

## **DEFINING EMI SOLUTIONS SINCE 1987** www.schlegelemi.com

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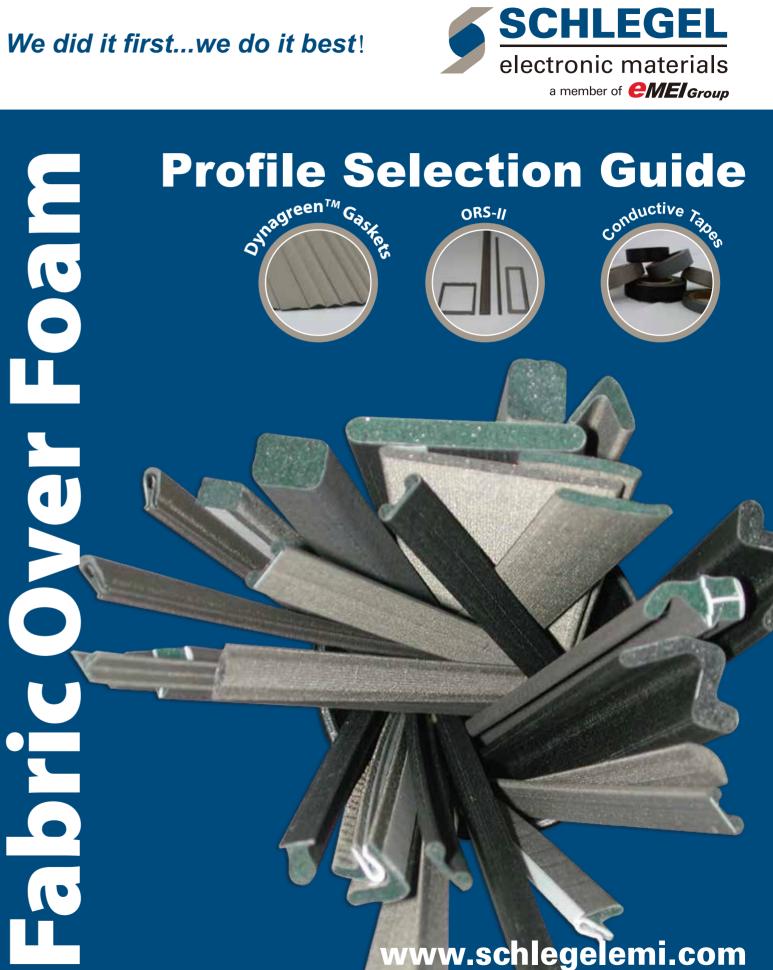
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## **Fabric Over Foam**

## **Contents**



As the inventor of conductive fabrics over foam shielding gaskets in 1987, Schlegel Electronic Materials (SEM) has always set the industry standard for highly flexible conductive fabrics. Over 20 years of continuous research and development on substrates, plating process and protective coatings confer today to our conductive fabrics improved shielding effectiveness, excellent environmental durability and abrasion resistance. References on the market, SEM's fabrics are used from grounding pads in consumer products to high frequency shielding gaskets in supercomputers. Fabric Over Foam technology provides continuous contact with applications which ensures consistent shielding efficiency at very high frequencies and is non-abrasive to plated and painted surfaces.

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information, please contact a SEM representative.

## **Reference Guide: Cross - Reference Guide to EMI Shielding Gaskets**

The listing below is a numerical listing of the fabric over foam profiles. For additional product and / or ordering information, please contact a SEM representative.

P21         C-Fuld         Solume         Solum         Solum         Solum	Profile	Complex Shape	Dimensions	Page#	Profile	Complex Shape	Dimensions	Page#	Profile	Complex Shape	Dimensions
Circle         Circle         Circle         Summa Adams         1         Dia         Restangle         Comme           Circle         Diano         Torm + Komm         1         Edia         Diano         Summa         Diano	F01	Bectangle	3.0mm × 4.0mm	15	E93*	Mini-Clip	3.05mm x 8.4mm	17	FN3	Rectangle	5.5mm × 10.0mm
CO         Pretangle         Lamin 4 dorm         13         DBS         Personality         Second         Seco										0	6.0mm × 6.5mm
bbs         District         Altern + Zamm         2         End         Control         Barrer         1         Dist         Recample         Altern + Zamm         2         Dist         Recample         3         Dist         Recample         3         Dist         Recample         3         Dist         Recample         3         Dist         Altern + Zamm         Control         Contro         Contro         Contro											6.5mm × 10.0mm
bols         Ratsingle         Zohm N 150,2mm         10         Eds <sup>2</sup> (Match J, Cala)         Balam, N 10,2mm         17         DB8         Restringle         Zohm           007         Restringle         Zohm N 10,2mm         14         D         Delayer         31mm 4, 24mm         20         PP         Restringle         Dolayer         Born         11mm 4, 24mm         20         PP         Restringle         Dolayer         Born         11mm 4, 24mm         20         PP         Restringle         Dolayer         Born         11mm 4, 24mm         Dolayer         Born         Dolayer         Dolayer         Dolayer         Born         Dolayer					E98						1.5mm × 3.8mm
bit         Rattangle         2.0mm e A. Jamm         14         DA         0.0mm         0.0mm         20         P1         0.0mm         0.0mm         0.0mm           011         Battangle         0.0mm         0	E05*		7.5mm × 15.0mm		E98* (Riveted)	C-Fold	9.8mm × 10.7mm		EN8		2.0mm × 18.0mm
Pick         Rectarging         2 Journey J. 20mm         110mm         2 Journey J. 20mm         120mm         2 Journey J. 20mm         120mm	E06		1.0mm × 7.0mm				1.0mm × 13.0mm		EN9*	Rectangle	3.2mm × 19.0mm
Color         Restangle         Lamma S. Baderm         14         LSA         D. Shape         Adama S. Baderm         20         F.73         Destangle         Baternagie           101         Datame         Lamma S. Johnn         11         Color         P. Shape         Lamma S. Lamma         10         D. Shape         Lamma S. Lamma         D. Shape         Lamma S. Lamma         11         D. Shape         Lamma S. Lamma         11         D. Shape         Lamma S. Lamma         D. Shape         Lamma S. Lamma         11         D. Shape         D. Shape         Lamma S. Lamma         D.	E07*	Rectangle	2.0mm × 41.3mm	14	EA1	D-Shape	3.1mm × 6.4mm	20	EP1	D-Shape	2.3mm × 8.0mm
E10         Debuse Debuse Debuse         C-Arm S abom         21         E-Ar Postage         1-Arm * (Lorm         17         C-Pa         Debuge         Bom           111         Rectangle         Lorm         13         EA         Pestage         Lorm         13         EA         Pestage         Born         Born         13         EA         Pestage         Betangle         13           114         Lebuse         Lebuse <td>E08</td> <td>Rectangle</td> <td>2.0mm × 10.0mm</td> <td>14</td> <td>EA3</td> <td>D-Shape</td> <td>3.1mm × 3.8mm</td> <td>20</td> <td></td> <td>Rectangle</td> <td>5.0mm × 14.5mm</td>	E08	Rectangle	2.0mm × 10.0mm	14	EA3	D-Shape	3.1mm × 3.8mm	20		Rectangle	5.0mm × 14.5mm
E11         Retrained         1.bmm x 10.bmm         10.Ad <sup>2</sup> LCA <sup>2</sup> <	E09*	Rectangle	2.0mm × 28.6mm	14		D-Shape	4.0mm $ imes$ $6.0$ mm	20		Rectangle	6.5mm × 14.5mm
C12         Destargile         Lotms x Lorm         C34         C Shape         Atoms x Lorm         C2         D6         Restargile         Atoms x Lorm         C2           C13         D Shape         Libms x Lorm         C Shape         Libms x Lorm         Libms	E10	D-Shape	6.4mm × 9.5mm			P-Shape	11.4mm × 16.0mm			D-Shape	8.5mm × 10.0mm
E13         L-Shupé         Shurn × LDorm         IS         E13 <sup>+</sup> Clup	E11	Rectangle	1.0mm × 10.0mm	13		Rectangle				Square	10.0mm × 10.0mm
E14         Square         Starm × Starm         16         E14         Square         Atom × Adom         16         E17         Square         Atom × Adom         16         E18         Square         Atom × Adom         17         E18         Square         Atom × Adom         17         E18         Square         Atom × Adom         17         E18         Square         E13         Square         Atom × Adom         17         E18         Square         CFold         Atom × Adom         17         E18         CFold         Atom × Adom         17         E18         CFold         Context											4.0mm × 8.0mm
E161         C. fold         11.6mm x 14.2mm 2.2         EBS         Rectangle         11.6mm x 14.0mm 14         ECP         T. Shape         1.6mm x 14.0mm           115         D. Shape         1.6mm x 14.0mm 17         EC3         C. Add         1.7mm x 4.0mm						D-Clip					5.1mm × 6.4mm
E17         DeShape         1.5mm         3.0mm         3.0mm         5.0mm         1.1mm         1.1mm           E18         Stating Part         3.0mm         3.0mm         5.0mm         1.2mm         1.2mm <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>7.0mm × 7.0mm</td></t<>											7.0mm × 7.0mm
E18         Square         3.0mm         15         C.G.         C.Fuld         6.4mm         11.amm         21         C.G.         P.Buage         11.amm           C10         Kolk         6.4mm         11.mm         17         C.G.         Restangle         2.0mm         12.0mm         6.4mm         3.0mm         3.0mm           C11         C.F.         Restangle         2.0mm         7.5mm         14         C.G.         B.S.         3.0mm           C12         C.F.         Restangle         2.0mm         7.5mm         14         C.G.         B.S.         3.0mm           C13         Restangle         3.0mm         5.0mm         S.S.         S.S.         S.S.         E.S.         Restangle         2.0mm         7.5mm         14         E.S.         Restangle         2.0mm         7.5mm         15         S.S.         Restangle         2.0mm         7.5mm         16         C.S.         Restangle         2.0mm         7.5mm         15         S.S.         Restangle         2.0mm         7.5mm         15         S.S.         Restangle         2.0mm         7.5mm         15         S.S.         Restangle         2.0mm         7.5mm         15         Restangle         2.0											6.4mm × 4.8mm
E19*         Knike Edge         S. Marri X B. Marri X B. Marri Y J.         EC3*         Rectangle         1.3 mm + 4.3 mm         13         EG4         D.S. Pape         3.0 mm         4.1 mm         13         EG4         D.S. Pape         3.0 mm         4.1 mm         14         EG3         D.S. Pape         3.0 mm         12.0 mm         14         Knike Edge         3.0 mm         12.0 mm         14         Knike Edge         3.0 mm         12.0 mm         14         Knike Edge         3.0 mm         12.0 mm         12.0 mm         13.0 mm         13         EG3         Rectangle         3.0 mm         13.0 mmm											11.8mm × 10.7mm
E20         Betangle         Betangle         30mm 15         E01         C31         C-Shape         Zmm           E4         C-Add         Admm x 25,mm         10         E05         Retrugtor         20mm x 25,mm         14         E04         D-Shape         3.3mm           E5         Retrugtor         Admm x 12,mm         16         E07         Retrugtor         20mm x 25,mm         14         E04         D-Shape         3.3mm           E5         Satap         3.1mm x 81,mm         17         E02         C-Shape         20mm x 85,mm         18         E63         Retrugtor         18         Kmfe Edge         1.5mm           E27         Sataf Mounting         16,mm x 55,mm         17         E05         Retrugtor         20mm x 45,mm         18         E63         Retrugtor         20mm x 45,mm         18         E63         Retrugtor         10mm x 55,mm         17         E05         Retrugtor         10mm x 55,mm         17         E05         Retrugtor         10mm x 55,mm         17         E05         Retrugtor         10mm x 55,mm         10mm         E63         C-Shape         20mm x 10,mm         10mm x 10,mm         10mm x 10,mm         10mm x 10,mm         10mm         10mm         10mm x 10,mm											11.4mm × 16.0mm
E12       C-Fold       C-Fold       D-Shape       2.5mm       1.4       E08       D-Shape       3.8mm       3.8mm         E18       Rectangle       2.5mm       1.5mm       2.5mm       1.5mm       2.5mm       3.8mm       3.8mm <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2.3mm × 6.0mm</td></th<>											2.3mm × 6.0mm
E24         Restingle         2.0mm × 12.mm         10         CD         D-Shape         5.0mm × 12.mm         21         E30         D-Shape         3.0mm           E25         Restangle         13.mm × 5.0mm         17         E10         Comm × 5.0mm         10         Comm × 5.0mm         13         Com × 5.0mm         10.0mm × 10.0mm         10.0mm ×											2.7mm × 6.0mm
Edstangle         6 Amm x 12 mm         16         ED1*         T-Shape         5 mm x 62 mm         22         ER1         Knife Edge         16         5 mm           27         P Starming         31 mm x 12 mm         13 mm         13 mm         15         ED3         5 mm											3.3mm × 6.0mm
E26         D-Shape         D-Shape         D-Shape         Samm         18         E12         Kulle Edge         Samm         18           E27         Splate         12 mm x 15 mm         12 mm x 15 mm         12 mm x 15 mm         13         ED         Rectangle         2 mm x 15 mm         14         EB         D-Shape         D-Shape <tdd< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3.8mm × 6.0mm</td></tdd<>											3.8mm × 6.0mm
E27         Self-Mounting         12,2mm x 5,2mm         17         ED3         Rectangle         3,4mm x 4,2mm         14         EB4         Bottangle         3,5mm           283         Restangle         1,2mm x 1,2mm         13         Sam x 4,0mm         2,0mm x 1,2mm         13         Sam x 1,2mm         13         Sam x 1,2mm         14         ED4         1,2mm x 1,2mm         13         Sam x 1,2mm         12         ED3         Sam x 1,2mm         14         ED3         Sam x 1,2mm         13         Sam x 1,2mm         12         ED3         Sam x 1,2mm         13         Sam x 1,2mm         12         ED3         Sam x 1,2mm         13         Sam x 1,2mm         14         ED3         Sam x 1,2mm         13         Sam x 1,2mm         14         Sam x 1,2mm         14         Sam x 1,2mm         13         Sam x 1,2mm         13         Sam x 1,2mm         14         ED3         Sam x 1,2mm         13         Sam x 1,2mm         14         ED3         Sam x 1,2mm         13         Sam x 1,2mm         12         Sam x 1,2mm         14         Sam x 1,2mm         12         Sam x 1,2mm         12         Sam x 1,2											1.0mm × 7.0mm
E28         Rectangle         1.2mm x 12.7mm 15         E14*         1.5hapé         3.0mm x 6.0mm         22         ER4         D-Shapé         5.0mm           E37         Rectangle         1.0mm x 6.0mm         14         ED5         Rectangle         3.0mm x 6.0mm         12         ER5         Rectangle         2.0mm											5.5mm × 10.0mm
E20         Rectangle         1.0mm × 25.4mm         13         ED5*         Rectangle         2.0mm × 43.0mm         15         EB6         D-Shape         2.6mm           E30*         Rectangle         2.0mm × 0.0mm         1.3mm         120         2.0mm × 1.30m         12         EB7         Rectangle         2.5mm           E31         D-Clip         4.0mm × 1.3mm         12         EB7         Rectangle         1.5mm × 10.0mm         14         EB7         Rectangle         2.5mm           E33         D-Clip         4.0mm × 1.3mm         17         E53         Rectangle         2.5mm         Rectangle         2.5mm         Rectangle         0.5mm           E34         Rectangle         1.0mm × 2.0mm         17         E547         D-Shape         2.5mm         Rectangle         0.5mm           E44         Rectangle         1.0mm × 2.0mm         12         D-Shape         2.0mm × 1.0mm         12         E53         Rectangle         0.5mm           E44*         Rectangle         1.0mm × 2.4mm         12         D-Shape         2.0mm × 1.0mm         12         E53         Rectangle         0.5mm           E44*         Rectangle         1.0mm × 2.4mm         12         D-Shape         2.0		5									1.5mm × 3.18mm
Bits         Rectangle         2.dnm x 60.mm         14         ED7         D.Shapa         2.dnm x 12.mm         19         EB6         Rectangle         2.dnm           Bits         Kafe Ege         2.mm x 13.mm         7         ED8         C-Fold         1.dnm x 10.mm         10         EB8         D.Shapa         5.0mm         5.											5.08mm × 6.35mm
E31         Krife Édge         2.7mm x 11.3mm         17         E08*         C-Fold         11.4mm x 16.0mm         22         E77         Betrangle         5.mm           E32         C-Fold         1.7mm x 1.7mm         20         E08         Rectangle         1.5mm x 6.0mm         13         E88         Delta per second											7.6mm × 6.9mm
E32         C-fold         17.1mm x H.2/mm         20         E09         Rectangle         1.5mm x 5.0mm         13         ER8         Bell-Shape         5.0mm           E35         C-Cipit         4.0mm x 2.0mm         17         E61         C-Fold         3.8mm x 10.7mm         20         E51         Pectangle         3.0mm           E37         Rectangle         1.0mm x 10.8mm         13         E63         C-Fold         3.8mm x 10.7mm         20         E51         Pectangle         0.5mm           E44         C-Fold         1.0mm x 10.8mm         13         E66*         D-Shape         E37         Rectangle         0.5mm x 4.0mm         14         E55         Rectangle         3.0mm           E44         D-Cip         4.0mm x 1.0mm         13         E66*         Square         4.0mm x 3.0mm         16         E57         Rectangle         3.0mm           E47         Rectangle         4.0mm x 1.0mm         17         E42         D-Shape         2.0mm x 1.2mm         10         E58         Rectangle         6.2mm           E47         Rectangle         1.0mm x 1.0mm         17         E42         D-Shape         2.0mm x 1.2mm         11         E11         Rectangle         2.0mm											2.5mm × 9.5mm
B35         D-Clip         4.0mm × 7.4mm         20         E52         Rectangle         1.5mm × 10.0mm         14         ER9         D-Shape         3.0mm           E37         Rectangle         1.0mm × 3.0mm         13         E64         D-Shape         3.0mm × 3.0mm         21         E53         Rectangle         0.5mm           E47         Rectangle         1.0mm × 3.0mm         13         E64         D-Shape         3.0mm         2.0mm × 1.0mm         14         E53         Rectangle         0.5mm           E41*         C-Fold         3.0mm × 1.0mm         14         E55         Rectangle         3.0mm           E44*         D-Clip         4.0mm × 2.6.4mm         15         E16         D-Shape         4.0mm × 1.2.7mm         16         E55         Rectangle         3.0mm           E44*         Rectangle         2.0mm × 1.0.4mm         17         E16         D-Shape         4.0mm × 1.2.7mm         16         E57         Rectangle         0.0mm           E44*         Rectangle         2.0mm × 1.0.4mm         17         E14         D-Shape         4.0mm × 1.2.7mm         17         E14         Rectangle         0.0mm           E44*         Rectangle         2.0mm × 2.0mm         17											5.0mm × 10.0mm
Base         Rectangle         2.0mm         Y         ES3         Rectangle         0.5mm         2.0mm         2.1mm         2.1mm <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>5.5mm × 15.0mm</td></t<>											5.5mm × 15.0mm
E37         Rectangle         1.0mm × 3.0mm         13         EG4         D.Shape         3.8mm × 12.7mm         20         E52         Rectangle         0.5mm           E40         C-fold         1.0mm × 18.0mm         21         E66         D.Shape         1.8mm × 4.4mm         14         E58         D.Shape         2.5mm           E44         D.Clip         4.0mm × 12.4mm         15         E66         D.Shape         1.8mm × 4.4mm         16         E58         Rectangle         3.0mm           E44         D.Clip         4.0mm × 2.5mm         15         E63         Rectangle         4.0mm × 12.7mm         16         E57         Rectangle         3.0mm           E44         D.Shape         3.0mm × 2.5mm         15         E63         Rectangle         4.0mm × 12.7mm         10         E53         Rectangle         6.0mm           E47         Rectangle         4.0mm × 2.5mm         15         E44         Rectangle         2.0mm × 12.7mm         11         E53         Rectangle         3.0mm         2.0mm × 12.7mm         12         E13         Rectangle         3.0mm         <											3.0mm × 12.7mm
E33         Rectangle         1.0mm × 18.0mm         13         EG5         U.Shape (Environmental Seal)         5.mm × 12.7mm         22         ES3         D.Shape         2.0mm           E41         T.Shape         5.1mm × 4.6mm         22         EG7         Rectangle         2.0mm × 18.0mm         16         ES5         Rectangle         3.0mm           E41         T.Shape         3.0mm × 2.6mm         16         ES7         Rectangle         3.0mm         3.0mm           E44         D.Shape         2.0mm × 10.0mm         16         ES7         Rectangle         6.0mm           E44         D.Shape         2.0mm × 12.0mm         12         ES8         Rectangle         6.0mm           E44         Rectangle         4.0mm × 12.7mm         10         EF4         Rectangle         6.0mm         2.0mm × 12.7mm         14         ET1         Rectangle         6.0mm           E44         Rectangle         2.0mm × 12.7mm         14         Rectangle         6.0mm         8.0mm         3.0mm           E45         C.Fold         8.0mm × 12.7mm         17         EF4         Rectangle         3.0mm           E55         C.Fold         8.0mm × 12.7mm         20         EF6         Rectangle </td <td></td> <td>0.5mm × 6.0mm</td>											0.5mm × 6.0mm
E40         C-Fold         10.0mm × 10.mm × 21         EG6*         D-Shape         1.0mm × 4.6mm         18         E54         D-Shape         2.0mm           E43*         D-Clip         4.0mm × 7.4mm         20         EG8         Square         6.0mm × 8.0mm         16         ES5         Restangle         3.0mm           E43*         Restangle         3.0mm × 7.4mm         20         EG8         Square         6.0mm × 8.0mm         16         ES5         Restangle         3.0mm           E44*         Restangle         3.0mm × 7.4mm         15         EH2         D-Shape         2.0mm × 17.0mm         18         ES9         Restangle         6.2mm           E47*         Restangle         4.0mm × 17.0mm         17         EH2         D-Shape         2.0mm × 17.2mm         18         Restangle         1.0mm           E51         Low D-Shape         2.0mm × 17.1mm         19         EH4         Restangle         2.0mm         14         ET2         BelShape         3.0mm           E53*         T-Shape         2.0mm × 17.0mm         17         EH4         Restangle         2.0mm         14         ET3         Restangle         1.0mm           E53*         T-Shape         2.0mm × 12.mm											0.5mm × 17.0mm
E41         T-Shape         5.1mm × 4.8mm         22         EG7*         Rectangle         2.0mm × 10.mm         14         ES5         Rectangle         3.0mm           E44*         Pactangle         3.0mm × 7.4mm         15         EG8*         Rectangle         6.4mm × 41.3mm         16         ES6         Rectangle         6.0mm           E44         D-Shape         2.0mm × 2.6mm         14         D-Shape         2.0mm × 17.1mm         10         ET6         Rectangle         6.0mm           E45         D-Shape         2.0mm × 17.1mm         17         EF6         C.0mm × 17.1mm         17         EF6         Bell-Shape         3.0mm           E51         Low D-Shape         7.0mm × 8.2mm         17         EF6         Nons × 17.1mm         17         EF6         Rectangle         1.0mm           E53         T-Shape         7.0mm × 8.2mm         12         EF6         D-Shape         4.0mm × 12.7mm         17         EF6         Rectangle         1.0mm           E55         C-Fold         8.1mm × 7.4mm         17         EF6         Nons × 10.7mm         17         EF4         Rectangle         1.0mm           E55         Rectangle         3.0mm × 12.mm         12         EF7											2.0mm × 6.0mm
E43*         D-Clip         4.0mm × 2.4mm         20         E68         Square         8.0mm         16         E58         Rectangle         3.0mm           E44*         Rectangle         3.0mm × 2.5 mm         15         E69*         Rectangle         4.0mm × 1.2 mm         20         E58         Rectangle         6.0mm           E47*         Rectangle         4.0mm × 1.1 mm         15         E14         D-Shape         20mm × 1.2 mm         20         E14         D-Shape         20mm × 1.2 mm         10         E14         Rectangle         6.2 mm           E47*         Rectangle         20mm × 1.1 mm         17         E14         D-Shape         20mm × 1.2 mm         11         E14         Rectangle         6.2 mm           E52*         Verbag         7.8 mm × 6.0 mm         21         E14*         Knife Edge         2.7 mm × 1.3 mm         17         E14         Rectangle         1.0 mm           E55*         C-Fold         6.3 mm × 2.3 mm         19         E14*         D-Shape         3.5 mm × 1.0 mm         2.2         E16         D-Shape         1.5 mm           E56*         C-Fold         8.1 mm × 2.3 mm         13         E14         Rectangle         0.5 mm × 1.0 mm         1.5 mm											2.5mm × 6.4mm
E44         Bectangle         3.0mm × 25.4mm         15         E63*         D.Shape         3.0mm × 3.5mm         19         E141         D.Shape         2.0mm × 1.2mm         19         E53         Rectangle         6.0mm           E47*         Rectangle         4.6mm × 1.4.3mm         15         E142         D.Shape         2.0mm × 1.7.mm         19         E53         Rectangle         6.2mm           E49*         Square         2.0mm × 1.7.mm         17         E143         C.Fold         8.0mm × 2.0.7mm         11         E13         Rectangle         6.2mm           E55         T.Shape         2.0mm × 1.7.mm         17         E146         Rectangle         2.0mm × 1.7.mm         17         E14         Rectangle         1.0mm           E55         T.Shape         2.0mm × 1.2.mm         2.1         E148         Rectangle         2.0mm × 1.2.mm         10.0mm × 2.0.0mm         12         E16         Rectangle         1.0mm           E55         C.Fold         5.8mm × 1.2.mm         10         D.Shape         2.0mm × 1.2.mm         10.0mm × 2.0.0mm         12         E16         D.Shape         2.0mm × 1.2.mm         12         E16         Rectangle         1.5mm           E56*         C.Fold         9.0m											3.0mm × 7.0mm
E45       D-Shape       2.3mm x 3.3mm       19       EH1       D-Shape       2.0mm x 12.7mm       20       E58       Rectangle       6.0mm         E47       Rectangle       17.0mm x 17.0mm       17       EH2       D-Shape       2.0mm x 10.7mm       21       ET1       Rectangle       6.2mm         E43       Square       17.0mm x 17.0mm       17       EH3       C-Fold       8.0mm x 2.0mm       21       ET3       Rectangle       3.0mm         E55       C-Fold       7.0mm x 12.7mm       21       ET3       Rectangle       3.0mm         E56       C-Fold       8.0mm x 12.7mm       21       ET6       Rectangle       1.0mm         E56       C-Fold       8.0mm x 2.0mm       12       ET6       D-Shape       3.0mm x 3.0mm       1.0mm         E57       D-Shape       2.0mm x 2.0mm       14       EJ1       D-Shape       5.0mm x 10.7mm       21       ET6       D-Shape       2.0mm											3.0mm × 16.0mm
E47*         Rectangle         4.6mm × 4.1.3mm         15         EH2         O-Shape         2.0mm × 17.2mm         19         ES3         Rectangle         6.2mm           E49         Siguare         2.0mm × 17.1mm         19         EH4         Rectangle         2.0mm × 2.2mm         14         ET2         Bell-Shape         3.0mm           E51         Uvedge         0.0mm × 8.0mm         22         EH4         Rectangle         2.0mm × 12.7mm         11         ET3         Rectangle         1.0mm           E55         C-Fold         8.mm × 12.7mm         21         EH4         No.5hape         2.0mm × 11.3mm         17         ET4         Rectangle         1.0mm           E55         C-Fold         8.1mm × 7.4mm         21         EH4         T.Shape         10.0mm × 10.0mm         2.0mm × 10.0mm         1.0mm         1.0mm         1.0mm × 10.0mm         2.0mm         E16         Rectangle         1.0mm         1.0mm × 10.0mm         1.0mm × 10.0mm<											5.0mm × 12.0mm 6.0mm × 25.4mm
E49Square17,0mm × 17,0mm17EH3C-Fold8,0mm × 21,0mm × 21ET1Rectangle6,0mm × 20,0mmE51Low D-Shape4,0mm × 8,2mm17EH6D-Shape9,5mm × 12,7mm11ET3Rectangle1,0mmE53T-Shape4,0mm × 8,2mm12EH6D-Shape2,7mm × 11,3mm17ET6Rectangle1,0mmE65C-Fold8,mm × 12,2mm21EH7D-Shape4,0mm × 12,7mm20ET6Rectangle1,0mmE66C-Fold8,mm × 12,2mm21EH7D-Shape1,0mm × 10,0mm22ET6Rectangle1,5mmE57D-Shape2,3mm × 2,3mm19EH8C-Fold9,8mm × 10,7mm21ET7Rectangle1,5mmE58Rectangle2,3mm × 2,3mm13E12T-Shape4,0mm × 2,2mm21ET8Rectangle0,5mmE58Rectangle0,5mm × 5,0mm13E12T-Shape4,0mm × 2,2mm21ET8Rectangle0,5mmE61Rotangle3,mm × 13,2mm13E14Rectangle6,0mm × 2,0mm10EU4Rectangle0,5mmE63Rotangle3,mm × 12,7mm16E16Rectangle1,0mm × 15,0mm13E14Rectangle2,0mmE64Rotangle3,mm × 12,7mm16E17Rectangle1,0mm × 15,0mm13EU4Rectangle2,0mmE65Rotangle4,7mm × 12,0mm16E17Rect											6.2mm × 22.0mm
E51       Low D-Shape       2.0mm x 17.1mm       19       EH4*       Rectangle       2.0mm x 12.0mm       14       ET2       Belchape       3.0mr         E52*       Wedge       4.0mm x 8.2mm       17       EF4       Rectangle       1.0mr         E55*       C-Fold       8.mm x 12.2mm       21       EF4       Norma x 12.mm       17       EF4       Rectangle       1.0mr         E56*       C-Fold       6.1mm x 7.4mm       21       EF4       T-Shape       1.0mm x 10.0mm       22       EF6       D-Shape       1.5mr         E57       D-Shape       2.0mm x 21.0mm       14       E11       D-Shape       5.mm x 10.7mr       21       EF8       Rectangle       0.5mm       5.mm x 12.7mr       21       EF8       Rectangle       0.5mm       5.mm x 12.7mm       21       EF8       Rectangle       0.5mm x 5.mm       16       EU<1											6.2mm × 28.5mm
E52*       Wedge       4.0mm x 8.2mm       17       EH5       D-Shape       9.53mm x 12.7mm       21       ET3       Rectangle       1.0mm         E55*       C-Fold       9.8mm x 12.7mm       21       EH6       Knife Edge       2.7mm x 11.3mm       17       ET4       Rectangle       1.0mm         E56*       C-Fold       9.8mm x 12.7mm       21       EH7       D-Shape       4.0mm x 12.7mm       20       ET6       D-Shape       1.5mm         E56*       C-Fold       9.8mm x 10.7mm       21       ET7       Rectangle       0.5mm x 12.7mm       21       ET7       Rectangle       1.5mm         E58       Rectangle       0.5mm x 2.7mm       13       E.12       T-Shape       4.0mm x 6.2mm       22       ET9       D-Shape       2.5mm       2.5mm <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3.0mm × 8.0mm</td></td<>											3.0mm × 8.0mm
E53*       T-Shape       7.6mm × 6.9mm       22       EH6*       Kife Edge       2.7mm × 11.3mm       17       ET4       Rectangle       1.0mm         E55*       C-Fold       6.1mm × 7.4mm       21       EH8*       T-Shape       1.0mm × 10.0mm       22       ET6       D-Shape       1.5mm         E57       D-Shape       2.0mm × 21.0mm       14       EJ1       D-Shape       5.5mm × 12.7mm       21       ET8       Rectangle       0.5mm         E58       Rectangle       2.0mm × 21.0mm       14       EJ1       D-Shape       5.5mm × 12.7mm       21       ET8       Rectangle       0.5ma         E60       P-Shape       3.3mm × 13.2mm       17       EJ4       Rectangle       0.0mm × 8.0mm       16       EU1       Rectangle       2.5mm         E61       Rectangle       3.7mm × 1.3mm       17       EJ4*       Rectangle       1.0mm × 1.5mm       13mm × 1.2mm       20       EU4       Rectangle       3.0mm       13mm × 1.2mm       20       EU4       Rectangle       3.0mm × 1.0mm       13       EU4       Rectangle       1.0mm × 15.0mm       13       EU4       Rectangle       3.0mm       13mm × 12.0mm       13       EU5       Rectangle       3.0mm       16											1.0mm × 11.0mm
E55       C-Fold       9.8mm × 12.2mm       21       EH7       D-Shape       4.0mm × 12.7mm       20       ET6       Rectangle       1.0mm         E57       D-Shape       2.3mm × 2.3mm       19       EH9       C-Fold       9.8mm × 10.7mm       21       ET7       Rectangle       1.5mm         E58       Rectangle       0.5mm × 12.7mm       21       ET7       Rectangle       0.5mm         E60       P-Shape       0.5mm × 12.7mm       21       ET8       Rectangle       0.5mm         E61       Rectangle       0.5mm × 1.5mm       13       EJ2       T-Shape       4.0mm × 6.2mm       22       ET9       D-Shape       0.5mm         E61       Rectangle       1.5mm × 7.0mm       13       EJ2       D-Shape       3.8mm × 12.7mm       20       EU2       Rectangle       0.5mm         E62       Rectangle       1.5mm × 7.0mm       13       EJ3       D-Shape       2.0mm × 10.0mm       13       EU2       Rectangle       2.0mm         E63       Square       9.5mm × 12.7mm       16       EJ3       D-Shape       2.0mm × 10.0mm       19       EU3       D-Shape       2.0mm         E64       D-Shape       2.0mm × 10.0mm       16											1.0mm × 13.6mm
E56*       C-Fold       6.1mm × 7.4mm       21       EH8*       T-Shape       10.0mm × 10.0mm       22       E76       D-Shape       1.5mm         E57       D-Shape       2.0mm × 21.0mm       14       EJ1       D-Shape       55mm × 12.7mm       21       E78       Rectangle       0.5mm         E59       Rectangle       2.0mm × 21.0mm       13       EJ2       T-Shape       4.0mm × 2.0mm       12       E78       Rectangle       0.5mm         E60       P-Shape       3.3mm × 13.2mm       17       EJ4       Rectangle       6.0mm × 8.0mm       16       EU2       Rectangle       2.0mm         E61       Rectangle       3.2mm × 9.5mm       16       EJ6       Rectangle       5.0mm × 10.0mm       13       EU4       Rectangle       2.0mm         E63       Square       3.5mm × 9.5mm       16       EJ7       Rectangle       5.0mm × 10.0mm       19       EU7       Rectangle       2.0mm         E64       Rectangle       3.7mm × 12.7mm       16       EJ8       D-Shape       2.0mm × 10.0mm       19       EU8       D-Shape       2.7mm         E66       Rectangle       6.4mm × 2.7mm       16       EK1       D.Shape       2.7mm       10.0mm <td></td> <td>1.0mm × 16.0mm</td>											1.0mm × 16.0mm
E57       D-Shape       2.3mm × 2.3mm       19       EH9       C-Fold       9.8mm × 10.7mm       21       ET7       Rectangle       1.5mm         E58       Rectangle       0.5mm × 5.0mm       13       EJ2       T-Shape       4.0mm × 6.2mm       22       ET9       D-Shape       2.5mm         E60       P-Shape       3.3mm × 13.2mm       13       EJ2       T-Shape       4.0mm × 6.2mm       22       ET9       D-Shape       2.5mm         E61       Rectangle       1.5mm × 7.0mm       13       EJ5       D-Shape       3.18mm × 12.7mm       20       EU2       Rectangle       2.0mm         E62       Rectangle       3.2mm × 9.5mm       16       EJ5       Rectangle       1.0mm × 15.0mn       13       EU4       Rectangle       2.0mm         E63       Square       9.5mm × 9.5mm       16       EJ7       Rectangle       2.0mm × 10.0mm       19       EU3       Reltangle       3.0mm         E64       Rectangle       3.7mm × 21.0mm       17       EX2       D-Shape       2.3mm × 10.0mm       19       EU3       D-Shape       3.3mm         E66       Rectangle       3.7mm × 21.0mm       17       EX2       D-Shape       3.3mm × 10.0mm       20 <td></td> <td>1.5mm × 6.4mm</td>											1.5mm × 6.4mm
E58Rectangle $2.0\text{mm} \times 1.0\text{mm}$ $14$ EJ1D-Shape $5.mm \times 12.7\text{mm}$ $21$ ET8Rectangle $0.5\text{mm}$ E59Rectangle $0.5\text{mm} \times 13.2\text{mm}$ $13$ EJ2T-Shape $0.5\text{mm} \times 12.7\text{mm}$ $21$ ET8Rectangle $0.5\text{mm}$ E61Rectangle $1.5\text{mm} \times 7.0\text{mm}$ $13$ EJ5D-Shape $3.8\text{mm} \times 15.7\text{mm}$ $16$ EU1Rectangle $2.0\text{mm}$ E63Square $3.5\text{mm} \times 3.5\text{mm}$ $16$ EJ6Rectangle $1.0\text{mm} \times 15.0\text{mm}$ $13$ EU4Rectangle $2.0\text{mm}$ E64D-Shape $3.5\text{mm} \times 12.7\text{mm}$ $16$ EJ7Rectangle $5.0\text{mm} \times 3.0\text{mm}$ $16$ EU7Belangle $3.0\text{mm}$ E65Rectangle $3.7\text{mm} \times 12.0\text{mm}$ $16$ EV19D-Shape $2.3\text{mm} \times 10.0\text{mm}$ $19$ EU8D-Shape $2.5\text{mm}$ E66Rectangle $6.4\text{mm} \times 3.5\text{mm}$ $16$ EV19D-Shape $2.7\text{mm} \times 10.0\text{mm}$ $19$ EU9D-Shape $3.6\text{mm}$ E67Knife Edge $2.7\text{mm} \times 12.7\text{mm}$ $16$ EX4D-Shape $3.8\text{mm} \times 10.0\text{mm}$ $20$ EV2D-Shape $3.0\text{mm}$ E70Rectangle $3.0\text{mm} \times 8.0\text{mm}$ $16$ EX4D-Shape $3.0\text{mm} \times 12.7\text{mm}$ $19$ EV6D-Shape $3.0\text{mm}$ E74Rectangle $3.0\text{mm} \times 8.0\text{mm}$ $16$ EV6D-Shape $3.0\text{mm} \times 12.7\text{mm}$ $10$ EV6D-Sha											1.5mm × 16.2mm
E59       Rectangle       0.5mm × 5.0mm       13       EJ2       T-Shape       4.0mm × 6.2mm       22       E79       D-Shape       2.5map         E60       P-Shape       3.3mm × 13.2mm       17       EJ4       Rectangle       0.0mm × 5.0mm       16       EU2       Rectangle       0.5map         E61       Rectangle       1.3mm × 7.0mm       13       EJ6       D-Shape       3.18mm × 12.7mm       20       EU2       Rectangle       0.5mm         E62       Rectangle       3.2mm × 15.0mm       13       EJ6       Rectangle       0.3mm × 15.0mm       16       EU2       Rectangle       2.0mm         E63       Square       9.5mm × 12.7mm       16       EJ7       Rectangle       2.0mm × 10.0mm       19       EU3       D-Shape       2.7mm         E66       Rectangle       6.4mm × 5.0mm       16       EK1       D-Shape       2.7mm × 10.0mm       19       EU3       D-Shape       3.3mm         E67       Knife Edge       2.7mm × 11.3mm       17       EK2       D-Shape       3.3mm × 10.0mm       20       EV1       D-Shape       3.3mm         E70       Rectangle       5.3mm × 12.7mm       16       EK3       D-Shape       2.3mm       2.7mm<											0.5mm × 22.5mm
E60       P-Shape       3.3mm × 13.2mm       17       E/4       Rectangle       6.0mm × 8.0mm       16       E/1       Rectangle       0.5mm         E61       Rectangle       3.2mm × 9.5mm       13       E/5       Rectangle       3.1mm × 15.0mm       13       E/4       Rectangle       2.0mm         E63       Square       9.5mm × 9.5mm       16       E/5       Rectangle       5.0mm × 9.0mm       16       E/3       Square       2.0mm × 10.0mm       19       E/3       Rectangle       3.0mm       2.5mm         E64       D-Shape       4.7mm × 12.0mm       16       E/1       D-Shape       2.3mm × 10.0mm       19       E/3       D-Shape       2.7mm         E66       Rectangle       9.5mm × 1.7mm       16       E/3       D-Shape       2.3mm × 10.0mm       19       E/3       D-Shape       2.3mm         E66       Rectangle       9.5mm × 1.7mm       16       E/3       D-Shape       2.3mm × 10.0mm       20       E/3       D-Shape       2.3mm         E67       Rectangle       9.5mm × 1.7mm       16       E/3       D-Shape       2.3mm × 10.0mm       20       E/3       D-Shape       2.3mm         E68       Rectangle       3.3mm × 1.7mm </td <td></td> <td>2.5mm × 7.6mm</td>											2.5mm × 7.6mm
E61       Rectangle       1.5mm × 7.0mm       13       EL6       D-Shape       3.18mm × 12.7mm       20       EU2       Rectangle       2.0mm         E62       Rectangle       3.2mm × 9.5mm       16       EL6*       Rectangle       5.0mm × 9.0mm       13       EU4       Rectangle       3.0mm         E63       Square       9.5mm × 9.5mm       16       EJ7       Rectangle       5.0mm × 9.0mm       16       EU5       Rectangle       3.0mm         E64       D-Shape       3.7mm × 12.0mm       15       EJ9       D-Shape       2.0mm × 10.0mm       19       EU8       D-Shape       2.7mm         E66       Rectangle       3.7mm × 12.7mm       16       EK1       D-Shape       2.7mm × 10.0mm       19       EU8       D-Shape       3.7mm         E67       Knife Edge       2.7mm × 11.3mm       17       EK2       D-Shape       3.7mm × 10.0mm       20       EV1       D-Shape       3.7mm         E70       Rectangle       3.5mm × 10.7mm       16       EK3       D-Shape       2.7mm × 12.7mm       19       EV3       D-Shape       3.7mm         E74       Rectangle       3.3mm × 10.7mm       19       EV7       D-Shape       3.3mm       2.7mm <td></td> <td>0.5mm × 15.0mm</td>											0.5mm × 15.0mm
E62       Retangle       3.2mm × 9.5mm       15       E.4       Rectangle       1.0mm × 15.0mm       13       EU4       Rectangle       3.0mm         E63       Square       9.5mm × 9.5mm       16       E.17       Rectangle       5.0mm × 10.0mm       16       EU5       Rectangle       3.0mm         E64*       D-Shape       3.7mm × 12.0mm       15       E.9       D-Shape       2.3mm × 10.0mm       19       EU8       D-Shape       2.7mm         E66       Rectangle       6.4mm × 9.5mm       16       EX1       D-Shape       2.7mm × 10.0mm       19       EU9       D-Shape       6.4mm         E66       Rectangle       9.5mm × 12.7mm       16       EX1       D-Shape       3.7mm × 10.0mm       20       EV1       D-Shape       6.4mm         E67       Knife Edge       9.5mm × 12.7mm       16       EX3       D-Shape       2.3mm × 10.0mm       20       EV1       D-Shape       3.3mm         E70       Rectangle       3.5mm × 12.7mm       10       EV2       D-Shape       2.3mm       2.3mm × 12.7mm       19       EV3       D-Shape       3.3mm         E73       Rectangle       5.0mm × 25.4mm       17       EK4       D-Shape       2.3mm											2.0mm × 2.5mm
E63       Square       9.5mm × 9.5mm       16       E/J       Rectangle       5.0mm × 9.0mm       16       EU5       Rectangle       3.0mm         E64       D-Shape       4.7mm × 12.2mm       21       EJ8       D-Shape       2.0mm × 10.0mm       19       EU8       D-Shape       2.5mm         E65       Rectangle       3.7mm × 21.0mm       16       EJ8       D-Shape       2.3mm × 10.0mm       19       EU8       D-Shape       2.7mm         E66       Rectangle       3.7mm × 11.3mm       16       EK1       D-Shape       2.7mm × 10.0mm       19       EU8       D-Shape       3.7mm         E67       Knife Edge       2.7mm × 11.3mm       17       EK2       D-Shape       3.7mm × 10.0mm       20       EV1       D-Shape       3.7mm         E70       Rectangle       3.7mm × 64mm       15       EK4       D-Shape       2.7mm × 10.0mm       20       EV3       D-Shape       3.7mm         E73       Rectangle       3.7mm × 8.4mm       15       EK4       D-Shape       2.7mm × 12.7mm       19       EV6       D-Shape       3.7mm         E74       Rectangle       3.7mm × 15.7mm       16       EK8       D-Shape       3.7mm × 12.7mm       20											2.0mm × 3.0mm
E64*       D-Shape       4.7mm × 12.2mm       21       E.8       D-Shape       2.0mm × 10.0mm       19       EU7       Bell-Shape       2.7mm         E66       Rectangle       3.7mm × 21.0mm       15       E.9       D-Shape       2.7mm × 10.0mm       19       EU8       D-Shape       2.7mm         E66       Rectangle       6.4mm × 9.5mm       16       EV3       D-Shape       2.7mm × 10.0mm       19       EU9       D-Shape       3.7mm         E67       Knife Edge       2.7mm × 11.3mm       17       EK2       D-Shape       3.7mm × 10.0mm       20       EV1       D-Shape       3.7mm         E68       Rectangle       9.7mm × 12.7mm       16       EK2       D-Shape       3.7mm × 10.0mm       20       EV3       D-Shape       3.7mm         E70       Rectangle       3.7mm × 6.4mm       15       EK4       D-Shape       2.7mm × 12.7mm       19       EV3       D-Shape       3.7mm         E74       Rectangle       3.7mm × 25.4mm       17       EK7       D-Shape       3.7mm × 12.7mm       19       EV1       D-Shape       3.7mm         E75       Rectangle       4.0mm × 15.0mm       17       EK8       D-Shape       3.7mm × 12.7mm       20		0				•				0	3.0mm × 2.0mm
E65       Rectangle       3.7mm × 21.0mm       15       EJ9       D-Shape       2.3mm × 10.0mm       19       EU8       D-Shape       2.7mm         E66       Rectangle       6.4mm × 9.5mm × 11.3mm       17       EK2       D-Shape       2.7mm × 10.0mm       19       EU9       D-Shape       6.4mm         E67       Knife Edge       2.7mm × 11.3mm       17       EK2       D-Shape       3.3mm × 10.0mm       20       EV1       D-Shape       3.3mm         E68       Rectangle       3.7mm × 12.7mm       16       EK2       D-Shape       3.3mm × 10.0mm       20       EV1       D-Shape       4.6mm         E70       Rectangle       3.7mm × 12.7mm       16       EK3       D-Shape       2.0mm × 12.7mm       19       EV3       D-Shape       3.3mm         E74       Rectangle       3.0mm × 2.0mm       16       EK5       D-Shape       2.7mm × 12.7mm       19       EV7       D-Shape       3.3mm         E75       Rectangle       15.9mm × 25.4mm       17       EK7       D-Shape       3.3mm × 12.7mm       20       EV8       D-Shape       2.3mm         E77       Rectangle       2.0mm × 7.0mm       14       EK8       D-Shape       3.3mm × 12.7mm						D-Shane					2.5mm × 7.6mm
E66         Retaragle         6.4mm × 9.5mm         16         EK1         D-Shape         2.7mm × 10.0mm         19         EU9         D-Shape         6.4mm           E67         Knife Edge         2.7mm × 11.3mm         17         EK2         D-Shape         3.3mm × 10.0mm         20         EV1         D-Shape         3.3mm           E68         Rectangle         9.5mm × 12.7mm         16         EK3         D-Shape         2.0mm × 12.7mm         19         EV3         D-Shape         2.0mm           E73         Rectangle         3.3mm × 4.8mm         15         EK4         D-Shape         2.3mm × 12.7mm         19         EV7         D-Shape         3.3mm           E74         Rectangle         3.3mm × 4.8mm         15         EK6         D-Shape         3.3mm × 12.7mm         19         EV7         D-Shape         3.3mm           E77         Rectangle         15.9mm × 25.4mm         17         EK7         D-Shape         3.3mm × 12.7mm         20         EV8         D-Shape         2.3mm           E77         Rectangle         15.9mm × 25.4mm         17         EK7         D-Shape         3.3mm × 12.7mm         20         EV8         D-Shape         2.3mm           E78											2.7mm × 8.0mm
E67       Knife Edge       2.7mm × 11.3mm       17       EK2       D-Shape       3.3mm × 10.0mm       20       EV1       D-Shape       3.3mm         E68       Rectangle       9.5mm × 12.7mm       16       EK3       D-Shape       3.8mm × 10.0mm       20       EV2       D-Shape       4.6mm         E70       Rectangle       3.2mm × 6.4mm       15       EK4       D-Shape       2.0mm × 12.7mm       19       EV3       D-Shape       2.0mm         E73       Rectangle       3.3mm × 4.8mm       15       EK4       D-Shape       2.3mm × 12.7mm       19       EV6       D-Shape       3.3mm         E75       Rectangle       3.3mm × 25.4mm       17       EK7       D-Shape       3.3mm × 12.7mm       19       EV4       D-Shape       3.3mm         E75       Rectangle       2.0mm × 7.0mm       14       EK8       D-Shape       3.3mm × 12.7mm       20       EV8       D-Shape       2.7mm         E77       Rectangle       4.0mm × 15.0mm       17       EK8       D-Shape       3.3mm × 12.7mm       20       EV9       Knife Edge       2.7mm         E79       Square       6.0mm × 16.0mm       16       UC301612*       Wedge       11.1mm × 33.3mm											6.4mm × 6.4mm
E68         Rectangle         9.5mm × 12.7mm         16         EK3         D-Shape         3.8mm × 10.0mm         20         EV2         D-Shape         4.6mm           E70         Rectangle         3.2mm × 6.4mm         15         EK4         D-Shape         2.0mm × 12.7mm         19         EV3         D-Shape         2.0mm           E73         Rectangle         3.0mm × 6.0mm         16         EK5         D-Shape         2.0mm × 12.7mm         19         EV6         D-Shape         3.3mm           E74         Rectangle         3.3mm × 4.8mm         15         EK6         D-Shape         2.3mm × 12.7mm         19         EV7         D-Shape         3.8mm           E75         Rectangle         15.9mm × 25.4mm         17         EK7         D-Shape         3.8mm × 12.7mm         20         EV9         Knife Edge         2.7mm           E77         Rectangle         4.0mm × 15.0mm         14         EK8         D-Shape         3.8mm × 12.7mm         20         EV9         Knife Edge         2.7mm           E78         Rectangle         4.0mm × 15.0mm         16         UC301612*         Wedge         11.1mm × 3.3mm         17         EW2         Rectangle         1.0mm           E80											3.3mm × 4.8mm
E70       Rectangle       3.2mm × 6.4mm       15       EK4       D-Shape       2.0mm × 12.7mm       19       EV3       D-Shape       2.0mm         E73       Rectangle       5.0mm × 8.0mm       16       EK5       D-Shape       2.3mm × 12.7mm       19       EV6       D-Shape       3.3mm         E74       Rectangle       3.3mm × 4.8mm       15       EK6       D-Shape       2.3mm × 12.7mm       19       EV6       D-Shape       3.3mm         E75*       Rectangle       15.9mm × 25.4mm       17       EK7       D-Shape       3.3mm × 12.7mm       20       EV8       D-Shape       2.3mm         E77       Rectangle       2.0mm × 7.0mm       14       EK8       D-Shape       3.3mm × 12.7mm       20       EV8       D-Shape       2.7mm         E78       Rectangle       0.0mm × 15.0mm       15       EK8       D-Shape       2.0mm × 6.0mm       18       EW1       D-Shape       2.7mm         E79       Square       6.0mm × 6.0mm       16       UC301612*       Wedge       11.1mm × 33.3mm       17       EW2       Rectangle       4.0mm         E81       Rectangle       0.5mm × 4.0mm       13       EM2*       D-Shape       4.3mm × 12.7mm       21<											4.6mm × 10.2mm
E73       Rectangle       5.0mm × 8.0mm       16       EK5       D-Shape       2.3mm × 12.7mm       19       EV6       D-Shape       3.3mm         E74       Rectangle       3.3mm × 4.8mm       15       EK6       D-Shape       2.7mm × 12.7mm       19       EV7       D-Shape       3.8mm         E75*       Rectangle       15.9mm × 25.4mm       17       EK7       D-Shape       3.3mm × 12.7mm       20       EV8       D-Shape       2.3mm         E77       Rectangle       2.0mm × 7.0mm       14       EK8       D-Shape       3.8mm × 12.7mm       20       EV8       D-Shape       2.7mm         E78       Rectangle       4.0mm × 15.0mm       15       EK9       D-Shape       2.0mm × 6.0mm       18       EW1       D-Shape       1.0mm         E79       Square       6.0mm × 6.0mm       16       UC301612*       Wedge       11.1mm × 33.3mm       17       EW2       Rectangle       4.0mm         E80       Rectangle       2.0mm × 4.0mm       14       EM3*       D-Shape       5.2mm × 17.2mm       21       EW4       Rectangle       1.5mm         E81       Rectangle       0.5mm × 4.0mm       13       EM4*       C-Fold       9.8mm × 10.7mm       2											2.0mm × 8.0mm
E74       Rectangle       3.3mm × 4.8mm       15       EK6       D-Shape       2.7mm × 12.7mm       19       EV7       D-Shape       3.8mm         E75*       Rectangle       15.9mm × 25.4mm       17       EK7       D-Shape       3.3mm × 12.7mm       20       EV8       D-Shape       2.3mm         E77       Rectangle       2.0mm × 7.0mm       14       EK8       D-Shape       3.8mm × 12.7mm       20       EV8       D-Shape       2.3mm         E78       Rectangle       4.0mm × 15.0mm       15       EK9       D-Shape       2.0mm × 6.0mm       18       EW1       D-Shape       1.0mm         E79       Square       6.0mm × 6.0mm       16       UC301612*       Wedge       11.1mm × 33.3mm       17       EW2       Rectangle       4.0mm         E80       Rectangle       11.5mm × 10.5mm       17       EM2*       D-Shape       5.25mm × 17.2mm       21       EW3       D-Shape       5.8mm         E81       Rectangle       0.5mm × 4.0mm       14       EM3*       D-Shape       4.3mm × 12.7mm       21       EW4       Rectangle       0.7mm         E83       Rectangle       0.5mm × 4.0mm       13       EM4*       C-Fold       9.8mm × 10.7mm       <											3.3mm × 8.0mm
E75*       Rectangle       15.9mm × 25.4mm       17       EK7       D-Shape       3.3mm × 12.7mm       20       EV8       D-Shape       2.3mm         E77       Rectangle       2.0mm × 7.0mm       14       EK8       D-Shape       3.8mm × 12.7mm       20       EV9       Knife Edge       2.7mm         E78       Rectangle       4.0mm × 15.0mm       15       EK9       D-Shape       2.0mm × 6.0mm       18       EW1       D-Shape       1.0mm         E79       Square       6.0mm × 6.0mm       16       UC301612*       Wedge       11.1mm × 33.3mm       17       EW2       Rectangle       4.0mm         E80       Rectangle       11.5mm × 10.5mm       17       EM2*       D-Shape       5.25mm × 17.2mm       21       EW3       D-Shape       5.8mm         E81       Rectangle       2.0mm × 4.0mm       14       EM3*       D-Shape       4.3mm × 12.7mm       21       EW4       Rectangle       1.5mm         E84       Rectangle       0.5mm × 4.0mm       13       EM4*       C-Fold       9.8mm × 10.7mm       21       EW6       Rectangle       1.5mm         E84*       Rectangle       0.5mm × 2.0mm       17       EM5       D-Shape       3.5mm × 9.7mm											3.8mm × 8.0mm
E77       Rectangle       2.0mm × 7.0mm       14       EK8       D-Shape       3.8mm × 12.7mm       20       EV9       Knife Edge       2.7mm         E78       Rectangle       4.0mm × 15.0mm       15       EK9       D-Shape       2.0mm × 6.0mm       18       EW1       D-Shape       1.0mm         E79       Square       6.0mm × 6.0mm       16       UC301612*       Wedge       11.1mm × 33.3mm       17       EW2       Rectangle       4.0mm         E80       Rectangle       11.5mm × 10.5mm       17       EM2*       D-Shape       5.25mm × 17.2mm       21       EW3       D-Shape       5.8mm         E81       Rectangle       2.0mm × 4.0mm       14       EM3*       D-Shape       4.3mm × 12.7mm       21       EW3       D-Shape       5.8mm         E83       Rectangle       0.5mm × 4.0mm       13       EM4*       C-Fold       9.8mm × 10.7mm       21       EW5       Rectangle       0.7mm         E84*       Rectangle       9.5mm × 20.0mm       17       EM5       D-Shape       3.5mm × 9.7mm       20       EW7       Square       12.7mm         E85       C-Fold       11.8mm × 10.7mm       22       EM6       D-Shape       3.5mm × 9.5mm <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2.3mm × 17.1mm</td></t<>											2.3mm × 17.1mm
E78         Rectangle         4.0mm × 15.0mm         15         EK9         D-Shape         2.0mm × 6.0mm         18         EW1         D-Shape         1.0mm           E79         Square         6.0mm × 6.0mm         16         UC301612*         Wedge         11.1mm × 33.3mm         17         EW2         Rectangle         4.0mm           E80         Rectangle         11.5mm × 10.5mm         17         EM2*         D-Shape         5.25mm × 17.2mm         21         EW3         D-Shape         5.8mm           E81         Rectangle         2.0mm × 4.0mm         14         EM3*         D-Shape         4.3mm × 17.2mm         21         EW3         D-Shape         5.8mm           E83         Rectangle         0.5mm × 4.0mm         13         EM4*         C-Fold         9.8mm × 10.7mm         21         EW5         Rectangle         0.7mm           E84*         Rectangle         9.5mm × 20.0mm         17         EM5         D-Shape         4.3mm × 9.7mm         21         EW6         Rectangle         1.3mm           E85         C-Fold         11.8mm × 10.7mm         22         EM6         D-Shape         3.2mm × 17.5mm         15         EW8         Rectangle         3.0mm           E86*											2.7mm × 17.5mm
E79       Square       6.0mm × 6.0mm       16       UC301612*       Wedge       11.1mm × 33.3mm       17       EW2       Rectangle       4.0mm         E80       Rectangle       11.5mm × 10.5mm       17       EM2*       D-Shape       5.25mm × 17.2mm       21       EW3       D-Shape       5.8mm         E81       Rectangle       2.0mm × 4.0mm       14       EM3*       D-Shape       4.3mm × 12.7mm       21       EW3       D-Shape       5.8mm         E83       Rectangle       0.5mm × 4.0mm       14       EM3*       D-Shape       4.3mm × 10.7mm       21       EW4       Rectangle       1.5mm         E84       Rectangle       0.5mm × 4.0mm       13       EM4*       C-Fold       9.8mm × 10.7mm       21       EW5       Rectangle       1.3mm         E84*       Rectangle       9.5mm × 20.0mm       17       EM5       D-Shape       4.3mm × 9.7mm       21       EW6       Rectangle       1.3mm         E85       C-Fold       11.8mm × 10.7mm       22       EM6       D-Shape       3.5mm × 9.5mm       20       EW7       Square       12.7mm         E86*       Self-Mounting       18.8mm × 9.7mm       17       EM7       Rectangle       3.0mm × 5.0mm											1.0mm × 3.8mm
E80         Rectangle         11.5mm × 10.5mm         17         EM2*         D-Shape         5.25mm × 17.2mm         21         EW3         D-Shape         5.8mm           E81         Rectangle         2.0mm × 4.0mm         14         EM3*         D-Shape         4.3mm × 12.7mm         21         EW4         Rectangle         1.5mm           E83         Rectangle         0.5mm × 4.0mm         13         EM4*         C-Fold         9.8mm × 10.7mm         21         EW4         Rectangle         0.7mm           E84*         Rectangle         9.5mm × 20.0mm         17         EM5         D-Shape         4.3mm × 9.7mm         21         EW6         Rectangle         0.7mm           E84*         Rectangle         9.5mm × 20.0mm         17         EM5         D-Shape         4.3mm × 9.7mm         21         EW6         Rectangle         1.3mm           E84*         Rectangle         9.5mm × 20.0mm         17         EM5         D-Shape         3.5mm × 9.7mm         20         EW7         Square         12.7mm           E85         C-Fold         11.8mm × 10.7mm         22         EM6         D-Shape         3.2mm × 17.5mm         15         EW8         Rectangle         3.0mm           E87											4.0mm × 6.0mm
E81Rectangle $2.0 \text{mm} \times 4.0 \text{mm}$ 14EM3*D-Shape $4.3 \text{mm} \times 12.7 \text{mm}$ 21EW4Rectangle $1.5 \text{mm}$ E83Rectangle $0.5 \text{mm} \times 4.0 \text{mm}$ 13EM4*C-Fold $9.8 \text{mm} \times 10.7 \text{mm}$ 21EW5Rectangle $0.7 \text{mm}$ E84*Rectangle $9.5 \text{mm} \times 20.0 \text{mm}$ 17EM5D-Shape $4.3 \text{mm} \times 9.7 \text{mm}$ 21EW6Rectangle $1.3 \text{mm}$ E85C-Fold $11.8 \text{mm} \times 10.7 \text{mm}$ 22EM6D-Shape $3.5 \text{mm} \times 9.5 \text{mm}$ 20EW7Square $12.7 \text{mm}$ E86*Self-Mounting $18.8 \text{mm} \times 9.7 \text{mm}$ 17EM7Rectangle $3.2 \text{mm} \times 17.5 \text{mm}$ 15EW8Rectangle $3.0 \text{mm}$ E87Double D-Shape $2.8 \text{mm} \times 9.7 \text{mm}$ 19EM8*Rectangle $3.0 \text{mm} \times 5.0 \text{mm}$ 15EW9Rectangle $2.0 \text{mm}$ E88Rectangle $0.5 \text{mm} \times 7.0 \text{mm}$ 13EM9Rectangle $3.2 \text{mm} \times 20.2 \text{mm}$ 15EX3Rectangle $1.0 \text{mm}$ E90D-Shape $3.6 \text{mm} \times 6.4 \text{mm}$ 20EN1*Rectangle $4.0 \text{mm} \times 10.0 \text{mm}$ 15EX4D-Shape $12.7 \text{mm}$											5.8mm × 12.7mm
E83         Rectangle         0.5mm × 4.0mm         13         EM4*         C-Fold         9.8mm × 10.7mm         21         EW5         Rectangle         0.7mm           E84*         Rectangle         9.5mm × 20.0mm         17         EM5         D-Shape         4.3mm × 9.7mm         21         EW6         Rectangle         1.3mm           E85         C-Fold         11.8mm × 10.7mm         22         EM6         D-Shape         3.5mm × 9.7mm         20         EW7         Square         12.7mm           E86*         Self-Mounting         18.8mm × 9.7mm         17         EM7         Rectangle         3.2mm × 17.5mm         15         EW8         Rectangle         3.0mm           E87         Double D-Shape         2.8mm × 9.7mm         19         EM8*         Rectangle         3.0mm × 5.0mm         15         EW8         Rectangle         3.0mm           E87         Double D-Shape         2.8mm × 9.7mm         13         EM9         Rectangle         3.2mm × 20.2mm         15         EW3         Rectangle         3.0mm           E88         Rectangle         0.5mm × 6.4mm         20         EN1*         Rectangle         3.2mm × 10.0mm         15         EX3         Rectangle         1.0mm											1.5mm × 25.4mm
E84*         Rectangle         9.5mm × 20.0mm         17         EM5         D-Shape         4.3mm × 9.7mm         21         EW6         Rectangle         1.3mm           E85         C-Fold         11.8mm × 10.7mm         22         EM6         D-Shape         3.5mm × 9.5mm         20         EW7         Square         12.7mm           E86*         Self-Mounting         18.8mm × 9.7mm         17         EM7         Rectangle         3.2mm × 17.5mm         15         EW8         Rectangle         3.0mm           E87         Double D-Shape         2.8mm × 9.7mm         17         EM7         Rectangle         3.0mm × 5.0mm         15         EW8         Rectangle         3.0mm           E87         Double D-Shape         2.8mm × 9.7mm         19         EM8*         Rectangle         3.0mm × 5.0mm         15         EW8         Rectangle         3.0mm           E88         Rectangle         0.5mm × 6.4mm         20         EM9         Rectangle         3.2mm × 10.0mm         15         EX3         Rectangle         1.0mm           E90         D-Shape         3.6mm × 6.4mm         20         EN1*         Rectangle         4.0mm × 10.0mm         15         EX4         D-Shape         12.7mm											0.7mm × 7.0mm
E85         C-Fold         11.8mm × 10.7mm         22         EM6         D-Shape         3.5mm × 9.5mm         20         EW7         Square         12.7mm           E86*         Self-Mounting         18.8mm × 9.7mm         17         EM7         Rectangle         3.2mm × 17.5mm         15         EW8         Rectangle         3.0mm           E87         Double D-Shape         2.8mm × 9.7mm         19         EM8*         Rectangle         3.0mm × 5.0mm         15         EW9         Rectangle         2.0mm           E88         Rectangle         0.5mm × 7.0mm         13         EM9         Rectangle         3.2mm × 20.2mm         15         EX3         Rectangle         1.0mm           E90         D-Shape         3.6mm × 6.4mm         20         EN1*         Rectangle         4.0mm × 10.0mm         15         EX4         D-Shape         12.7mm											1.3mm × 2.3mm
E86*         Self-Mounting         18.8mm × 9.7mm         17         EM7         Rectangle         3.2mm × 17.5mm         15         EW8         Rectangle         3.0mm           E87         Double D-Shape         2.8mm × 9.7mm         19         EM8*         Rectangle         3.0mm × 5.0mm         15         EW9         Rectangle         2.0mm           E88         Rectangle         0.5mm × 7.0mm         13         EM9         Rectangle         3.2mm × 20.2mm         15         EX3         Rectangle         1.0mm           E90         D-Shape         3.6mm × 6.4mm         20         EN1*         Rectangle         4.0mm × 10.0mm         15         EX4         D-Shape         12.7mm										0	12.7mm × 12.7mm
E87         Double D-Shape         2.8mm × 9.7mm         19         EM8*         Rectangle         3.0mm × 5.0mm         15         EW9         Rectangle         2.0mm           E88         Rectangle         0.5mm × 7.0mm         13         EM9         Rectangle         3.2mm × 20.2mm         15         EX3         Rectangle         1.0mm           E90         D-Shape         3.6mm × 6.4mm         20         EN1*         Rectangle         4.0mm × 10.0mm         15         EX4         D-Shape         12.7mm											3.0mm × 9.0mm
E88         Rectangle         0.5mm × 7.0mm         13         EM9         Rectangle         3.2mm × 20.2mm         15         EX3         Rectangle         1.0mm           E90         D-Shape         3.6mm × 6.4mm         20         EN1*         Rectangle         4.0mm × 10.0mm         15         EX4         D-Shape         12.7mm											2.0mm × 6.0mm
E90         D-Shape         3.6mm × 6.4mm         20         EN1*         Rectangle         4.0mm × 10.0mm         15         EX4         D-Shape         12.7mi											1.0mm × 22.8mm
											12.7mm × 12.7mm
											4.1mm × 14.2mm
		5					-			•	

These profiles are also recognized under CSA C 💫 (Canada) and IEC 707, ISO 1210, and ISO 9773 Classifications.

\* Contact your sales or customer service representative for details, special minimum order quantity may apply.

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## **Reference Guide: Cross - Reference Guide to EMI Shielding Gaskets**

The listing below is a numerical listing of the fabric over foam profiles. For additional product and / or ordering

16         EX6         D-Shape         2.5mm × 10.0mm         19           16         EX7         D-Shape         7.6mm × 17.8mm         7.2mm         19           13         EY1         D-Shape         1.5mm × 12.7mm         19           14         EY2         D-Shape         1.5mm × 10.0mm         18           15         EY3         D-Shape         1.5mm × 10.0mm         18           16         EY6         D-Shape         1.5mm × 10.0mm         18           16         EY6         D-Shape         2.7mm × 17.0mm         19           17         EY8         D-Shape         2.7mm × 17.0mm         19           16         E14         D-Shape         3.3mm × 17.0mm         20           16         E18         Rectangle         0.8mm × 6.0mm         13           22         E10         D-Shape         4.1mm × 18.3mm         20           17         E1E         D-Shape         4.1mm × 18.3mm         20           18         PetCa         L-Shape         4.3mm × 15.0mm         13           22         E10         D-Shape         4.0mm × 18.3mm         20           17         E1K         Rectangle         1.0mm × 22	Page#	Profile	Complex 9	Shape	Dimensions	Page#
i         EX         Wedge         7.6mm × 17.8mm         17           13         EY1         D-Shape         2.9mm × 2.7mm         19           14         EY2         D-Shape         1.5mm × 6.0mm         18           15         EY3         D-Shape         1.5mm × 6.0mm         18           16         EY6         D-Shape         1.5mm × 10.0mm         18           16         EY7         D-Shape         2.0mm × 17.0mm         19           17         EY8         D-Shape         3.3mm × 17.0mm         20           16         E14         D-Shape         3.3mm × 17.0mm         20           16         E18         Rectangle         0.8mm × 6.0mm         13           22         E10         D-Shape         4.0mm × 10.0mm         20           17         E1F         D-Shape         4.0mm × 10.0mm         18           20         E1H         Balt-Shape         1.8mm × 4.6mm         18           21         E1G         D-Shape         4.0mm × 17.0mm         21           21         Suura         1.8mm × 4.6mm         18         2.9mm         13           22         E1H         Balt-Shape         4.0mm × 17.0mm	16	EX6	D-Shape		2.5mm × 10.0mm	19
13         EY1         D-Shape         2.5mm × 2.7mm         19           14         EY2         D-Shape         1.5mm × 2.7mm         18           15         EY3         D-Shape         1.5mm × 6.0mm         18           16         EY6         D-Shape         1.5mm × 10.0mm         18           16         EY6         D-Shape         2.0mm × 17.0mm         19           17         EY8         D-Shape         2.0mm × 17.0mm         20           16         E14         D-Shape         3.8mm × 17.0mm         20           16         E18         Rectangle         0.8mm × 10.0mm         20           16         E14         D-Shape         4.0mm × 10.0mm         20           17         E14         D-Shape         4.0mm × 10.0mm         20           19         E16         D-Shape         4.0mm × 4.6mm         18           20         E14         Bel-Shape         1.5mm × 4.6mm         18           21         E17         D-Shape         4.0mm × 4.6mm         14           20         E14         Bel-Shape         3.0mm × 10.0mm         14           21         E17         D-Shape         4.0mm × 10.0mm         15						
14         EV3         D-Shape         1.5mm × 6.0mm         18           15         EV3         D-Shape         1.5mm × 6.0mm         18           16         EV6         D-Shape         1.5mm × 10.0mm         18           16         EV6         D-Shape         1.5mm × 17.0mm         18           16         EV7         D-Shape         2.0mm × 17.0mm         19           17         EV8         D-Shape         3.3mm × 17.0mm         20           16         E1A         D-Shape         3.3mm × 17.0mm         20           16         E1B         Rectangle         0.8mm × 6.0mm         13           22         E1C         L-Shape         3.3mm × 5.3mm         18           22         E1D         D-Shape         4.0mm × 10.0mm         20           17         E1F         D-Shape         6.0mm × 10.0mm         18           20         E1H         Ball-Shape         1.8mm × 4.6mm         18           21         E1K         Rectangle         1.0mm × 2.9mm         13           17         E1K         Rectangle         3.0mm × 10.0mm         18           18         E1V         Shape         4.5mm × 10.0mm         18 <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td>			0			
15         EV4         D-Shape         1.5mm x 6.0mm         18           16         EV6         D-Shape         1.5mm x 10.0mm         18           16         EV6         D-Shape         2.0mm x 17.0mm         18           21         EV7         D-Shape         2.0mm x 17.0mm         19           15         EV9         D-Shape         3.0mm x 17.0mm         20           16         E1A         D-Shape         3.0mm x 17.0mm         20           16         E1B         Rectangle         0.8mm x 17.0mm         20           16         E1B         Rectangle         3.0mm x 5.0mm         18           22         E1C         L-Shape         3.0mm x 4.0mm         20           17         E1E         D-Shape         4.0mm x 10.0mm         21           20         E1J         Square         3.0mm x 17.0mm         21           21         E1G         D-Shape         6.0mm x 17.0mm         21           21         E1G         D-Shape         1.0mm x 2.0mm         13           20         E1J         Square         3.0mm x 10.0mm         13           21         E1K         Rectangle         1.0mm x 10.0mm         14						
16         EV6         D-Shape         1.5mm × 10.0mm         18           21         EV7         D-Shape         2.0mm × 17.0mm         19           17         EV8         D-Shape         2.7mm × 17.0mm         19           16         E1A         D-Shape         3.8mm × 17.0mm         20           16         E1B         Rectangle         0.8mm × 10.0mm         10           22         E1C         L-Shape         3.8mm × 10.0mm         20           17         E1E         D-Shape         4.0mm × 10.0mm         20           18         Retangle         0.8mm × 10.4mm         20         21           21         E1G         D-Shape         4.0mm × 10.0mm         21           22         E1G         D-Shape         6.0mm × 17.0mm         21           20         E1H         Bell-Shape         1.8mm × 4.6mm         18           20         E1H         Retangle         1.8mm × 4.6mm         18           21         E1K         Reetangle         3.0mm × 10.0mm         18           21         E1A         Sell         3.0mm × 10.0mm         18           21         E1Q         Reetangle         3.0mm × 10.0mm         18					1.5mm × 6.0mm	
16         EV6         D-Shape         1.5mm × 17.0mm         18           17         EV8         D-Shape         2.0mm × 17.0mm         19           15         EV9         D-Shape         3.3mm × 17.0mm         20           16         E1A         D-Shape         3.3mm × 17.0mm         20           16         E1B         Rectangle         0.8mm × 6.0mm         13           22         E1C         L-Shape         3.3mm × 5.3mm         18           22         E1D         D-Shape         4.0mm × 10.0mm         20           17         E1E         D-Shape         1.8mm × 4.6mm         18           20         E1J         Square         3.5mm × 3.5mm         15           17         E1K         Retangle         1.5mm × 10.0mm         21           20         E1J         Square         3.0mm × 10.0mm         17           21K         Retangle         3.0mm × 10.0mm         18         15           17         E1M         Retangle         3.0mm × 10.0mm         18           21         E1P         Knife Edge         3.0mm × 10.0mm         18           21         E1P         Rotangle         3.0mm × 10.0mm         18 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
21         EV7         D-Shape         2.0mm × 17.0mm         19           17         EV8         D-Shape         3.3mm × 17.0mm         20           16         E1A         D-Shape         3.3mm × 17.0mm         20           16         E1A         D-Shape         3.3mm × 17.0mm         20           16         E1B         Rectangle         0.8mm × 6.0mm         13           22         E1C         L-Shape         4.0mm × 10.0mm         20           17         E1E         D-Shape         4.0mm × 1.0mm         20           19         E1F         D-Shape         1.8mm × 4.6mm         18           20         E1H         Bell-Shape         1.8mm × 4.6mm         18           20         E1H         Bell-Shape         1.5mm × 19.1mm         14           21         E1K         Rectangle         1.5mm × 19.1mm         14           21         E1Q         Rectangle         3.0mm × 10.0mm         15           13         E1N         D-Shape         4.5mm × 10.0mm         18           14         E1R         Bell-Shape         3.0mm × 15.0mm         18           15         E1O         Rectangle         3.0mm × 15.0mm		-				
17         EY8         D-Shape         2.7mm × 17.0mm         19           15         EY9         D-Shape         3.8mm × 17.0mm         20           16         E1A         D-Shape         3.8mm × 17.0mm         20           16         E1B         Rectangle         0.8mm × 6.0mm         13           22         E1C         L-Shape         3.3mm × 5.3mm         18           22         E1D         D-Shape         4.0mm × 11.0mm         20           19         E1F         D-Shape         1.8mm × 4.6mm         18           20         E1J         Square         3.5mm × 16.5mm         18           21         E1M         Bell-Shape         4.5mm × 10.1mm         14           13         E1N         D-Shape         4.5mm × 10.1mm         14           14         E1P         Knife Edge         3.0mm × 10.1mm         18           15         E1U         Bell-Shape         3.0mm × 10.1mm         18           16         E1T         Bell-Shape         3.0mm × 10.1mm         18           17         E1K         Rectangle         3.0mm × 10.1mm         18           18         E1U         Bell-Shape         3.0mm × 10.0mm						
16         E1A         D-Shape         3.8mm × 17.0mm         20           16         E1B         Rectangle         0.8mm × 6.0mm         13           22         E1D         D-Shape         3.3mm × 5.3mm         18           22         E1D         D-Shape         4.0mm × 11.0mm         20           17         E1E         D-Shape         4.1mm × 18.3mm         20           19         E1F         D-Shape         6.0mm × 11.0mm         21           20         E1H         Bell-Shape         1.8mm × 4.6mm         18           20         E1J         Square         3.5mm × 15.0mm         13           21         E1M         Rectangle         1.5mm × 19.1mm         14           21         E1P         Knife Edge         3.0mm × 10.0mm         15           21         E1Q         Rectangle         3.0mm × 15.0mm         18           121         E1R         Bell-Shape         3.0mm × 15.0mm         18           13         E1W         D-Shape         1.2mm × 3.6mm         18           14         E1R         Bell-Shape         3.0mm × 15.0mm         18           15         E2C         Rectangle         3.0mm × 10.0mm						
16         E1B         Rectangle         0.8mm × 6.0mm         13           22         E1C         L-Shape         3.3mm × 5.3mm         18           22         E1C         L-Shape         4.0mm × 11.0mm         20           17         E1E         D-Shape         4.1mm × 18.3mm         20           19         E1F         D-Shape         6.0mm × 17.0mm         21           20         E1J         Square         3.5mm × 4.6mm         18           20         E1H         Bell-Shape         1.0mm × 10.7mm         11           20         E1M         Rectangle         1.0mm × 22.9mm         13           17         E1K         Rectangle         3.0mm × 10.1mm         14           13         E1N         D-Shape         4.5mm × 10.0mm         15           14         E1R         Bell-Shape         3.0mm × 10.1mm         18           16         E1T         Bell-Shape         3.0mm × 10.1mm         18           17         D-Shape         1.2mm × 10.0mm         18           18         E1U         DeShape         1.2mm × 10.0mm         18           19         E2A         D-Shape         2.0mm × 10.0mm         18 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
22         E1C         L-Shape $3.3mm \times 5.3mm$ 18           22         E1D         D-Shape $4.0mm \times 11.0mm$ 20           17         E1E         D-Shape $4.0mm \times 11.0mm$ 20           19         E1F         D-Shape $1.8mm \times 4.6mm$ 18           20         E1H         Bell-Shape $1.8mm \times 4.6mm$ 18           20         E1H         Bell-Shape $1.5mm \times 4.6mm$ 18           20         E1H         Bell-Shape $4.5mm \times 10.1mm$ 13           21         E1M         Rectangle $1.5mm \times 10.1mm$ 14           13         E1N         D-Shape $3.0mm \times 10.1mm$ 15           21         E1Q         Rectangle $3.0mm \times 10.1mm$ 18           14         E1R         Bell-Shape $3.0mm \times 10.1mm$ 18           15         E1U         D-Shape $1.2mm \times 10.0mm$ 18           16         E1T         Bell-Shape $2.0mm \times 4.0mm$ 18           17         D-Shape $1.2mm \times 3.0mm$ 18           18         E1U         D-Shape $2.0mm \times 10.0mm$ </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
22         E1D         D-Shape         4.0mm × 11.0mm         20           17         E1F         D-Shape         4.1mm × 18.3mm         20           19         E1G         D-Shape         6.0mm × 17.0mm         21           20         E1H         Bell-Shape         1.8mm × 4.6mm         18           20         E1H         Bell-Shape         1.8mm × 4.6mm         18           20         E1H         Bell-Shape         1.6mm × 12.9mm         13           17         E1K         Rectangle         1.5mm × 13.1mm         14           13         E1N         D-Shape         4.6mm × 10.0mm         15           14         E1R         Bell-Shape         3.0mm × 10.0mm         18           16         E1T         Bell-Shape         3.0mm × 15.0mm         18           17         E1W         D-Shape         1.3mm × 3.6mm         18           18         E1U         Bell-Shape         3.0mm × 15.0mm         18           19         E2A         D-Shape         4.0mm × 19.05mm         13           13         E1Y         D-Shape         3.0mm × 5.0mm         13           15         E2D         Rectangle         3.0mm × 6.0mm			0			
19         E1F         D-Shape $1.8mm \times 4.6mm$ 18           19         E1G         D-Shape $6.0mm \times 17.0mm$ 21           20         E1J         Square $3.5mm \times 4.6mm$ 18           20         E1J         Square $3.5mm \times 3.5mm$ 15           17         E1K         Rectangle $1.5mm \times 12.9mm$ 13           17         E1M         Rectangle $1.5mm \times 12.9mm$ 13           13         E1N         D-Shape $4.5mm \times 10.0mm$ 14           14         E1Q         Rectangle $3.0mm \times 10.0mm$ 18           16         E1T         Bell-Shape $3.0mm \times 15.0mm$ 18           17         E2N         D-Shape $1.2mm \times 10.0mm$ 18           18         E1U         DeShape $3.0mm \times 15.0mm$ 18           19         E2A         D-Shape $2.0mm \times 4.0mm$ 18           19         E2B         Rectangle $3.0mm \times 15.0mm$ 15           10         E2C         Rectangle $3.0mm \times 10.0mm$ 13           15         E2D         Rectangle						
19         E1G         D-Shape $6.0mm \times 17.0mm$ 21           20         E1H         Bell-Shape $1.8mm \times 4.6mm$ 18           20         E1J         Square $3.5mm \times 3.5mm$ 15           17         E1K         Rectangle $1.0mm \times 22.9mm$ 13           17         E1M         Rectangle $1.5mm \times 19.1mm$ 14           13         E1N         D-Shape $4.5mm \times 10.0mm$ 15           14         E1P         Knife Edge $3.0mm \times 16.5mm$ 15           14         E1R         Bell-Shape $3.0mm \times 10.0mm$ 18           19         E1V         D-Shape $1.2mm \times 10.0mm$ 18           19         E1V         D-Shape $1.3mm \times 3.6mm$ 18           19         E2A         D-Shape $2.0mm \times 4.0mm$ 18           13         E1W         D-Shape $2.0mm \times 4.0mm$ 13           15         E2C         Rectangle $3.5mm \times 5.0mm$ 15           13         E1Y         D-Shape $2.0mm \times 4.0mm$ 14           16         E2D         Rectangle						
20         E1H         Bell-Shape         1.8mm × 4.6mm         18           20         E1J         Square         3.5mm × 3.5mm         15           17         E1M         Rectangle         1.5mm × 13.1mm         14           13         E1N         D-Shape         4.5mm × 10.0mm         21           21         E1P         Knife Edge         3.0mm × 10.0mm         15           14         E1R         Bell-Shape         3.0mm × 10.0mm         18           16         E1T         Bell-Shape         3.0mm × 15.0mm         18           17         D-Shape         1.3mm × 3.6mm         18           18         E1U         Del-Shape         3.0mm × 15.0mm         18           19         E2A         D-Shape         1.3mm × 3.6mm         18           13         E1Y         D-Shape         2.0mm × 4.0mm         18           14         E2B         Rectangle         1.0mm × 19.05mm         13           15         E2C         Rectangle         2.3mm × 13.06mm         14           16         E2F         Rectangle         3.0mm × 10.0mm         14           16         E2C         Rectangle         3.0mm × 12.1mm         14						
20         E1J         Square $3.5mm \times 3.5mm \times 15$ 17         E1K         Rectangle $1.0mm \times 22.9mm$ 13           17         E1M         Rectangle $1.5mm \times 19.1mm$ 14           13         E1N         D-Shape $4.5mm \times 10.0mm$ 17           21         E1Q         Rectangle $3.0mm \times 10.0mm$ 16           14         E1R         Bell-Shape $3.0mm \times 10.0mm$ 18           16         E1T         Bell-Shape $3.0mm \times 15.0mm$ 18           19         E1V         D-Shape $2.0mm \times 4.0mm$ 18           19         E1V         D-Shape $2.0mm \times 4.0mm$ 18           19         E2A         D-Shape $2.0mm \times 4.0mm$ 18           19         E2B         Rectangle $1.0mm \times 19.05mm$ 13           15         E2D         Rectangle $2.3mm \times 19.05mm$ 13           16         E2F         Rectangle $3.0mm \times 18.0mm$ 13           16         E2D         Rectangle $3.0mm \times 19.05mm$ 15           16         E2P         Rectangle $3.0m$		-				
17       E1M       Rectangle $1.5mm \times 19.1mm$ 14         13       E1N       D-Shape $4.5mm \times 10.0mm$ 21         21       E1Q       Rectangle $3.0mm \times 10.0mm$ 17         21       E1Q       Rectangle $3.0mm \times 10.0mm$ 15         14       E1R       Bell-Shape $4.0mm \times 15.0mm$ 18         16       E1T       Bell-Shape $4.0mm \times 15.0mm$ 18         17       D-Shape $1.2mm \times 10.0mm$ 18         18       E1V       D-Shape $2.0mm \times 4.0mm$ 18         19       E2A       D-Shape $2.0mm \times 19.05mm$ 13         15       E2C       Rectangle $2.0mm \times 19.05mm$ 13         16       E2F       Rectangle $2.0mm \times 19.05mm$ 15         16       E2H       Rectangle $3.0mm \times 10.0mm$ 16         17       E2K       Rectangle $2.0mm \times 1.84mm$ <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
13         EIN         D-Shape $4.5mm \times 10.0mm$ 21           21         EIP         Knife Edge $3.0mm \times 16.5mm$ 17           21         EIP         Retangle $3.0mm \times 16.5mm$ 17           14         EIR         Bell-Shape $3.0mm \times 10.0mm$ 18           16         EIT         Bell-Shape $3.0mm \times 15.0mm$ 18           18         EIU         Bell-Shape $3.0mm \times 15.0mm$ 18           13         EIV         D-Shape $1.2mm \times 3.6mm$ 18           13         EIV         D-Shape $2.0mm \times 4.0mm$ 18           14         EZA         D-Shape $2.0mm \times 4.0mm$ 18           15         EZC         Rectangle $3.5mm \times 5.0mm$ 18           16         EZE         Rectangle $2.3mm \times 19.05mm$ 14           16         EZE         Rectangle $3.4mm \times 19.05mm$ 15           16         EZH         Rectangle $3.4mm \times 19.05mm$ 16           17         Rectangle $3.0mm \times 10.0mm$ 16         18           18         EZH         Rectangle			J			
21         E1P         Knife Édge $3.0mm \times 16.5mm$ 17           21         E1Q         Rectangle $3.0mm \times 10.0mm$ 15           14         E1R         Bell-Shape $3.0mm \times 10.0mm$ 18           16         E1T         Bell-Shape $4.0mm \times 15.0mm$ 18           19         E1V         D-Shape $1.2mm \times 10.0mm$ 18           13         E1W         D-Shape $2.0mm \times 4.0mm$ 18           19         E2A         D-Shape $2.0mm \times 4.0mm$ 18           19         E2A         D-Shape $2.0mm \times 4.0mm$ 18           19         E2A         D-Shape $2.0mm \times 4.0mm$ 18           10         E2A         Rectangle $1.0mm \times 19.05mm$ 13           15         E2D         Rectangle $2.3mm \times 19.05mm$ 14           16         E2F         Rectangle $3.0mm \times 15.3mm$ 16           17         Rectangle $3.0mm \times 10.05mm$ 16         18           18         E2J         Rectangle $2.0mm \times 8.0mm$ 16           13         E2K         Rectangle						
21         E10         Rectangle $3.0mm \times 10.0mm$ 15           14         E1R         Bell-Shape $3.0mm \times 10.1mm$ 18           16         E1T         Bell-Shape $3.0mm \times 15.0mm$ 18           18         E1U         Bell-Shape $3.0mm \times 15.0mm$ 18           19         E1V         D-Shape $1.2mm \times 10.0mm$ 18           13         E1W         D-Shape $1.3mm \times 3.6mm$ 18           19         E2A         D-Shape $4.3mm \times 6.4mm$ 21           19         E2B         Rectangle $3.0mm \times 21.94mm$ 13           15         E2C         Rectangle $2.3mm \times 21.84mm$ 14           16         E2F         Rectangle $3.4mm \times 21.84mm$ 15           16         E2G         Rectangle $3.4mm \times 21.84mm$ 16           17         Retangle $3.0mm \times 8.0mm$ 14           18         E2J         Rectangle $3.0mm \times 8.0mm$ 14           18         E2J         Rectangle $3.0mm \times 8.0mm$ 14           13         E2K         Rectangle $3.0mm$						
16         E1T         Bell-Shape $3.0mm \times 15.0mm$ 18           18         E1U         Bell-Shape $3.0mm \times 15.0mm$ 18           13         E1W         D-Shape $1.2mm \times 10.0mm$ 18           13         E1W         D-Shape $1.3mm \times 3.6mm$ 18           13         E1Y         D-Shape $2.0mm \times 4.0mm$ 18           19         E2A         D-Shape $4.3mm \times 6.4mm$ 21           15         E2C         Rectangle $3.5mm \times 5.0mm$ 15           15         E2D         Rectangle $2.3mm \times 19.05mm$ 14           16         E2F         Rectangle $2.3mm \times 21.84mm$ 14           16         E2G         Rectangle $3.4mm \times 21.84mm$ 15           17         E2K         Rectangle $5.0mm \times 21.84mm$ 16           18         E2J         Rectangle $5.0mm \times 21.84mm$ 16           18         E2K         Rectangle $2.0mm \times 21.84mm$ 16           18         E2M         D-Shape $3.0mm \times 21.84mm$ 16           13         E2K         Rectangle <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td>			0			
18         E1U         Bell-Shape $3.0mm \times 15.0mm$ 18           19         E1V         D-Shape $1.2mm \times 10.0mm$ 18           13         E1W         D-Shape $1.3mm \times 3.6mm$ 18           13         E1Y         D-Shape $2.0mm \times 4.0mm$ 18           19         E2A         D-Shape $2.0mm \times 4.0mm$ 18           19         E2B         Rectangle $3.5mm \times 5.0mm$ 13           15         E2C         Rectangle $1.0mm \times 19.05mm$ 14           16         E2F         Rectangle $2.3mm \times 21.84mm$ 14           16         E2F         Rectangle $3.0mm \times 21.84mm$ 15           13         E2K         Rectangle $3.0mm \times 21.84mm$ 16           13         E2K         Rectangle $2.0mm \times 21.84mm$ 16           13         E2K         Rectangle $2.0mm \times 8.0mm$ 14           14         E2P         D-Shape $3.0mm \times 10.0mm$ 19           13         E2K         Rectangle $2.0mm \times 8.0mm$ 14           14         E2P         D-Shape					3.0mm × 10.1mm	
19         EIV         D-Shape $1.2mm \times 10.0mm$ 18           13         E1W         D-Shape $1.3mm \times 3.6mm$ 18           13         E1Y         D-Shape $2.0mm \times 4.0mm$ 18           19         E2A         D-Shape $4.3mm \times 6.4mm$ 21           19         E2B         Rectangle $3.5mm \times 5.0mm$ 15           15         E2C         Rectangle $2.3mm \times 19.05mm$ 14           16         E2F         Rectangle $2.3mm \times 19.05mm$ 15           16         E2F         Rectangle $3.4mm \times 19.05mm$ 15           17         Rectangle $3.4mm \times 19.05mm$ 16         16           18         E2J         Rectangle $3.0mm \times 21.84mm$ 16           13         E2K         Rectangle $2.0mm \times 13.0mm$ 14           13         E2K         Rectangle $2.0mm \times 10.0mm$ 19           13         E2K         Rectangle $2.0mm \times 8.0mm$ 14           14         E2P         D-Shape $3.0mm \times 10.0mm$ 19           13         E2R         D-Shape						
13         E1W         D-Shape         1.3mm × 3.6mm         18           13         E1Y         D-Shape         2.0mm × 4.0mm         18           19         E2A         D-Shape         4.3mm × 6.4mm         21           19         E2B         Rectangle         1.0mm × 19.05mm         13           15         E2C         Rectangle         1.0mm × 19.05mm         14           16         E2E         Rectangle         2.3mm × 19.05mm         14           16         E2F         Rectangle         2.3mm × 19.05mm         16           17         Rectangle         3.4mm × 19.05mm         16           18         E2J         Rectangle         5.0mm × 19.05mm         16           18         E2J         Rectangle         5.0mm × 19.05mm         16           18         E2J         Rectangle         2.0mm × 13.84mm         16           13         E2K         Rectangle         2.0mm × 13.84mm         16           14         E2J         Rectangle         2.0mm × 13.84mm         16           15         E2K         Rectangle         2.0mm × 10.0mm         19           16         E2L         Rectangle         3.0mm × 10.0mm						
13         E1Y         D-Shape         2.0mm × 4.0mm         18           19         E2A         D-Shape         4.3mm × 6.4mm         21           19         E2B         Rectangle         3.5mm × 6.0mm         13           15         E2C         Rectangle         2.3mm × 19.05mm         13           16         E2F         Rectangle         2.3mm × 11.84mm         14           16         E2F         Rectangle         2.3mm × 11.84mm         14           16         E2G         Rectangle         3.4mm × 11.84mm         15           17         Rectangle         3.4mm × 11.84mm         15           18         E2J         Rectangle         3.4mm × 11.84mm         16           18         E2J         Rectangle         3.4mm × 11.84mm         16           13         E2K         Rectangle         2.0mm × 11.84mm         16           13         E2K         Rectangle         2.0mm × 11.84mm         16           14         E2D         D-Shape         3.0mm × 10.0mm         19           15         E2M         D-Shape         3.0mm × 10.0mm         19           16         E2F         D-Shape         3.0mm × 10.0mm         1						
19         E2B         Rectangle $3.5mm \times 5.0mm$ 15           15         E2C         Rectangle $1.0mm \times 19.05mm$ 13           16         E2E         Rectangle $2.3mm \times 19.05mm$ 14           16         E2E         Rectangle $2.3mm \times 21.84mm$ 13           16         E2F         Rectangle $3.4mm \times 19.05mm$ 15           16         E2H         Rectangle $3.4mm \times 19.05mm$ 16           18         E2J         Rectangle $3.4mm \times 19.05mm$ 16           13         E2K         Rectangle $3.0mm \times 19.05mm$ 16           13         E2L         Rectangle $2.0mm \times 15.3mm$ 14           13         E2L         Rectangle $2.0mm \times 8.0mm$ 19           14         E2P         D-Shape $3.0mm \times 8.0mm$ 19           15         E2R         D-Shape $3.0mm \times 8.0mm$ 19           14         E2P         D-Shape $3.0mm \times 10.0mm$ 19           15         E2W         D-Shape $3.0mm \times 17.0mm$ 19           14         E2U         D-Shape						
15         E2C         Rectangle $1.0mm \times 19.05mm$ 13           15         E2D         Rectangle $2.3mm \times 19.05mm$ 14           16         E2E         Rectangle $1.0mm \times 21.84mm$ 13           16         E2F         Rectangle $3.4mm \times 21.84mm$ 14           16         E2G         Rectangle $3.4mm \times 21.84mm$ 16           16         E2H         Rectangle $5.0mm \times 19.05mm$ 16           18         E2J         Rectangle $5.0mm \times 19.05mm$ 16           13         E2K         Rectangle $2.0mm \times 15.3mm$ 14           13         E2M         D-Shape $3.0mm \times 8.0mm$ 19           14         E2P         D-Shape $3.0mm \times 10.0mm$ 19           15         E2R         D-Shape $3.0mm \times 8.0mm$ 19           14         E2V         D-Shape $3.0mm \times 12.7mm$ 19           15         E2W         D-Shape $3.0mm \times 12.7mm$ 19           14         E2V         D-Shape $3.5mm \times 6.3mm \times 12.7mm$ 19           15         E2W         D-Shap						
15         E2D         Rectangle $2.3mm \times 19.05mm$ 14           16         E2F         Rectangle $1.0mm \times 21.84mm$ 13           16         E2F         Rectangle $2.3mm \times 21.84mm$ 14           16         E2G         Rectangle $3.4mm \times 19.05mm$ 15           16         E2H         Rectangle $3.4mm \times 21.84mm$ 16           13         E2K         Rectangle $3.0mm \times 21.84mm$ 16           13         E2L         Rectangle $2.0mm \times 15.3mm$ 14           13         E2L         Rectangle $2.0mm \times 15.3mm$ 14           13         E2N         Rectangle $2.0mm \times 8.0mm$ 19           14         E2P         D-Shape $3.0mm \times 8.0mm$ 19           13         E2R         D-Shape $3.0mm \times 10.0mm$ 20           19         E2S         D-Shape $3.0mm \times 12.7mm$ 19           14         E2U         D-Shape $3.0mm \times 12.7mm$ 19           14         E2V         D-Shape $3.5mm \times 10.0mm$ 20           19         E3C         D-Shape						
16         E2E         Rectangle $1.0mm \times 21.84mm$ 13           16         E2F         Rectangle $2.3mm \times 21.84mm$ 14           16         E2G         Rectangle $3.4mm \times 19.05mm$ 15           16         E2H         Rectangle $3.4mm \times 19.05mm$ 16           18         E2J         Rectangle $3.4mm \times 21.84mm$ 16           13         E2K         Rectangle $3.4mm \times 21.84mm$ 16           13         E2K         Rectangle $2.0mm \times 15.3mm$ 14           13         E2R         D-Shape $3.0mm \times 8.0mm$ 19           14         E2P         D-Shape $3.0mm \times 10.0mm$ 20           15         E2R         D-Shape $3.0mm \times 10.0mm$ 20           16         E2S         D-Shape $3.0mm \times 10.0mm$ 20           17         E2S         D-Shape $3.0mm \times 10.0mm$ 19           18         E2V         D-Shape $3.0mm \times 12.7mm$ 19           14         E2U         D-Shape $3.5mm \times 17.0mm$ 20           15         E2W         D-Shape			0			
16         E2G         Rectangle $3.4mm \times 19.05mm$ 15           16         E2H         Rectangle $5.0mm \times 19.05mm$ 16           18         E2J         Rectangle $3.4mm \times 21.84mm$ 15           13         E2K         Rectangle $2.0mm \times 21.84mm$ 16           13         E2K         Rectangle $2.0mm \times 21.84mm$ 16           13         E2K         Rectangle $2.0mm \times 8.0mm$ 19           13         E2N         Rectangle $2.0mm \times 8.0mm$ 19           14         E2P         D-Shape $3.0mm \times 8.0mm$ 19           13         E2T         D-Shape $3.0mm \times 6.0mm$ 19           14         E2U         D-Shape $3.0mm \times 8.0mm$ 19           14         E2V         D-Shape $3.0mm \times 12.7mm$ 19           15         E2W         D-Shape $3.5mm \times 8.0mm$ 20           16         E2X         D-Shape $3.5mm \times 8.0mm$ 20           17         E3A         Square $6.35mm \times 12.7mm$ 20           18         E2X         D-Shape <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<>						
16         E2H         Rectangle $5.0mm \times 19.05mm$ 16           18         E2J         Rectangle $3.4mm \times 21.84mm$ 15           13         E2K         Rectangle $5.0mm \times 21.84mm$ 16           13         E2K         Rectangle $2.0mm \times 15.3mm$ 14           13         E2M         D-Shape $3.0mm \times 8.0mm$ 14           13         E2M         D-Shape $3.0mm \times 8.0mm$ 14           14         E2P         D-Shape $3.0mm \times 8.0mm$ 19           13         E2R         D-Shape $3.0mm \times 10.0mm$ 19           14         E2V         D-Shape $3.0mm \times 6.0mm$ 19           14         E2V         D-Shape $3.0mm \times 17.0mm$ 19           15         E2W         D-Shape $3.5mm \times 8.0mm$ 20           18         E2Y         D-Shape $3.5mm \times 8.0mm$ 20           19         E3A         Square $6.35mm \times 17.0mm$ 20           21         E3A         Square $5.25mm \times 17.0mm$ 20           21         E3C         D-Shape $3.5m$						
18         E2J         Rectangle $3.4mm \times 21.84mm$ 15           13         E2K         Rectangle $5.0mm \times 21.84mm$ 16           13         E2L         Rectangle $2.0mm \times 15.3mm$ 14           13         E2M         D-Shape $3.0mm \times 8.0mm$ 14           14         E2P         D-Shape $3.0mm \times 8.0mm$ 14           14         E2P         D-Shape $3.0mm \times 8.0mm$ 19           13         E2R         D-Shape $3.0mm \times 6.0mm$ 19           14         E2V         D-Shape $3.0mm \times 6.0mm$ 19           15         E2W         D-Shape $3.0mm \times 10.0mm$ 19           14         E2V         D-Shape $3.0mm \times 10.0mm$ 19           15         E2W         D-Shape $3.0mm \times 17.0mm$ 19           16         E2V         D-Shape $3.5mm \times 6.0mm$ 20           17         E3A         Square $6.35mm \times 6.35mm$ 16           20         E3B         D-Shape $3.5mm \times 7.0mm$ 20           19         E3C         D-Shape $3.5mm \times $		-				
13       E2K       Rectangle $5.0mm \times 21.84mm$ 16         13       E2L       Rectangle $2.0mm \times 15.3mm$ 14         13       E2M       D-Shape $3.0mm \times 8.0mm$ 19         18       E2N       Rectangle $2.0mm \times 8.0mm$ 14         14       E2P       D-Shape $3.0mm \times 10.0mm$ 19         13       E2R       D-Shape $3.0mm \times 10.0mm$ 20         19       E2S       D-Shape $3.0mm \times 10.0mm$ 19         13       E2T       D-Shape $3.0mm \times 8.0mm$ 19         14       E2U       D-Shape $3.0mm \times 10.0mm \times 10.0mm$ 19         14       E2U       D-Shape $3.0mm \times 10.0mm \times 10.0mm$ 19         14       E2V       D-Shape $3.0mm \times 10.0mm \times 10.0mm$ 19         15       E2W       D-Shape $3.5mm \times 10.0mm \times 20$ 18         18       E2X       D-Shape $3.5mm \times 12.7mm \times 20$ 21         19       E3A       Square $6.35mm \times 12.7mm \times 20$ 21         21       E3A       Square $3.5mm \times 7.0mm \times 15$ 20         22       E3B			0			
13         E2M         D-Shape         3.0mm × 8.0mm         19           18         E2N         Rectangle         2.0mm × 8.0mm         14           14         E2P         D-Shape         3.0mm × 10.0mm         19           13         E2R         D-Shape         3.0mm × 10.0mm         19           13         E2R         D-Shape         3.0mm × 6.0mm         19           13         E2T         D-Shape         3.0mm × 6.0mm         19           14         E2U         D-Shape         3.0mm × 12.7mm         19           14         E2V         D-Shape         3.0mm × 12.7mm         19           15         E2W         D-Shape         3.5mm × 10.0mm         20           18         E2X         D-Shape         3.5mm × 10.0mm         20           19         E2Y         D-Shape         3.5mm × 17.0mm         20           21         E3A         Square         6.35mm × 17.0mm         20           21         E3C         D-Shape         3.5mm × 17.0mm         20           21         E3C         D-Shape         3.5mm × 17.0mm         10           20         E3F         Bell-Shape         3.5mm × 17.15mm         15 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
18         E2N         Rectangle $2.0mm \times 8.0mm$ 14           14         E2P         D-Shape $3.0mm \times 10.0mm$ 19           13         E2R         D-Shape $3.0mm \times 10.0mm$ 20           19         E2S         D-Shape $3.0mm \times 10.0mm$ 20           13         E2T         D-Shape $3.0mm \times 8.0mm$ 19           14         E2U         D-Shape $3.0mm \times 8.0mm$ 19           14         E2V         D-Shape $3.0mm \times 17.0mm$ 19           15         E2W         D-Shape $3.5mm \times 6.0mm$ 20           18         E2X         D-Shape $3.5mm \times 17.0mm$ 20           19         E2Y         D-Shape $3.5mm \times 6.35mm$ 16           20         E3B         D-Shape $3.5mm \times 17.0mm$ 20           19         E3C         D-Shape $3.5mm \times 17.0mm$ 20           21         E3C         D-Shape $3.5mm \times 17.0mm$ 16           20         E3F         Bell-Shape $3.5mm \times 10.0mm$ 18           19         E3D         D-Shape $3.5mm \times $						
14       E2P       D-Shape       3.0mm × 10.0mm       19         13       E2R       D-Shape       3.5mm × 10.0mm       20         19       E2S       D-Shape       3.0mm × 6.0mm       19         13       E2T       D-Shape       3.0mm × 6.0mm       19         14       E2U       D-Shape       3.0mm × 12.7mm       19         14       E2V       D-Shape       3.0mm × 17.0mm       19         14       E2V       D-Shape       3.5mm × 6.0mm       20         18       E2X       D-Shape       3.5mm × 10.0mm       10         19       E2Y       D-Shape       3.5mm × 10.0mm       20         19       E2Y       D-Shape       3.5mm × 17.0mm       20         21       E3A       Square       6.35mm × 17.0mm       20         21       E3C       D-Shape       3.5mm × 7.0mm       15         20       E3F       Bell-Shape       3.5mm × 10.0mm       18         21       E3G       Bell-Shape       3.05mm × 10.2mm       18         20       E3F       Bell-Shape       3.05mm × 10.2mm       18         20       E3F       Bell-Shape       3.05mm × 10.2mm       18						
13       E2R       D-Shape $3.5mm \times 10.0mm$ $20$ 19       E2S       D-Shape $3.0mm \times 6.0mm$ 19         13       E2T       D-Shape $3.0mm \times 8.0mm$ 19         14       E2U       D-Shape $3.0mm \times 12.7mm$ 19         14       E2V       D-Shape $3.0mm \times 12.7mm$ 19         15       E2W       D-Shape $3.5mm \times 6.0mm$ 20         18       E2X       D-Shape $3.5mm \times 6.0mm$ 20         19       E2Y       D-Shape $3.5mm \times 6.0mm$ 20         19       E2Y       D-Shape $3.5mm \times 6.3mm$ 20         21       E3A       Square $6.35mm \times 6.35mm$ 20         21       E3C       D-Shape $3.5mm \times 17.0mm$ 20         21       E3C       D-Shape $5.25mm \times 17.15mm$ 21         20       E3F       Bell-Shape $3.5mm \times 10.0mm$ 18         19       E3G       Bell-Shape $3.05mm \times 10.2mm$ 18         19       E3G       Bell-Shape $3.0mm$ diameter       22         15       E3K       Round-Shape $3.0mm$						
13         E2T         D-Shape         3.0mm × 8.0mm         19           14         E2U         D-Shape         3.0mm × 12.7mm         19           14         E2V         D-Shape         3.0mm × 17.0mm         19           15         E2W         D-Shape         3.5mm × 6.0mm         20           18         E2X         D-Shape         3.5mm × 6.0mm         20           19         E2Y         D-Shape         3.5mm × 12.7mm         20           21         E3A         Square         6.35mm × 12.7mm         20           21         E3C         D-Shape         3.5mm × 17.0mm         20           21         E3C         D-Shape         3.5mm × 17.15mm         21           20         E3B         D-Shape         4.06mm × 14.22mm         20           19         E3D         D-Shape         2.54mm × 10.0mm         15           20         E3F         Bell-Shape         3.05mm × 10.0mm         18           17         E3H         Bell-Shape         3.05mm × 10.2mm         18           18         E3J         Round-Shape         3.0mm diameter         22           21         E3K         Round-Shape         4.0mm diameter						
14         E2U         D-Shape         3.0mm × 12.7mm         19           14         E2V         D-Shape         3.0mm × 17.0mm         19           15         E2W         D-Shape         3.5mm × 6.0mm         20           18         E2X         D-Shape         3.5mm × 6.0mm         20           19         E2Y         D-Shape         3.5mm × 17.0mm         20           21         E3A         Square         6.35mm × 12.7mm         20           21         E3A         Square         6.35mm × 12.7mm         20           21         E3C         D-Shape         3.5mm × 17.0mm         20           21         E3C         D-Shape         3.5mm × 17.0mm         20           21         E3C         D-Shape         5.25mm × 17.15mm         21           20         E3F         Retangle         3.5mm × 10.0mm         18           20         E3F         Bell-Shape         3.05mm × 10.2mm         18           17         E3H         Bell-Shape         3.05mm × 10.2mm         18           18         E3J         Round-Shape         3.0mm diameter         22           15         E3K         Round-Shape         4.0mm diameter		-				
14       E2V       D-Shape       3.0mm × 17.0mm       19         15       E2W       D-Shape       3.5mm × 6.0mm       20         18       E2X       D-Shape       3.5mm × 8.0mm       20         19       E2Y       D-Shape       3.5mm × 8.0mm       20         19       E2Y       D-Shape       3.5mm × 8.0mm       20         21       E3A       Square       6.35mm × 6.35mm       16         20       E3B       D-Shape       3.5mm × 17.0mm       20         21       E3C       D-Shape       3.5mm × 17.0mm       20         21       E3C       D-Shape       5.25mm × 17.15mm       21         20       E3F       Retangle       3.5mm × 7.0mm       15         20       E3F       Bell-Shape       2.54mm × 10.0mm       18         20       E3F       Bell-Shape       3.05mm × 10.2mm       18         20       E3F       Bell-Shape       3.0mm diameter       22         21       E3G       Bell-Shape       3.0mm diameter       22         215       E3K       Round-Shape       4.0mm diameter       22         21       E3L       Rectangle       1.78mm × 6.35mm						
15         E2W         D-Shape         3.5mm × 6.0mm         20           18         E2X         D-Shape         3.5mm × 6.0mm         20           19         E2Y         D-Shape         3.5mm × 8.0mm         20           21         E3A         Square         6.35mm × 6.35mm         16           20         E3B         D-Shape         3.5mm × 6.35mm         20           21         E3C         D-Shape         3.5mm × 17.0mm         20           21         E3C         D-Shape         4.06mm × 14.22mm         20           19         E3D         D-Shape         5.25mm × 17.15mm         21           20         E3E         Rectangle         3.5mm × 7.0mm         15           20         E3F         Bell-Shape         2.54mm × 10.0mm         18           19         E3G         Bell-Shape         3.05mm × 10.2mm         18           17         E3H         Bell-Shape         3.0mm diameter         22           15         E3K         Round-Shape         4.0mm diameter         22           21         E3L         Rectangle         1.78mm × 6.35mm         14           14         E3M         Mini-Clip         4.15mm × 7.3mm <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
19         E2Y         D-Shape         3.5mm × 12.7mm         20           21         E3A         Square         6.35mm × 6.35mm         16           20         E3B         D-Shape         3.5mm × 17.0mm         20           21         E3C         D-Shape         3.5mm × 17.0mm         20           21         E3C         D-Shape         4.06mm × 14.22mm         20           19         E3D         D-Shape         5.25mm × 17.15mm         21           20         E3E         Rectangle         3.5mm × 7.0mm         15           20         E3F         Bell-Shape         2.54mm × 10.0mm         18           19         E3G         Bell-Shape         3.05mm × 10.7mm         18           17         E3H         Bell-Shape         3.0mm diameter         22           15         E3K         Round-Shape         4.0mm diameter         22           21         E3L         Rectangle         1.78mm × 6.35mm         14           14         E3M         Mini-Clip         4.15mm × 7.3mm         17           13         E3P         L-Shape         5.3mm × 5.3mm         18           13         E3Q         D-Shape         4.3mm × 6.0mm </td <td></td> <td>E2W</td> <td></td> <td></td> <td></td> <td></td>		E2W				
21       E3A       Square       6.35mm × 6.35mm       16         20       E3B       D-Shape       3.5mm × 17.0mm       20         21       E3C       D-Shape       4.06mm × 14.22mm       20         19       E3D       D-Shape       5.25mm × 17.15mm       21         20       E3E       Rectangle       3.5mm × 7.0mm       15         20       E3F       Bell-Shape       2.54mm × 10.0mm       18         20       E3F       Bell-Shape       3.05mm × 10.2mm       18         20       E3F       Bell-Shape       3.05mm × 10.2mm       18         17       E3H       Bell-Shape       3.0mm diameter       22         18       E3J       Round-Shape       4.0mm diameter       22         15       E3K       Round-Shape       4.0mm diameter       22         21       E3L       Rectangle       1.78mm x 6.35mm       14         14       E3M       Mini-Clip       4.15mm x 7.3mm       17         13       E3P       L-Shape       5.3mm x 6.35mm       18         13       E3Q       D-Shape       4.3mm x 6.0mm       21         17       E3S       Knife Edge       6.4mm x 19.1mm<						
20         E3B         D-Shape         3.5mm × 17.0mm         20           21         E3C         D-Shape         4.06mm × 14.22mm         20           19         E3D         D-Shape         5.25mm × 17.15mm         21           20         E3E         Rectangle         3.5mm × 7.0mm         15           20         E3F         Bell-Shape         2.54mm × 10.0mm         18           19         E3G         Bell-Shape         3.05mm × 10.2mm         18           17         E3H         Bell-Shape         3.0mm diameter         22           15         E3K         Round-Shape         4.0mm diameter         22           21         E3L         Rectangle         1.78mm × 6.35mm         14           14         E3M         Mini-Clip         4.15mm x 7.3mm         17           13         E3P         L-Shape         5.3mm x 5.3mm         18           13         E3Q         D-Shape         4.3mm x 6.0mm         21           17         E3S         Knife Edge         6.4mm x 19.1mm         17           13         E3V         T-Shape         9.53mm x 8.26mm         22           14         E3W         T-Shape         9.53mm x 15.						
21       E3C       D-Shape       4.06mm × 14.22mm       20         19       E3D       D-Shape       5.25mm × 17.15mm       21         20       E3E       Rectangle       3.5mm × 7.0mm       15         20       E3F       Bell-Shape       2.54mm × 10.0mm       18         19       E3G       Bell-Shape       2.54mm × 10.0mm       18         19       E3G       Bell-Shape       3.05mm × 10.2mm       18         17       E3H       Bell-Shape       3.0mm diameter       22         15       E3K       Round-Shape       3.0mm diameter       22         15       E3K       Round-Shape       4.0mm diameter       22         21       E3L       Rectangle       1.78mm × 6.35mm       14         14       E3M       Mini-Clip       4.15mm × 7.3mm       17         13       E3P       L-Shape       5.3mm × 5.3mm       18         13       E3Q       D-Shape       4.3mm × 6.0mm       21         17       E3S       Knife Edge       6.4mm × 19.1mm       17         15       E3V       T-Shape       9.53mm × 6.86mm       22         14       E3W       T-Shape       9.53mm × 15.62m						
20         E3E         Rectangle         3.5mm × 7.0mm         15           20         E3F         Bell-Shape         2.54mm × 10.0mm         18           19         E3G         Bell-Shape         3.05mm × 10.2mm         18           17         E3H         Bell-Shape         3.05mm × 10.2mm         18           17         E3H         Bell-Shape         3.0mm diameter         22           15         E3K         Round-Shape         4.0mm diameter         22           21         E3L         Rectangle         1.78mm x 6.35mm         14           14         E3M         Mini-Clip         4.15mm x 7.3mm         17           13         E3P         L-Shape         5.3mm x 5.3mm         18           13         E3Q         D-Shape         4.3mm x 6.0mm         21           17         E3S         Knife Edge         6.4mm x 19.1mm         17           15         E3V         T-Shape         9.3mm x 8.26mm         22           14         E3W         T-Shape         9.3mm x 8.26mm         22           13         E3X         C-Fold         18.79mm × 15.62mm         22           13         E3X         C-Fold         23.52mm × 15						
20         E3F         Bell-Shape         2.54mm × 10.0mm         18           19         E3G         Bell-Shape         3.05mm × 10.2mm         18           17         E3H         Bell-Shape         3.05mm × 10.2mm         18           17         E3H         Bell-Shape         3.05mm × 12.7mm         18           18         E3J         Round-Shape         3.0mm diameter         22           15         E3K         Round-Shape         4.0mm diameter         22           21         E3L         Rectangle         1.78mm × 6.35mm         14           14         E3M         Mini-Clip         4.15mm × 7.3mm         17           13         E3P         L-Shape         5.3mm × 6.35mm         18           13         E3Q         D-Shape         4.3mm × 6.0mm         21           17         E3S         Knife Edge         6.4mm × 19.1mm         17           15         E3V         T-Shape         9.53mm × 6.86mm         22           14         E3W         T-Shape         9.53mm × 6.86mm         22           13         E3X         C-Fold         18.79mm × 15.62mm         22           21         E3Y         C-Fold         23.52						
19         E3G         Bell-Shape         3.05mm × 10.2mm         18           17         E3H         Bell-Shape         3.6mm × 12.7mm         18           18         E3J         Round-Shape         3.0mm diameter         22           15         E3K         Round-Shape         4.0mm diameter         22           21         E3L         Rectangle         1.78mm x 6.35mm         14           14         E3M         Mini-Clip         4.15mm x 7.3mm         17           13         E3P         L-Shape         5.3mm x 5.3mm         18           13         E3Q         D-Shape         4.3mm x 6.0mm         21           17         E3S         Knife Edge         6.4mm x 19.1mm         17           15         E3V         T-Shape         9.53mm x 8.26mm         22           14         E3W         T-Shape         9.53mm x 6.86mm         22           13         E3X         C-Fold         18.79mm x 15.62mm         22           21         E3Y         C-Fold         23.52mm x 15.77mm         22						
17         E3H         Bell-Shape         3.6mm × 12.7mm         18           18         E3J         Round-Shape         3.0mm diameter         22           15         E3K         Round-Shape         4.0mm diameter         22           21         E3L         Rectangle         1.78mm × 6.35mm         14           14         E3M         Mini-Clip         4.15mm × 7.3mm         17           13         E3P         L-Shape         5.3mm × 5.3mm         18           13         E3Q         D-Shape         4.3mm × 6.0mm         21           17         E3S         Knife Edge         6.4mm × 19.1mm         17           15         E3V         T-Shape         9.53mm × 8.26mm         22           14         E3W         T-Shape         9.53mm × 15.62mm         22           13         E3X         C-Fold         18.79mm × 15.62mm         22           21         E3Y         C-Fold         23.52mm × 15.77mm         22						
18         E3J         Round-Shape         3.0mm diameter         22           15         E3K         Round-Shape         4.0mm diameter         22           21         E3L         Rectangle         1.78mm x 6.35mm         14           14         E3M         Mini-Clip         4.15mm x 7.3mm         17           13         E3P         L-Shape         5.3mm x 5.3mm         18           13         E3Q         D-Shape         4.3mm x 6.0mm         21           17         E3S         Knife Edge         6.4mm x 19.1mm         17           15         E3V         T-Shape         9.53mm x 6.86mm         22           14         E3W         T-Shape         9.53mm x 6.86mm         22           13         E3X         C-Fold         18.79mm x 15.62mm         22           21         E3Y         C-Fold         23.52mm x 15.77mm         22						
21         E3L         Rectangle         1.78mm x 6.35mm         14           14         E3M         Mini-Clip         4.15mm x 7.3mm         17           13         E3P         L-Shape         5.3mm x 5.3mm         18           13         E3Q         D-Shape         4.3mm x 6.0mm         21           17         E3S         Knife Edge         6.4mm x 19.1mm         17           15         E3V         T-Shape         4.93mm x 8.26mm         22           14         E3W         T-Shape         9.53mm x 6.86mm         22           13         E3X         C-Fold         18.79mm x 15.62mm         22           21         E3Y         C-Fold         23.52mm x 15.77mm         22			Round-Shape			
14         E3M         Mini-Clip         4.15mm x 7.3mm         17           13         E3P         L-Shape         5.3mm x 5.3mm         18           13         E3Q         D-Shape         4.3mm x 6.0mm         21           17         E3S         Knife Edge         6.4mm x 19.1mm         17           15         E3V         T-Shape         4.93mm x 8.26mm         22           14         E3W         T-Shape         9.53mm x 6.86mm         22           13         E3X         C-Fold         18.79mm x 15.62mm         22           21         E3Y         C-Fold         23.52mm x 15.77mm         22						
13         E3P         L-Shape         5.3mm x 5.3mm         18           13         E3Q         D-Shape         4.3mm x 6.0mm         21           17         E3S         Knife Edge         6.4mm x 19.1mm         17           15         E3V         T-Shape         9.93mm x 8.26mm         22           14         E3W         T-Shape         9.53mm × 6.86mm         22           13         E3X         C-Fold         18.79mm × 15.62mm         22           21         E3Y         C-Fold         23.52mm × 15.77mm         22						
13         E3Q         D-Shape         4.3mm x 6.0mm         21           17         E3S         Knife Edge         6.4mm x 19.1mm         17           15         E3V         T-Shape         4.93mm x 8.26mm         22           14         E3W         T-Shape         9.53mm x 6.86mm         22           13         E3X         C-Fold         18.79mm x 15.62mm         22           21         E3Y         C-Fold         23.52mm x 15.77mm         22						
15         E3V         T-Shape         4.93mm x 8.26mm         22           14         E3W         T-Shape         9.53mm × 6.86mm         22           13         E3X         C-Fold         18.79mm × 15.62mm         22           21         E3Y         C-Fold         23.52mm × 15.77mm         22	13	E3Q	D-Shape		4.3mm x 6.0mm	21
14         E3W         T-Shape         9.53mm × 6.86mm         22           13         E3X         C-Fold         18.79mm × 15.62mm         22           21         E3Y         C-Fold         23.52mm × 15.77mm         22						
13         E3X         C-Fold         18.79mm × 15.62mm         22           21         E3Y         C-Fold         23.52mm × 15.77mm         22						
21 E3Y C-Fold 23.52mm × 15.77mm 22						
20 E4A D-Shape 4.0mm × 3.8mm 20	21	E3Y	C-Fold		23.52mm × 15.77mm	22
	20	E4A	D-Shape		4.0mm × 3.8mm	20

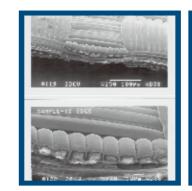
## **Reference Guide**

## **Conductive Materials Specifications**

## **Reference Guide: Cross - Reference Guide to EMI Shielding Gaskets**

The listing below is a numerical listing of the fabric over foam profiles. For additional product and / or ordering information, please contact a SEM representative.

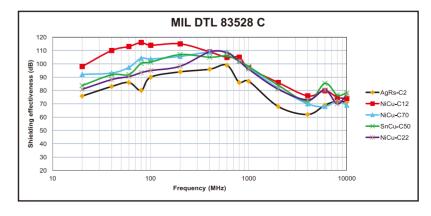
Profile	Complex Shape	Dimensions	Page#
E4B	D-Shape	5.08mm x 12.2mm	21
E4C	C-Fold	12.42mm x 15.06mm	22
E4D	Rectangle	5.0mm x 7.6mm	16
E4E	Rectangle	6.6mm x 6.6mm	16
E4F	Rectangle	8.5mm x 8.5mm	16
E4H	D-Shape	2.3mm x 3.8mm	19
E4J	D-Shape	2.74mm x 3.8mm	19
E4K	D-Shape	1.8mm x 6.0mm	18
E4L	D-Shape	1.78mm x 6.35mm	18
E4M	C-Fold	16.5mm x 14.7mm	22
E4N	C-Fold	20.9mm x 14.7mm	22
E4P	T-Shape	3.8mm x 4.8mm	22
E4Q	T-Shape	9.53mm x 4.83mm	22
E4R	T-Shape	6.4mm x 6.9mm	22
E4S	T-Shape	5.7mm x 4.8mm	22
E4T	T-Shape	5.1mm x 6.9mm	22
E4U	Rectangle	2.54mm x 6.6mm	14
E4V	C-Fold	8.79mm x 11.3mm	21
E4W	C-Fold	16.5mm x 14.7mm	22
E4X	Rectangle	6.4mm x 8.3mm	16
E4Y	L-Shape	9.68mm x 24.0mm	18
E5A	C-Fold	19.5mm x 16.6mm	22
E5B	Wedge	5.54mm x 42.9mm	17
E5C	Rectangle	2.0mm x 5.08mm	14
E5G	Rectangle	2.5mm x 12.7 mm	14
E5J	Wedge	5.54mm x 33.4mm	17
E5K	T-Shape	7.0mm x 6.9mm	22
E5M	D-Shape	1.0mm x 2.5mm	18
E5N	T-Shape	7.6mm x 4.8mm	22
E5R	D-Shape	2.03mm x 2.03mm	19
E5S	D-Shape	3.94mm x 6.35mm	20
E5T	Rectangle	5.08mm x 12.7mm	16
E5U	D-Shape	1.5mm x 2.5mm	18
E5V	Rectangle	8.0mm x 10.0mm	16
E5W	D-Shape	2.0mm x 4.6mm	18
E5Y	C-Fold	16.51mm x 14.73mm	22
E6B	Rectangle	7.0mm x 20.0mm	16
E6C	L-Shape	3.3mm x 3.3mm	18
E6G	Rectangle	2.5mm x 6.0mm	14
E6H	Rectangle	1.0mm x 8.0mm	13



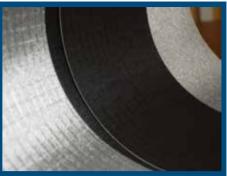
Schlegel Electronic Materials (SEM) has always been on the forefront of fabric over foam technology. And today fabric over foam continues to be at the core of our product lines. We offer a variety of fabrics including:

NiCu-C22: Nickel-Copper plated polyester ripstop fabric with Schlegel protective top coating.
 NiCu-C70: Nickel-Copper plated polyester ripstop fabric with Schlegel protective top coating.
 NiCu-C12: Nickel-Copper plated polyester plain weave fabric with Schlegel protective top coating.
 SnCu-C50: Tin Copper plated nylon plain weave fabric with Schlegel protective top coating.
 Ag-C2: Silver plated nylon ripstop fabric with Schlegel carbon coating.

	NiCu-C70	NiCu-C12	Ag-C2	SnCu-C50	NiCu-C22
Color	Grey	Grey	Black	Dark Grey	Black
Fabric Type	PET	PET	PA 6	PA 6	PET
	Rip-stop	Plain Weave	Rip-stop	Plain Weave	Rip-stop
Top Coating-Basis	Acrylic	Acrylic	Urethane	Acrylic	Urethane
Surface Resistivity	<=0.066 Ω/sq.	<=0.024 Ω/sq.	<=0.5 Ω/sq.	<=0.020 Ω/sq.	<=0.08 Ω/sq.
Shielding	96 dB	97.4 dB	95 dB	95.3 dB	95.76 dB
Effectiveness (AVG.)	Mil DTL 83528C				
Contact Resistance	0.11 Ω-inch	0.08 Ω-inch	< 1.00 Ω-inch	0.09 Ω-inch	0.2 Ω-inch
(@1kg load)	SEM LP 3001				
Abrasion Resistance	1,000	1,000	800	1,000	1,000
(cycles)	ASTM D3884				
Core	All types				
Compliances	2015/863/EU	2015/863/EU	2015/863/EU	2015/863/EU	2015/863/EU
	(RoHS 2.0)				
Galvanic Compatibility	SAE ARP 1481				
(Ni, Tin, Al, Zn)	classB	classB	classB	classB	classB



These profiles are also recognized under CSA C 🔊 (Canada) and IEC 707, ISO 1210, and ISO 9773 Classifications. \* Contact your sales or customer service representative for details, special minimum order quantity may apply.



## NiCu-C70

## NiCu-C12

Schlegel Electronic Materials (SEM) C70 EMI gaskets provide outstanding value and performance for demanding telecommunication, server, and mainframe applications. SEM C70 gaskets are designed with Nickel-Copper cladding. These metals, when plated to our polyester rip-stop fabric, are non-abrasive to plated and painted surfaces, and maintain galvanic compatibility with a wide range of surfaces.

#### **Specifications - Nickel-Copper C70**

NiCu C70 gaskets consist of a layer of copper topped by a layer of nickel, plated to a polyester rip-stop fabric and sealed with our exclusive acrylic-based C70 coating. This fabric is non-abrasive to plated and painted surfaces. It is also guite versatile, maintaining galvanic compatibility with a wide range of surfaces.

This design allows SEM to meet the design requirements of value-conscious OEMs, with no compromise to performance.

#### **Material Specifications:**

Cladding: Nickel/Copper C70 (polyester rip-stop) Surface Resistivity: <=0.066 ohm/■ and CpK ≥2.0

## **Shielding Effectiveness:**

Shielding performance of 1/4" x 3/8" gasket per MIL-G-83528B in frequencies of 20 MHz to 10 GHz: 96dB (average) Note: Gasket geometry and application determine actual shielding effectiveness

Contact Resistance (SEM LP-3001): 0.11 ohm-inch at 1kg load/inch

Abrasion Resistance (ASTM D3884): No change in surface resistivity: 1,000 cycles

Compliance: 2015/863/EU (RoHS 2.0)

### **Foam Specifications**

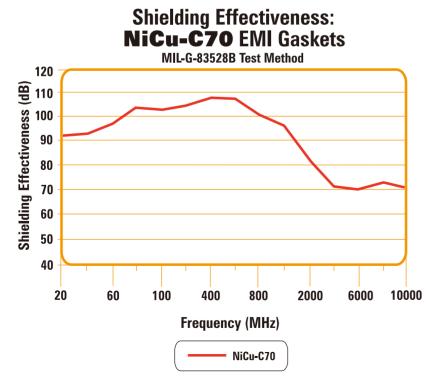
All C70 products are constructed with SEM's unsurpassed, industry leading polyurethane foam core technology. Within the C70 cladding you can select from the following options:

-Standard, highly resilient UL 94-HB recognized foam

-Bromine- free flame retardant UL 94-V0 recognized foam

## **Compression Set:**

The core of SEM shielding gaskets is open-celled polyether polyurethane foam in a high-resiliency (HB) formula. Compression set of foam that is encapsulated is 1% at ambient temperature, and < 5% at 70°C (158°F) when compressed 50% for 22 hours.



Schlegel Electronic Materials (SEM) C12 EMI gaskets provide premium performance for demanding telecommunication, optical, mainframe, and supercomputer applications. SEM C12 gaskets are designed with Nickel-Copper cladding. SEM C12 cladding resists fracturing, thus providing reliable high-frequency shielding performance. SEM C12 gaskets are designed for high temperature applications and offer superior current-carrying performance for improved ESD and EMP protection.

#### **Specifications - Nickel-Copper C12 Nickel-Copper C12 Specifications**

SEM's uniquely designed NiCu C12 gaskets are designed to provide maximum shielding effectiveness, environmental durability, and abrasion resistance. C12 cladding is ideal for high-frequency shielding, due to its unique design: copper topped by nickel, plated to a polyester woven substrate. Because they experience significantly less fracturing than other nickel-plated gaskets, SEM C12 gaskets maintain high-frequency performance in situations where shielding above 97 dB is required. The exclusive acrylic-based C12 coating provides improved galvanic compatibility with a wide range of materials.

#### **Material Specifications:**

Cladding: Nickel/Copper C12 (polyester plain weave) Surface Resistivity: <= 0.024 ohm/■ and CpK ≥2.0

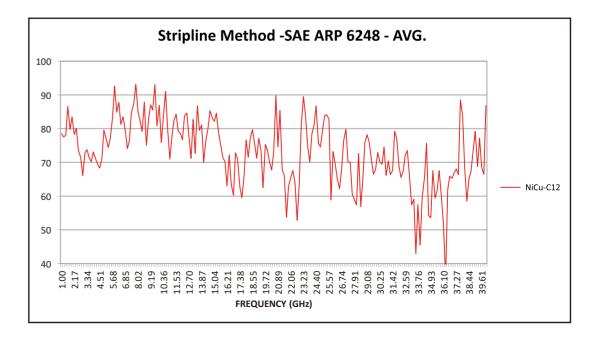
## **Shielding Effectiveness:**

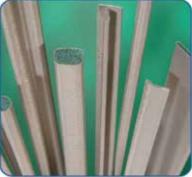
Shielding performance of gasket per SAE ARP 6248 in frequencies of 1 GHz to 40 GHz. Note: Gasket geometry and application determine actual shielding effectiveness Contact Resistance (SEM LP-3001): 0.08 ohm-inch at 1 kg load/inch Abrasion Resistance (ASTM D3884): No change in surface resistivity: 1,000 cycles Compliance: 2015/863/EU (RoHS 2.0)

#### Foam Specifications

All C12 products are constructed with SEM's unsurpassed, industry leading polyurethane foam core technology. Within the C12 cladding you can select from the following options: -Standard, highly resilient UL 94-HB recognized foam -Bromine-free flame retardant UL 94-V0 recognized foam **Compression Set:** 

# compressed 50% for 22 hours.





The core of SEM shielding gaskets is open-celled polyether polyurethane foam in a high-resiliency (HB) formula. Compression set of foam that is encapsulated is 1% at ambient temperature, and <5% at 70°C (158°F) when

## AgRs-C2

## SnCu-C50

Schlegel Electronic Materials (SEM) invented the first fabric-over-foam gasket in 1987. At that time the very first conductive cladding used was the, now very famous, blackened silver Ripstop fabric AgRs-C2. A silver plated nvlon 6/6 fiber woven in a Ripstop fabric with a urethane based anti-corrosion top coating with Schlegel Electronic Materials proprietary fillers formulated to improve abrasion resistance and galvanic compatibility. AgRs-C2 did serve later on as a reference to the all shielding market. This highly flexible conductive fabric is still available today because of its unique characteristics linked to the silver such as high conductivity of silver oxides, anti-bacterial properties for medical applications, and good adhesion properties on PA 6.6.



Schlegel Electronic Materials is pro-actively proposing a Halogen Free (IEC61249-2-21) EMI shielding range of products as we believe that these substances will be considered for inclusion in future RoHS legislation . Schlegel Electronic Materials is also in compliance with the 4 new restricted substances which should be added in annex II of the Directive before 2018 (Flame retardant HBCDD and phthalates DEHP, BBP and DBP).

#### **Technical Specifications**

Silver plated woven Nvlon 6/6, 30 denier Light Ripstop fabric. Nominal fabric thickness: 0.003 in. Top coat: urethane based anti-corrosion coating with Schlegel Electronic Materials, Inc. proprietary fillers. Nominal thickness of C2 coating is .25 oz/yd<sup>2</sup> **Material Specifications:** 

Cladding: Silver C2 (PA66, Ripstop)

Surface Resistivity: <=0.5 ohm/■ and CpK ≥2.0

## Shielding Effectiveness:

Shielding performance of 1/4" x 3/8" gasket per MIL-G-83528 F in frequencies of 20 MHz to10 GHz: 95 dB avg. - See graph here below

Note: Gasket geometry and application determine actual shielding effectiveness

Contact Resistance (SEM LP-3001): < 1.0 ohms-inch at 1 Kg load/inch

Abrasion Resistance (ASTM D3886): No change in surface resistivity: 800 cycles

Compliance: 2015/863/EU (RoHS 2.0)

#### Foam Specifications

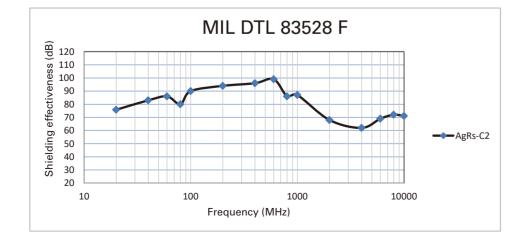
All C2 products are constructed with SEM's unsurpassed, industry leading polyurethane foam core technology. Within the C2 cladding you can select from the following options:

- Standard, highly resilient UL 94-HB recognized foam

- UL 94-V0 recognized foams

## **Compression Set:**

The core of SEM shielding gaskets is open-celled polyether polyurethane foam in a high-resiliency (HB) formula. Compression set of foam that is encapsulated is 1% at ambient temperature, and <5% at 70°C (158°F) when compressed 50% for 22 hours.



Schlegel Electronic Materials (SEM) SnCu-C50 EMI Gaskets provide excellent performance for outdoor cabinet applications. SEM SnCu-C50 gaskets are designed with Tin-Copper cladding over woven fabric. This provides good galvanic compatibility for most common frame materials. This also yields one of the lowest surface resistances available.

Schlegel Electronic Materials SnCu-C50 fabric is available in a variety of outdoor cabinet sealing shapes over closed cell foam cores including EPDM and Poron.

Rectangular shapes are available utilizing SnCu-C50 fabric and Poron cores.

SnCu-C50 is also available over our type 7 open cell foam with UL94-V0 rating in D shapes.

#### **Specifications - SnCu-C50**

## **Tin-Copper SnCu-C50 Specifications**

SEM's SnCu-C50 gaskets are designed to provide improved galvanic compatibility with outdoor cabinet applications while maintaining maximum shielding effectiveness.

## **Material Specifications:**

Cladding : Tin/Copper with C50 acrylic coating (polyester plain weave)

## Surface Resistivity: 0.016 ohm/

### **Shielding Effectiveness:**

Shielding performance of 1/4" x 3/8" gasket per MIL-Dtl-83528C, frequency of 20MHz to 10 GHz: 95.3 dB (average) Note: Gasket geometry and application determine actual shielding effectiveness.

Contact Resistance (SEM LP-3001): 0.09 ohm-inch at 1 Kg load/inch

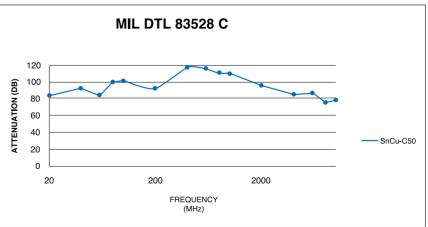
Abrasion Resistance (ASTM D3884): No change resistivity: 1,000 cycles

Compliance: 2015/863/EU (RoHS 2.0)

#### **Color Variation:**

A tin oxy-hydroxide passive layer is formed on the top of the metal which may induce light color variations in time. This layer provides a more effective corrosion protection than nickel and doesn't affect the electrical characteristics of the fabric.

## Shielding Effectiveness





## NiCu-C22

## **Characterization of EMI Shielding Gaskets**

#### NiCu-C22: REVITILIZING THE PAST!

Schlegel Electronic Materials (SEM) invented the first Fabric-Over -Foam gasket in 1987. At that time, the first conductive cladding used was the now famous blackened Silver Rip-Stop fabric AgRs-C2. AgRs-C2 would later serve as a reference for the entire shielding market. This highly flexible conductive fabric is still available today with unique characteristics linked to the silver.

After 25 years of continuous research and development in the efficiency of flexible substrates and coatings, Schlegel Electronic Materials is now proud to complete its offering of blackened EMI shielding gaskets with the introduction of its new cost-effective NiCu-C22



fabric. While NiCu-C22 is visually inspired by its silver-made precursor, the new materials utilized for its construction feature low surface resistivity, high abrasion resistance and enhanced shielding effectiveness. NiCu-C22 is available with most of SEM's profiles and foams.

#### **Nickel-Copper NiCu-C22 Specifications** Material:

Cladding: Ni/Cu with urethane coating (Polyester Ripstop Fabric)

#### **Shielding Effectiveness:**

Shielding Performance of 1/4" x 3/8" gasket per MIL-Dtl-83528C, frequency of 20MHz to 10GHz: 95.76 dB (average) Note: Gasket geometry and application determine actual shielding effectiveness

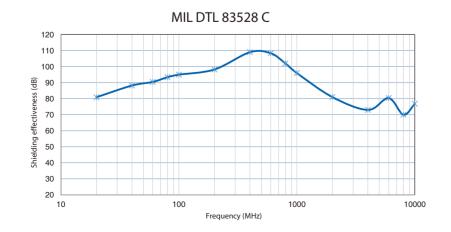
Surface Resistivity: <=0.08 ohm/

Contact Resistance (SEM LP-3001): <= 0.2 ohm-inch at 1 Kg load/inch

Abrasion Resistance (ASTM D3884): No change resistivity after1,000 cycles

Compliance: 2015/863/EU (RoHS 2.0)

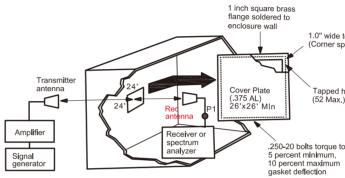
Galvanic Compatibility (Ni,Sn,Al,Zn): SAE ARP 1481 Class B



Schlegel Electronic Materials (SEM) is an active member of the IEEE P1302 Committee. This working group is in charge of the review of the methods to characterize Conductive gasket from DC to 40 GHz. Hereafter is a brief description of the main methods in use at SEM.

## Mil DTL 83528 C.

This aperture attenuation method derived from the former Mil Std 285/IEEE 299 characterizes the shielding effectiveness (SE) of the gasket from 20 MHz to 10 GHz. The test set-up consist of a shielded room with an opening of 610/610 mm (24"/24") with one emitting antenna outside and a receiving antenna inside the room and two meters distance between antennas.

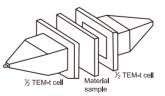


A first measurement is made from one antenna to the other through the opening and a second is made when the opening is closed by means of a metal plate with the gasket to be tested mounted around and compressed. The method measures the field before and after the metal / gasket and the shielding effectiveness of the gasket is: 20 log E1/E2 (H1/H2) or the difference between both measurements in dB from 20 MHz to 10 GHz. Measurements according to Mil DTL 83528C can be compared and especially if testing are carried out by an independent laboratory. The specification requires a minimum of 5 measurements per decade and SEM provide in its technical documentation the average value of the 15 measurements.

## **TEM-T** and Ht cells

For the measurement of Shielding Effectiveness for small size gaskets, SEM is using TEM-T and Ht Cells. This is a non-standardized test method described in IEEE Std 1302 and used in R&D because of its good repeatability (1-3 dB). TEM-t is a TEM mode transmission line device simulating far field conditions. The square coaxial fixture of the TEM-t is cut in the middle so that a gasket holder compressing the gasket under test can be inserted between the two halves of the measuring equipment. The H-t cell is made by a set of two small loop antennas simulating the magnetic near field.





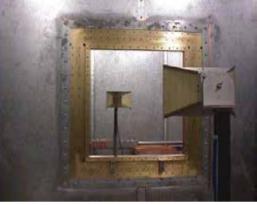


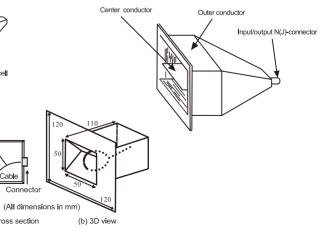
Ht

Looi (a) Cross section

1.0" wide test gasket (Corner splices accentable)

Tapped holes (52 Max.)

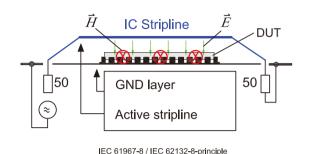


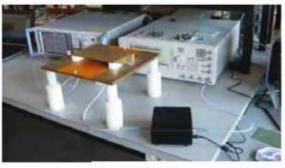


## **Part Number Guide**

## STRIPLINE METHOD (0.1-40 GHz)

Schlegel Electronic Materials (SEM), in partnership with the KULab REMI research group of the KULeuven (University of Leuven-Belgium), developed a new testing fixture to characterize the shielding effectiveness of conductive gaskets up to 40 GHz. The principle of this fixture is based on a method that was first introduced by Prof. B. Koerber to measure the radiated emission and susceptibility of Integrated Circuits (IEC 61967-8 and IEC 62132-8). The method utilizes a stripline antenna which closes over a PC-Board.





Stripline Fixture

In the new stripline fixture, the PC board with the IC under test is replaced by a small microstrip antenna embedded into a cavity within the ground plane. The cavity can be closed by means of a thick plate which compresses the gasket under test. A stripline antenna covers the set-up.



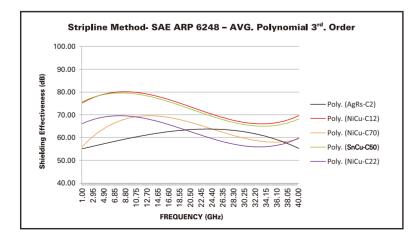


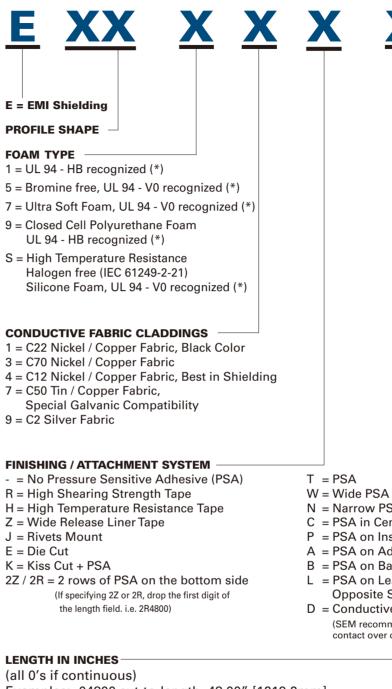


The testing procedure similar to IEEE 299 is as follows:

- a direct measurement from microstrip to stripline (signal before the shield).
- measurement of the closed cavity with the gasket under test (signal after the shield).
- Difference between both measurements in dB is the Shielding Effectiveness of the gasket .

The test method has been supported by a standard from SAE (Society of Automotive and Aerospace Engineers) under the reference SAE ARP 6248.





Examples: 04800 cut-to-length 48.00" [1219.2mm] 00138 cut-to-length 1.38" [35.1mm] 00152 cut-to-length 1.52" [38.6mm]

#### Some foam and fabric options may not be available with certain profiles. Please consult your SEM representative for details

UL is a registered trademark of Underwriters Laboratories, Inc. UL tests are under the component program of Underwriters Laboratories, Inc. in specified claddings and thickness

\*Flame Rating UL 94 - V0, UL 94 - HB is a characteristic of the complete gasket; the foam component is not tested separately

We may modify our Part No. structure for special custom made parts.

The preceding information is believed accurate by SEM. In no event, however, shall SEM have any liability whatsoever for inaccuracies or omissions contained therein. In all cases, details and values should be verified by the customer. These products are covered by various U.S. and foreign patents





Halogen free, IEC 61249-2-21, part number ends with HF. Non-halogen free part number ends without HF. (HF, option is recommended.)

Think SEM For Shielding.

N = Narrow PSA C = PSA in Center P = PSA on Inside Leg A = PSA on Adjacent Side B = PSA on Backside L = PSA on Lead Edge or **Opposite Seam Side** D = Conductive Adhesive (SEM recommends direct fabric contact over conductive adhesive. )



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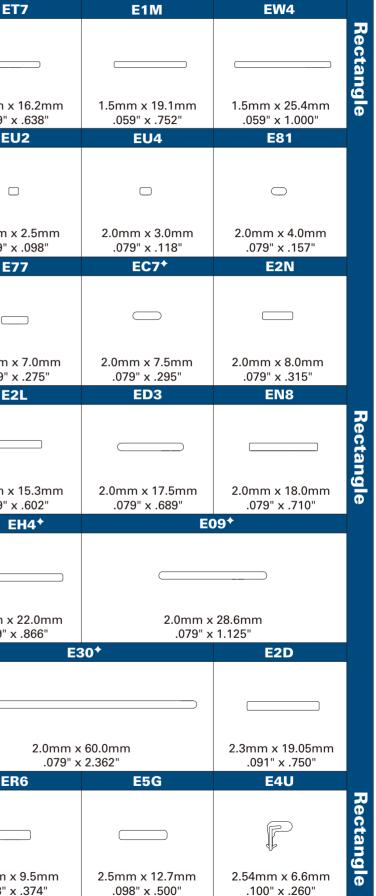
© Schlegel Electronic Materials, Inc.

## **Profiles**

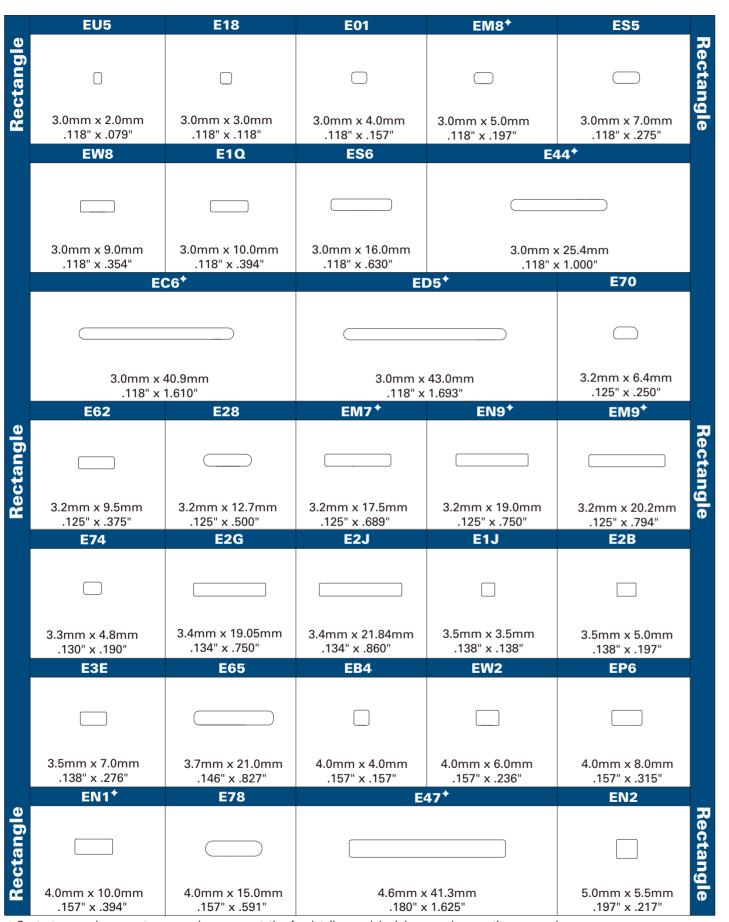


+ Contact your sales or customer service representative for details, special minimum order quantity may apply.

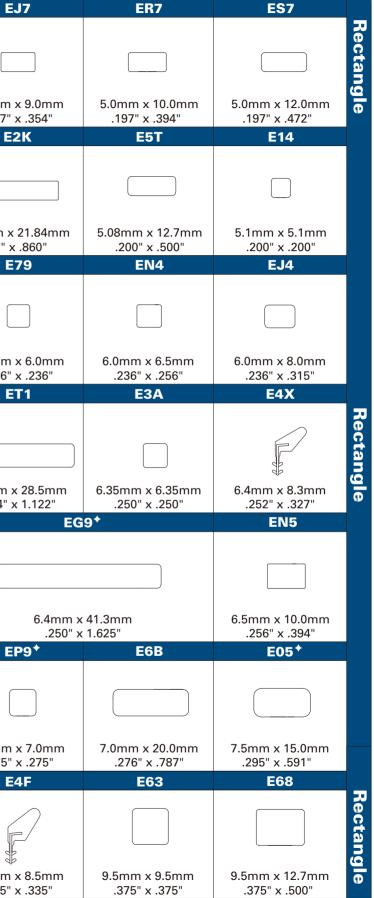
<b>Bectangle</b> 		
2 1.5mm x 10.0mm		
.059" x .390"	n 1.5mm x 14.0mm .059" x .551"	1.5mm x .059" :
EA8 <sup>+</sup>	E3L	E
		C
1.5mm x 27.0mr .059" x 1.063"	.070" x .250"	2.0mm .079"
E5C	EW9	E
		2 0
2.0mm x 5.08mr .079" x .200"	m 2.0mm x 6.0mm .079" x .236"	2.0mm .079"
E08	E24	E
<b>GCtangle</b> <b>Comm x 10.0mr</b> 2.0mr x 10.0mr		
2.0mm x 10.0mr		2.0mm >
.079" x .394"	.079" x .500" <b>E58</b>	.079"
EG7	EJO	
2.0mm x 19.0mr .079" x .750"	n 2.0mm x 21.0mm .079" x .827"	2.0mm x .079" ;
.079 x .750	E07 <sup>+</sup>	.075
.07	m x 41.3mm '9" x 1.625"	
E2F	E6G	E
2.3mm x 21.84mi		
.091" x .860"	m 2.5mm x 6.0mm .098" x .236"	2.5mm .098" or details, sp



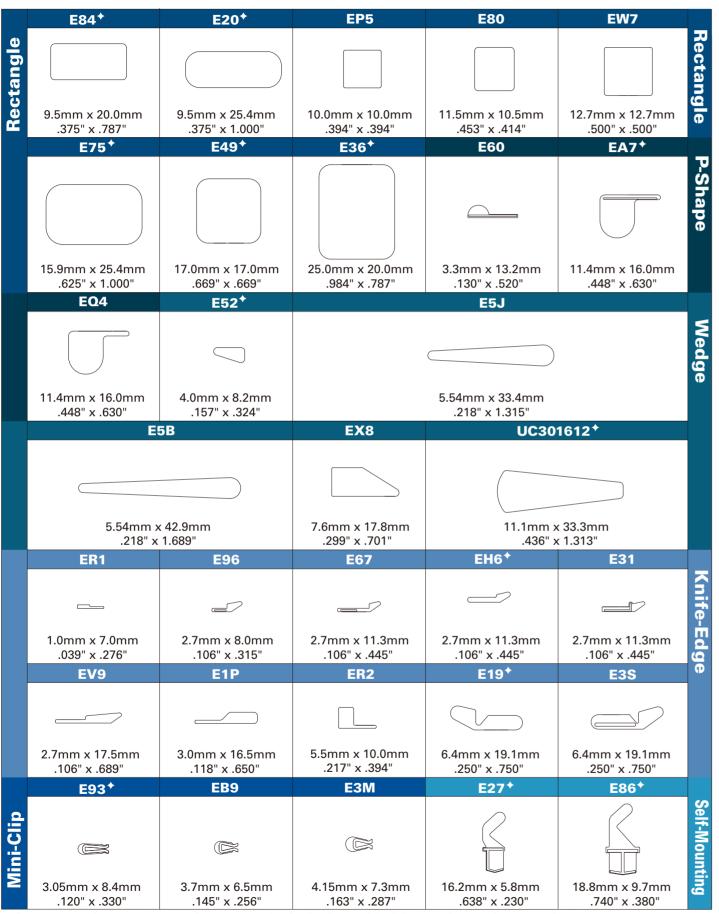
## **Profiles**



Betage 5.0mm x .197" x EP 5.0mm x .197" x EP 5.1mm x .200" x ES 6.0mm x .236" x E6 6.4mm x .250" x EP	E4D	E73	EJ7	ER7
stangle				
Red	5.0mm x 7.6mm .197" x .300"	5.0mm x 8.0mm .197" x .315"	5.0mm x 9.0mm .197" x .354"	5.0mm x 10.0mm .197" x .394"
	EP2	E2H	E2K	E5T
	5.0mm x 14.5mm	5.0mm x 19.05mm	5.0mm x 21.84mm	5.08mm x 12.7mm
	.197" x .571"	.197" x .750"	.197" x .860"	.200" x .500"
	EP8	EN3	E79	EN4
	5.1mm x 6.4mm .200" x .250"	5.5mm x 10.0mm .217" x .394"	6.0mm x 6.0mm .236" x .236"	6.0mm x 6.5mm .236" x .256"
	ES8	ES9	ET1	E3A
Recta	6.0mm x 25.4mm .236" x 1.000"	6.2mm x 22.0mm .244" x .866"	6.2mm x 28.5mm .244" x 1.122"	6.35mm x 6.35mm .250" x .250"
	Ecc	E25	EG	9*
	E00			
	6.4mm x 9.5mm	6.4mm x 12.7mm	6.4mm x	
	6.4mm x 9.5mm .250" x .375"	.250" x .500"	.250" x	1.625"
	6.4mm x 9.5mm			
	6.4mm x 9.5mm .250" x .375"	.250" x .500"	.250" x	1.625"
	6.4mm x 9.5mm .250" x .375" EP3 6.5mm x 14.5mm .256" x .571"	.250" x .500" E4E 6.6mm x 6.6mm .260" x .260"	.250" x EP9* 7.0mm x 7.0mm .275" x .275"	1.625"
	6.4mm x 9.5mm .250" x .375" EP3 6.5mm x 14.5mm	.250" x .500" E4E 6.6mm x 6.6mm	.250" x EP9 <sup>↓</sup>	1.625" E6B 7.0mm x 20.0mm
ectangle	6.4mm x 9.5mm .250" x .375" EP3 6.5mm x 14.5mm .256" x .571" EG8	.250" x .500" E4E 6.6mm x 6.6mm .260" x .260"	.250" x EP9* 7.0mm x 7.0mm .275" x .275"	1.625" E6B 7.0mm x 20.0mm .276" x .787"



## Profiles



+ Contact your sales or customer service representative for details, special minimum order quantity may apply.

	E1H	EU7	E3F	ET2	E1R	
				2		
ă	1.8mm x 4.6mm .071" x .181"	2.5mm x 7.6mm .098" x .300"	2.54mm x 10.0mm .100" x .394"	3.0mm x 8.0mm .118" x .315"	3.0mm x 10.1mm .118" x .398"	
	E1U	E3G	E3H	E1T	ER8	
	3.0mm x 15.0mm .118" x .591"	3.05mm x 10.2mm .120" x .402"	3.6mm x 12.7mm .142" x .500"	4.0mm x 15.0mm .157" x .591"	5.5mm x 15.0mm .217" x .591"	
	E6C	E1C+	ED2 <sup>+</sup>	E3P	E13+	
	J					
	3.3mm x 3.3mm .130" x .130"	3.3mm x 5.3mm .130" x .209"	5.0mm x 8.5mm .197" x .335"	5.3mm x 5.3mm .209" x .209"	5.5mm x 12.0mm .217" x .472"	
	E4Y	E5M	EW1	E1V	E5U	
	9.68mm x 24.0mm	⊂ 1.0mm x 2.5mm		1.2mm x 10.0mm	□ 1.5mm x 2.5mm	
	.381" x .945" E1W	.039" x .098" E17	.039" x .150" EY3	.047" x .394" ET6	.059" x .098" EY4	
-	EIW	EI/	ETS	EIO	ET4	4
			< 1.5mm x 6.0mm	 1.5mm x 6.4mm		
	.051" x .142"	.060" x .150"	.059" x .236"	.059" x .250"	.059" x .315"	
ŀ	EY5	EY2	EY6	E4L	EG6 <sup>+</sup>	
					0	
	1.5mm x 10.0mm .059" x .394"	1.5mm x 12.7mm .059" x .500"	1.5mm x 17.0mm .059" x .669"	1.78mm x 6.35mm .070" x .250"	1.8mm x 4.6mm .070" x .180"	
	E1F	E4K	E1Y	E5W	EK9	
D-Shape		$\sim$			$\sim$	
	1.8mm x 4.6mm .071" x .181"	1.8mm x 6.0mm .071" x .236"	2.0mm x 4.0mm .079" x .157"	2.0mm x 4.6mm .079" x .181"	2.0mm x 6.0mm .078" x .236"	

## **Profiles**

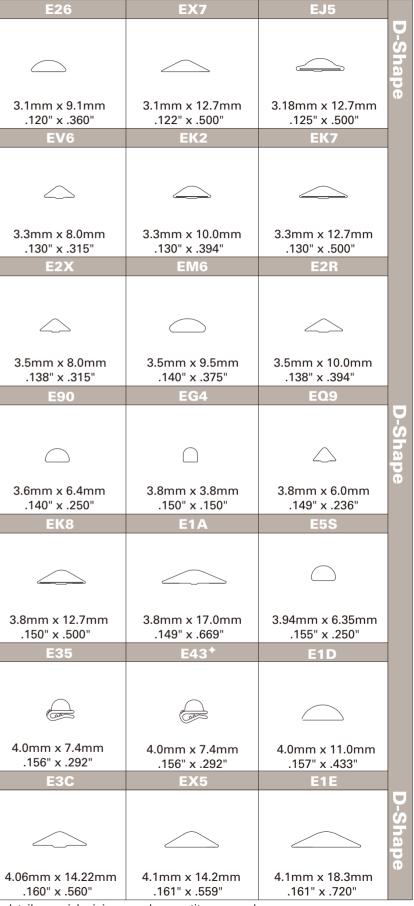
EA3

EA1

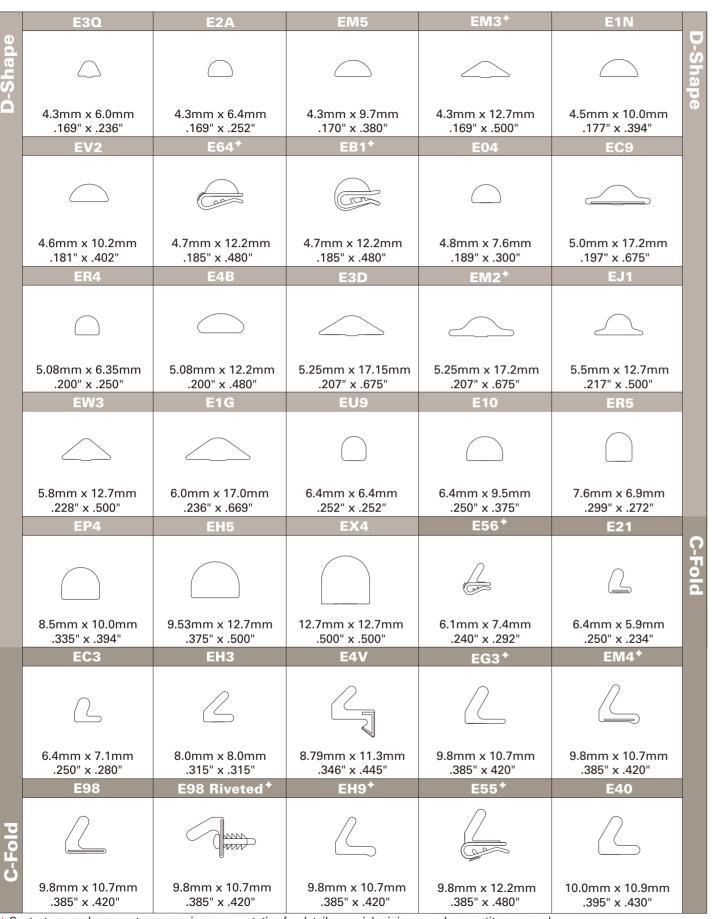
	ES3	EV3	EJ8	EK4	ED7	
D-Shape	 2.0mm x 6.0mm	2.0mm x 8.0mm	2.0mm x 10.0mm	2.0mm x 12.7mm	2.0mm x 12.7mm	D-Shape
	.079" x .236"	.079" x .315"	.079" x .394"	.079" x .500"	.080" x .500"	
	EY7	E51	EH2	E5R	E57	
	2.0mm x 17.0mm	2.0mm x 17.1mm	2.0mm x 17.2mm	□ 2.03mm x 2.03mm		
	.079" x .669"	.080" x .675"	.080" x .675"	.080" x .080"	.090" x .090"	
	E4H	E45	EQ6	EP1	EJ9	
		$\Box$	$\sim$			
	2.3mm x 3.8mm .090" x .150"	2.3mm x 3.9mm .090" x .155"	2.3mm x 6.0mm .090" x .236"	2.3mm x 8.0mm .090" x .315"	2.3mm x 10.0mm .090" x .394"	
-	EK5	EV8	ES4	ET9	EX6	
0	EKJ	EVO	E34	EIS	EXO	
<b>D-Shap</b>						)-Shape
	2.3mm x 12.7mm	2.3mm x 17.1mm	2.5mm x 6.4mm	2.5mm x 7.6mm	2.5mm x 10.0mm	
	.090" x .500"	.091" x .673" EU8	.100" x .250"	.100" x .300"	.100" x .394"	-
-	EQ7	EUð	EK1	EK6	EY8	-
	 2.7mm x 6.0mm	2.7mm x 8.0mm	2.7mm x 10.0mm	2.7mm x 12.7mm	2.7mm x 17.0mm	
	.106" x .236"	.106" x .315"	.106" x .394"	.106" x .500"	.106" x .669"	
_	E4J	E87	EY1	E2S	E2M	
	$\bigcirc$			$\bigtriangleup$		
	2.74mm x 3.8mm	2.8mm x 9.7mm	2.9mm x 2.7mm	3.0mm x 6.0mm	3.0mm x 8.0mm	
	.108" x .150"	.110" x .380" E2P	.114" x .106"	.118" x .236" E2U	.118" x .315" E2V	
0-Shape	E2T		ER9			D-Shap
	3.0mm x 8.0mm .118" x .315"	3.0mm x 10.0mm .118" x .394"	3.0mm x 12.7mm .118" x .500"	3.0mm x 12.7mm .118" x .500"	3.0mm x 17.0mm .118" x .669"	Φ

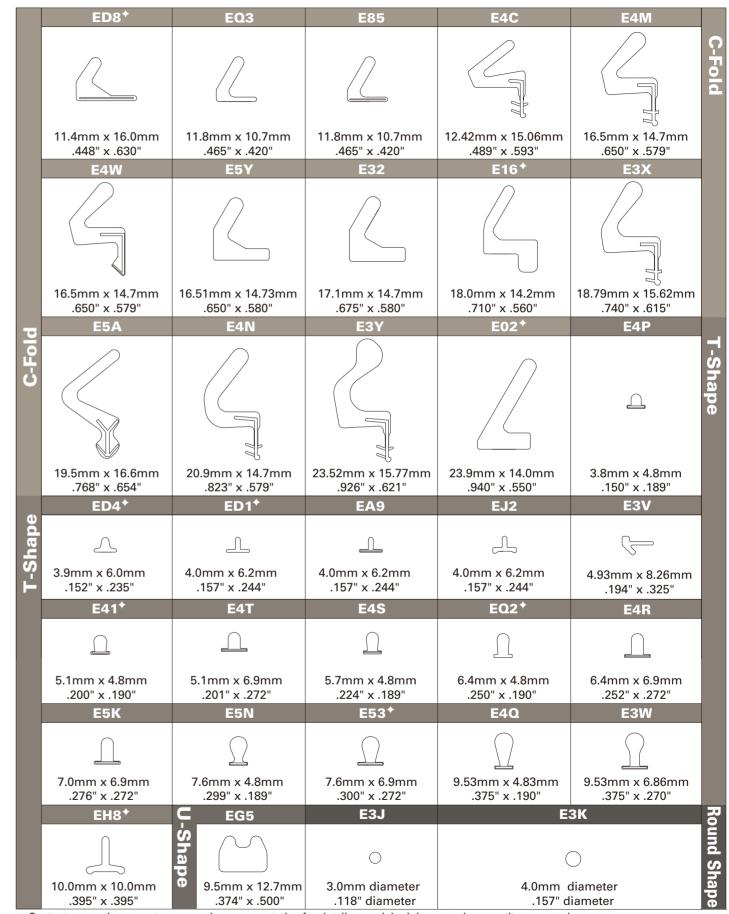
 $\bigcirc$  $\bigcirc$ 3.1mm x 3.8mm 3.1mm x 6.4mm .120" x .150" .120" x .250" EV1 EQ8  $\bigcap$  $\bigtriangleup$ 3.3mm x 4.8mm 3.3mm x 6.0mm .130" x .189" .130" x .236" EY9 E2W  $\bigtriangleup$ 3.3mm x 17.0mm 3.5mm x 6.0mm .130" x .669" .138" x .236" E2Y E3B ר אין 3.5mm x 12.7mm 3.5mm x 17.0mm .138" x .500" .138" x .669" EV7 EK3  $\angle$ 3.8mm x 8.0mm 3.8mm x 10.0mm .150" x .315" .150" x .394" E4A EA5  $\square$ 4.0mm x 3.8mm 4.0mm x 6.0mm .156" x .236" .157" x .150" EH1 EH7 4.0mm x 12.7mm 4.0mm x 12.7mm .157" x .500" .157" x .500"

+ Contact your sales or customer service representative for details, special minimum order quantity may apply.



## Profiles





+ Contact your sales or customer service representative for details, special minimum order quantity may apply.

Standard	Pressure	- Sensitive	Adhesive	(PSA)
----------	----------	-------------	----------	-------

SEM gaskets come with adhesive that is made to order. This chart contains the standard PSA widths used on gaskets in the Profile Selection Guide. Other PSA widths may be requested. The Wide Release Liner<sup>™</sup> tape option is also available for many profiles for "pick-n-place" assembly. For information on PSA options, please contact your SEM representative.

Self-Mounting gaskets are designed to be applied without adhesives. Adhesive mounting is an option on these profiles.

For I/O information, please call your SEM representative.

		PSA W	VIDTH				PS	A WI	DTH
Inches	mn	n Inche	es [mm]	Part	Inche	es	mm	Inches	[mm]
le				Rec	tangle				
.118 x .1	57 3.0 x	4.0 .070	) [1.8]	EC5	.039 ×	(1.627 1.	0 x 41.3	.250	[6.4]
.039 x .1	57 1.0 x			EC6	.118 x	(1.610 3.	0 x 40.9	.100	[2.5]
.295 x .59		15.0 .250	) [6.4]	EC7	.079 ×	c.295 2.	0 x 7.5	.125	[3.2]
.039 x .2	76 1.0 x	7.0 .125	5 [3.2]	ED3	.079 ×		0 x 17.5	.188	[4.8]
.079 x 1.0	625 2.0 x	41.3 .125	5 [3.2]	ED5	.118 x	(1.693 3.	0 x 43.0	.070	[1.8]
.079 x .3	94 2.0 x	10.0 .125		ED9	.059 ×	c.197 1.	5 x 5.0	.100	[2.5]
.079 x 1.		28.6 .125	5 [3.2]	EG2	.059 ×	c.390 1.	5 x 10.0	.125	[3.2]
.039 x .3		10.0 .125	5 [3.2]	EG7	.079 ×	c.750 2.	0 x 19.0	.070	[1.8]
.039 x .1	97 1.0 x	5.0 .100	) [2.5]	EG8	.315 x	c.315 8.	0 x 8.0	.125	[3.2]
.200 x .20			) [2.5]	EG9	.250 x	c 1.625 6.	4 x 41.3	.125	[3.2]
.118 x .1	8 3.0 x	3.0 .070	) [1.8]	EH4	.079 ×	c.866 2.	0 x 22.0	.250	[6.4]
.375 x 1.0		25.4 .125	5 [3.2]	EJ4	.236 x	c.315 6.	0 x 8.0	.125	[3.2]
.079 x .50	00 2.0 x	12.7 .250	) [6.4]	EJ6	.039 x	c.591 1.	0 x 15.0	.250	[6.4]
.250 x .50	00 6.4 x	12.7 .250	) [6.4]	EJ7	.197 x	c.354 5.	0 x 9.0	.125	[3.2]
.125 x .50	00 3.2 x			EM7	.125 x	c.689 3.	2 x 17.5	.125	[3.2]
.039 x 1.0	000 1.0 x	25.4 .250	) [6.4]	EM8	.118 x	c.197 3.	0 x 5.0	.100	[2.5]
.079 x 2.3	362 2.0 x	60.0 .125	5 [3.2]	EM9	.125 x	c.794 3.	2 x 20.2	.100	[3.2]
.984 x .78	37 25.0 >	k 20.0 .313	8 [8.0]	EN1	.157 x	.394 4.	0 x 10.0	.125	[3.2]
.039 x .1	8 1.0 x	3.0 .070	) [1.8]	EN2	.197 x	c.217 5.	0 x 5.5	.100	[2.5]
.390 x .7	0 1.0 x	18.0 .125	5 [3.2]	EN3	.217 x	.394 5.	5 x10.0	.125	[3.2]
.118 x 1.0			) [6.4]	EN4	.236 x	c.256 6.	0 x 6.5	.100	[2.5]
.180 x 1.0	625 4.6 x	41.3 .250	) [6.4]	EN5	.256 x	c.394 6.	5 x 10.0	.125	[3.2]
.669 x .6	39	k 17.0 .312	2 [7.9]	EN6	.059 x	c.150 1.	5 x 3.8	.070	[1.8]
.079 x .8	27 2.0 x	21.0 .125	5 [3.2]	EN8	.079 x	.710 2.	0 x 18.0	.125	[3.2]
.020 x .1	0.5 x	5.0 .100	) [2.5]	EN9	.125 x	.750 3.	2 x 19.0	.100	[2.5]
.059 x .2	75 1.5 x	7.0 .125	5 [3.2]	EP2	.197 x	.571 5.	0 x 14.5	.250	[6.4]
.125 x .3	75 3.2 x	9.5 .188	8 [4.8]	EP3	.256 x	c.571 6.	5 x 14.5	.250	[6.4]
.375 x .3	75 9.5 x	9.5 .188	8 [4.8]	EP5	.394 x	(.394 10	0.0 x 10.0	.250	[6.4]
.146 x .8	27 3.7 x	21.0 .125	5 [3.2]	EP6	.157 x	(.315 4.	0 x 8.0	.125	[3.2]
.250 x .3	75 6.4 x	9.5 .188	3 [4.8]	EP8	.200 x	.250 5.	1 x 6.4	.125	[3.2]
.375 x .50	00 9.5 x	12.7 .250	) [6.4]	EP9	.275 x	.275 7.	0 x 7.0	.125	[3.2]
.125 x .2	50 3.2 x	6.4 .100	) [2.5]	EQ1	.125 x	.375 3.	2 x 9.5	.188	[4.8]
.197 x .3			) [2.5]	ER3	.059 x	.125 1.	5 x 3.18	.070	[1.8]
.130 x .19			) [2.5]	ER6	.098 x	.374 2.	5 x 9.5	.188	[4.8]
.625 x 1.0	00 15.9 >	x 25.4 .250	) [6.4]	ER7	.197 x	.394 5.	0 x 10.0	.188	[4.8]
.079 x .2			5 [3.2]	ES1	.020 ×	.236 0.	5 x 6.0	.100	[2.5]
.157 x .5	91 4.0 x	15.0 .250	) [6.4]	ES2	.020 ×	c.669 0.	5 x 17.0	.125	[3.2]
.236 x .23			5 [3.2]	ES5	.118 x	.275 3.	0 x 7.0	.125	[3.2]
.453 x .4	4 11.5 >	x 10.5 .188	8 [4.8]	ES6	.118 x	.630 3.	0 x 16.0	.250	[6.4]
.079 x .1	57 2.0 x			ES7	.197 x	.472 5.	0 x 12.0	.250	[6.4]
.020 x .1	57 0.5 x	4.0 .070		ES8			0 x 25.4	.500	[12.7]
.375 x .78				ES9	.244 x		2 x 22.0	.500	[12.7]
.020 x .2	76 0.5 x			ET1	.244 x	(1.122 6.	2 x 28.5	.500	[12.7]
.020 x .3				ET3	.039 ×	.433 1.	0 x 11.0	.250	[6.4]
.049 x .3	5 1.2 x			ET4	.039 ×	.535 1.	0 x 13.6	.250	[6.4]
.039 x .5				ET5	.039 x		0 x 16.0	.100	[2.5]
.059 x 1.0				ET7	.059 ×		5 x 16.2	.250	[6.4]
.157 x .1				ET8	.020 ×		5 x 22.5	.250	[6.4]
.059 x .5				EU1	.020 ×		5 x 15.0	.250	[6.4]

		F	PSA WIDTH			P	<b>SA WIDTH</b>
Part	Inches	mm	Inches [mm]	Part	Inches	mm	Inches [mm]
EU2	.079 x .098	2.0 x 2.5	.070 [1.8]	E2G	.134 x .750	3.4 x 19.05	.125 [3.2]
EU4	.079 x .118	2.0 x 3.0	.070 [1.8]	E2H	.197 x .750	5.0 x 19.05	.125 [3.2]
EU5	.118 x .079	3.0 x 2.0	.060 [1.5]	E2J	.134 x .860	3.4 x 21.84	.125 [3.2]
EW2	.157 x .236	4.0 x 6.0	.125 [3.2]	E2K	.197 x .860	5.0 x 21.84	.125 [3.2]
EW4	.059 x 1.000	1.5 x 25.4	.188 [4.8]	E2L	.079 x .602	2.0 x 15.3	.118 [3.0]
EW5	.028 x .276	0.7 x 7.0	.100 [2.5]	E2N	.079 x .315	2.0 x 8.0	.126 [3.2]
EW6 EW7	.051 x .090	1.3 x 2.3 12.7 x 12.7	.060 [1.5]	E3A E3E	.250 x .250 .138 x .276	6.35 x 6.35 3.5 x 7.0	.125 [3.2]
EW8	.500 x .500 .118 x .354	3.0 x 9.0	.188 [4.8] .160 [4.1]	E3E E3L	.138 x .276 .070 x .250	3.5 x 7.0 1.78 x 6.35	.125 [3.2] .125 [3.2]
EW9	.079 x .236	2.0 x 6.0	.100 [4.1]	E3L E4D	.197 x .300	5.0 x 7.6	.125 [3.2]
EX3	.079 x .230	1.0 x 22.8	.250 [6.4]	E4E	.260 x .260	6.6 x 6.6	self-mounting
E1B	.031 x .236	0.8 x 6.0	.125 [3.2]	E4F	.335 x .335	8.5 x 8.5	self-mounting
E1J	.138 x .138	3.5 x 3.5	.070 [1.8]	E4U	.100 x .260	2.54 x 6.6	self-mounting
E1K	.039 x .902	1.0 x 22.9	.500 [12.7]	E4X	.252 x .327	6.4 x 8.3	self-mounting
E1M	.059 x .752	1.5 x 19.1	.070 [1.8]	E5C	.079 x .200	2.0 x 5.08	.100 [2.5]
E1Q	.118 x .394	3.0 x10.0	.188 [4.8]	E5G	.098 x .500	2.5 x 12.7	.250 [6.4]
E2B	.138 x .197	3.5 x 5.0	.100 [2.5]	E5T	.200 x .500	5.08 x 12.7	.250 [6.4]
E2C	.039 x .750	1.0 x 19.05	.125 [3.2]	E5V	.315 x .394	8.0 x 10.0	.189 [4.8]
E2D	.091 x .750	2.3 x 19.05	.125 [3.2]	E6B	.276 x .787	7.0 x 20.0	.250 [6.4]
E2E	.039 x .860	1.0 x 21.84	.125 [3.2]	E6G	.098 x .236	2.5 x 6.0	.126 [3.2]
E2F	.091 x .860	2.3 x 21.84	.125 [3.2]	E6H	.039 x .315	1.0 x 8.0	.126 [3.2]
C-Fold				C-Fold	1		
E02	.940 x .550	23.9 x 14.0	.250 [6.4]	EH3	.315 x .315	8.0 x 8.0	.125 [3.2]
E16	.710 x .560	18.0 x 14.2	.188 [4.8]	EH9	.385 x .420	9.8 x 10.7	.188 [4.8]
E21	.250 x .234	6.4 x 5.9	.125 [3.2]	EM4	.385 x .420	9.8 x 10.7	.188 [4.8]
E32	.675 x .580	17.1 x 14.7	.250 [6.4]	EQ3	.465 x .420	11.8 x 10.7	.188 [4.8]
E40	.395 x .430	10.0 x 10.9	.188 [4.8]	E3X	.740 x .615	18.79 x 15.62	self-mounting
E55	.385 x .480	9.8 x 12.2	self-mounting	E3Y	.926 x .621	23.52 x 15.77	self-mounting
E56	.240 x .292	6.1 x 7.4	self-mounting	E4C	.489 x .593	12.42 x 15.06	self-mounting
E85	.465 x .420	11.8 x 10.7	.188 [4.8]	E4M	.650 x .579	16.5 x 14.7	self-mounting
E98	.385 x .420	9.8 x 10.7	.188 [4.8]	E4N	.823 x .579	20.9 x 14.7	self-mounting
E98+Rivet		9.8 x 10.7	rivet	E4V	.346 x .445	8.79 x 11.3	self-mounting
EC3 ED8	.250 x .280	6.4 x 7.1	.125 [3.2]	E4W	.650 x .579	16.5 x 14.7	self-mounting
ED8 EG3	.448 x .630 .385 x .420	11.4 x 16.0 9.8 x 10.7	.250 [6.4] .188 [4.8]	E5A E5Y	.768 x .654 .650 x .580	19.5 x 16.6 16.51 x 14.73	self-mounting .250 [6.4]
D-Shape	•			D-Sha	pe		
E04	.189 x .300	4.8 x 7.6	.125 [3.2]	EJ1	.217 x .500	5.5 x 12.7	.100 [2.5]
E10	.250 x .375	6.4 x 9.5	.188 [4.8]	EJ5	.125 x .500	3.18 x 12.7	.100 [2.5]
E17	.060 x .150	1.5 x 3.8	.070 [1.8]	EJ8	.079 x .394	2.0 x 10.0	.100 [2.5]
E26	.120 x .360	3.1 x 9.1	.188 [4.8]	EJ9	.090 x .394	2.3 x 10.0	.100 [2.5]
E35	.156 x .292	4.0 x 7.4	self-mounting	EK1	.106 x .394	2.7 x 10.0	.100 [2.5]
E43	.156 x .292	4.0 x 7.4	self-mounting	EK2	.130 x .394	3.3 x 10.0	.100 [2.5]
E45	.090 x .155	2.3 x 3.9	.070 [1.8]	EK3	.150 x .394	3.8 x 10.0	.100 [2.5]
E51	.080 x .675	2.0 x 17.1	.160 [4.1]	EK4	.079 x .500	2.0 x 12.7	.100 [2.5]
E57	.090 x .090	2.3 x 2.3	.050 [1.3]	EK5	.090 x .500	2.3 x 12.7	.100 [2.5]
E64	.185 x .480	4.7 x 12.2	self-mounting	EK6	.106 x .500	2.7 x 12.7	.100 [2.5]
E87	.110 x .380	2.8 x 9.7	.188 [4.8]	EK7	.130 x .500	3.3 x 12.7	.100 [2.5]
E90	.140 x .250	3.6 x 6.4	.125 [3.2]	EK8	.150 x .500	3.8 x 12.7	.100 [2.5]
EA1	.120 x .250	3.1 x 6.4	.125 [3.2]	EK9	.078 x .236	2.0 x 6.0	.050 [1.3]
EA3	.120 x .150	3.1 x 3.8	.070 [1.8]	EM2	.207 x .675	5.25 x 17.2	.160 [4.1]
EA5	.156 x .236	4.0 x 6.0	.125 [3.2]	EM3	.169 x .500	4.3 x 12.7	.100 [2.5]
EB1	.185 x .480	4.7 x 12.2	self-mounting	EM5	.170 x .380	4.3 x 9.7	.188 [4.8]
EC9	.197 x .675	5.0 x 17.2	.160 [4.1]	EM6	.140 x .375	3.5 x 9.5	.188 [4.8]
ED7	.080 x .500	2.0 x 12.7	.125 [3.2]	EP1	.090 x .315	2.3 x 8.0	.070 [1.8]
EG4	.150 x .150 .070 x .180	3.8 x 3.8 1.8 x 4.6	.070 [1.8] .100 [2.5]	EP4	.335 x .394 .090 x .236	8.5 x 10.0 2.3 x 6.0	.188 [4.8] .050 [1.3]
EG6	.070 x .180 .157 x .500	4.0 x 12.7	.100 [2.5]	EQ6	.106 x .236	2.3 x 6.0 2.7 x 6.0	.050 [1.3] .050 [1.3]
EH1	.080 x .675	2.0 x 17.2	.160 [4.1]	EQ7 EQ8	.130 x .236	3.3 x 6.0	.050 [1.3]
EH2 EH5	.375 x .500	9.53 x 12.7	.250 [6.4]	EQ8	.149 x .236	3.8 x 6.0	.050 [1.3]
EH5 EH7	.157 x .500	4.0 x 12.7	.100 [2.5]	EC9 ER4	.200 x .250	5.08 x 6.35	.125 [3.2]
/				EN4		0.00 / 0.00	

## **Finishing Information**

## **Finishing Information**

			PSA WIDTH			F	PSA WIDTH
Part	Inches	mm	Inches [mm]	Part	Inches	mm	Inches [mm]
ER5	.299 x .272	7.6 x 6.9	.125 [3.2]	E1F	.071 x .181	1.8 x 4.6	.070 [1.8]
ER9	.118 x .500	3.0 x 12.7	.160 [4.1]	E1G	.236 x .669	6.0 x 17.0	.161 [4.1]
ES3	.079 x .236	2.0 x 6.0	.125 [3.2]	E1N	.177 x .394	4.5 x 10.0	.188 [4.8]
ES4	.100 x .250	2.5 x 6.4	.125 [3.2]	E1V	.047 x .394	1.2 x 10.0	.100 [2.5]
ET6	.059 x .250	1.5 x 6.4	.125 [3.2]	E1W	.051 x .142	1.3 x 3.6	.075 [1.9]
ET9	.100 x .300	2.5 x 7.6	.070 [1.8]	E1Y	.079 x .157	2.0 x 4.0	.071 [1.8]
EU8	.106 x .315	2.7 x 8.0	.070 [1.8]	E2A	.169 x .252	4.3 x 6.4	.125 [3.2]
EU9	.252 x .252	6.4 x 6.4	.125 [3.2]	E2M	.118 x .315	3.0 x 8.0	.126 [3.2]
EV1	.130 x .189	3.3 x 4.8	.070 [1.8]	E2P	.118 x .394	3.0 x 10.0	.100 [2.5]
EV2	.181 x .402	4.6 x 10.2	.188 [4.8]	E2R	.138 x .394	3.5 x 10.0	.100 [2.5]
EV3	.079 x .315	2.0 x 8.0	.070 [1.8]	E2S	.118 x .236	3.0 x 6.0	.050 [1.3]
EV6	.130 x .315	3.3 x 8.0	.070 [1.8]	E2T	.118 x .315	3.0 x 8.0	.070 [1.8]
EV7	.150 x .315	3.8 x 8.0	.070 [1.8]	E2U	.118 x .500	3.0 x 12.7	.100 [2.5]
EV8	.091 x .673	2.3 x 17.1	.160 [4.1]	E2V	.118 x .669	3.0 x 17.0	.160 [4.1]
EW1	.039 x .150	1.0 x 3.8	.070 [1.8]	E2W	.138 x .236	3.5 x 6.0	.050 [1.3]
EW3	.228 x .500	5.8 x 12.7	.100 [2.5]	E2X	.138 x .315	3.5 x 8.0	.070 [1.8]
EX4	.500 x .500	12.7 x 12.7	.250 [6.4]	E2Y	.138 x .500	3.5 x 12.7	.100 [2.5]
EX5	.161 x .559	4.1 x 14.2	.100 [2.5]	E3B	.138 x .669	3.5 x 17.0	.160 [4.1]
EX6	.100 x .394	2.5 x 10.0	.100 [2.5]	E3C	.160 x .560	4.06 x 14.22	.100 [2.5]
EX7	.122 x .500	3.1 x 12.7	.100 [2.5]	E3D	.207 x .675	5.25 x 17.15	.161 [4.1]
EY1	.114 x .106	2.9 x 2.7	.050 [1.3]	E3Q	.169 x .236	4.3 x 6.0	.051 [1.3]
EY2	.059 x .500	1.5 x 12.7	.100 [2.5]	E4A	.157 x .150	4.0 x 3.8	.070 [1.8]
EY3	.059 x .236	1.5 x 6.0	.050 [1.3]	E4B	.200 x .480	5.08 x 12.2	.250 [6.4]
EY4	.059 x .315	1.5 x 8.0	.070 [1.8]	E4H	.090 x .150	2.3 x 3.8	.070 [1.8]
EY5	.059 x .394	1.5 x 10.0	.098 [2.5]	E4J	.108 x .150	2.74 x 3.8	.070 [1.8]
EY6	.059 x .669	1.5 x 17.0	.160 [4.1]	E4K	.071 x .236	1.8 x 6.0	.050 [1.3]
EY7	.079 x .669	2.0 x 17.0	.160 [4.1]	E4L	.070 x .250	1.78 x 6.35	.126 [3.2]
EY8	.106 x .669	2.7 x 17.0	.160 [4.1]	E5M	.039 x .098	1.0 x 2.5	.051 [1.3]
EY9	.130 x .669	3.3 x 17.0	.160 [4.1]	E5R	.080 x .080	2.03 x 2.03	.051 [1.3]
E1A	.149 x .669	3.8 x 17.0	.160 [4.1]	E5S	.155 x .250	3.94 x 6.35	.125 [3.2]
E1D	.157 x .433	4.0 x 11.0	.188 [4.8]	E5U	.059 x .098	1.5 x 2.5	.071 [1.8]
E1E	.161 x .720	4.1 x 18.3	.188 [4.8]	E5W	.079 x .181	2.0 x 4.6	.098 [2.5]
T-Shap	pe			T-Shaj	pe		
E41	.200 x .190	5.1 x 4.8	.125 [3.2]	E3W	.375 x .270	9.53 x 6.86	.188 [4.8]
E53	.300 x .272	7.6 x 6.9	.125 [3.2]	E4P	.150 x .189	3.8 x 4.8	self-mounting
EA9	.157 x .244	4.0 x 6.2	.125 [3.2]	E4Q	.375 x .190	9.53 x 4.83	self-mounting
ED1	.157 x .244	4.0 x 6.2	.125 [3.2]	E4R	.252 x .272	6.4 x 6.9	self-mounting
EQ2	.250 x .190	6.4 x 4.8	.100 [2.5]	E4S	.224 x .189	5.7 x 4.8	self-mounting
ED4	.152 x .235	3.9 x 6.0	.125 [3.2]	E4T	.201 x .272	5.1 x 6.9	self-mounting
EH8	.395 x .395	10.0 x 10.0	.188 [4.8]	E5K	.276 x .272	7.0 x 6.9	self-mounting
EJ2	.157 x .244	4.0 x 6.2	.100 [2.5]	E5N	.299 x .189	7.6 x 4.8	self-mounting
E3V	.194 x .325	4.93 x 8.26	.126 [3.2]				
Veife	Educ			Veite	Educ		

Knife-	Edge				Knife	Edge			
E19	.250 x .750	6.4 x 19.1	.250	[6.4]	ER1	.039 x .276	1.0 x 7.0	.125	[3.2]
E31	.106 x .445	2.7 x 11.3	.188	[4.8]	ER2	.217 x .394	5.5 x 10.0	.188	[4.8]
E67	.106 x .445	2.7 x 11.3	.250	[6.4]	EV9	.106 x .689	2.7 x 17.5	.250	[6.4]
E96	.106 x .315	2.7 x 8.0	.100	[2.5]	E1P	.118 x .650	3.0 x 16.5	.188	[4.8]
EH6	.106 x .445	2.7 x 11.3	.250	[6.4]	E3S	.250 x .750	6.4 x 19.1	none	

P-Sha	ре				Self-N	lounting
E60 EA7 EQ4	.130 x .520 .448 x .630 .448 x .630	3.3 x 13.2 11.4 x 16.0 11.4 x 16.0	.312	[6.4] [7.9] [12.7]	E27 E86	.638 x .23 .740 x .38

Mini-C	Clip		
E93	.120 x .330	3.05 x 8.4	self-mounting
EB9	.145 x .256	3.7 x 6.5	self-mounting
E3M	.163 x .287	4.15 x 7.3	self-mounting

U-Shape	)			
EG5	.374 x .500	9.5 x 12.7	.250	[6.4]

16.2 x 5.8 18.8 x 9.7

self-mounting

self-mounting

.638 x .230 .740 x .380

ER8	.217 x .591	5.5 x 15.0	.160 [4.1]
ET2	.118 x .315	3.0 x 8.0	.125 [3.2]
EU7	.098 x .300	2.5 x 7.6	.070 [1.8]
E1H	.071 x .181	1.8 x 4.6	.050 [1.3]
E1R	.118 x .398	3.0 x 10.1	.079 [2.0]
Wdege			
Wdege E52	.157 x .324	4.0 x 8.2	.125 [3.2]
E52	.157 x .324 .436 x 1.313	4.0 x 8.2 11.1 x 33.3	.125 [3.2] none
E52			
E52 UC301612	.436 x 1.313	11.1 x 33.3	none

L-Sha	pe			
E13	.217 x .472	5.5 x 12.0	.188	[4.8]
ED2	.197 x .335	5.0 x 8.5	.160	[4.1]
E1C	.130 x .209	3.3 x 5.3	.100	[2.5]
E3P	.209 x .209	5.3 x 5.3	.100	[2.5]
E4Y	.381 x .945	9.68 x 24.0	.375	[9.5]
E6C	.130 x .130	3.3 x 3.3	.048	[1.2]

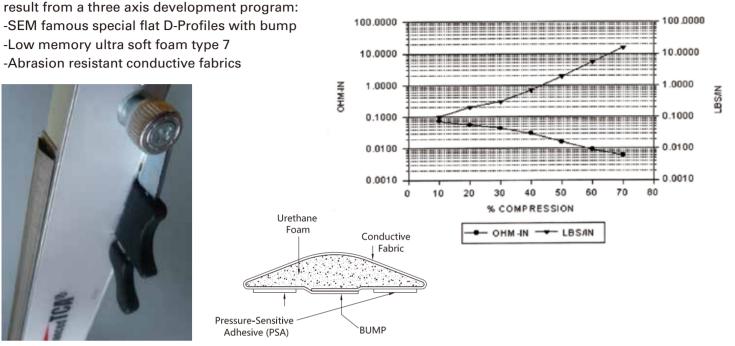
I

Bell S	hape			
E1T E1U E3F E3G E3H	.157 x .591 .118 x .591 .100 x .394 .120 x .402 .142 x .500	4.0 x 15.0 3.0 x 15.0 2.54 x 10.0 3.05 x 10.2 3.6 x 12.7	.125 .125 .098 .071 .098	[3.2] [3.2] [2.5] [1.8] [2.5]
Round	l Shape			

E3J	.118 dia	3.0 dia	none
E3K	.157 dia	4.0 dia	none

## **DynaShear / DynaGreen®**

Schlegel Electronic Materials (SEM) introduces **DynaShear** and **DynaGreen®** an innovative EMI shielding gasket family for the shielding of modules in card/cages environment that is able to offer superior features over metal fingerstocks and current Fabric Over Foam gaskets. **DynaShear** and **DynaGreen**® utilize the bump technology that



Both programs **DynaShear** and **DynaGreen**<sup>®</sup> are supplied with a flammability UL94-V0 rating but **DynaGreen**<sup>®</sup> utilizes a special SEM's formulation for the retardants making that series Halogen Free according to IEC 61249-2-21 (900 ppm max. bromine, 900 ppm max chlorine max. with a total of max. 1500 ppm). DynaGreen® is supplied with a special blue liner with a clear printed identification.

Height Width	1.5mm	2.0mm	2.3mm	2.7mm	3.0mm	3.3mm	3.5mm	3.8mm
6mm	EY37n2Zxxxx(HF)	EK97n2Zxxxx(HF)	EQ67n2Zxxxx(HF)	EQ77n2Zxxxx(HF)	E2S7n2Zxxxx(HF)	EQ87n2Zxxxx(HF)	E2W7n2Zxxxx(HF)	EQ97n2Zxxxx(HF)
8mm	EY47n2Zxxxx(HF)	EV37n2Zxxxx(HF)	EP17n2Zxxxx(HF)	EU87n2Zxxxx(HF)	E2T7n2Zxxxx(HF)	EV67n2Zxxxx(HF)	E2X7n2Zxxxx(HF)	EV77n2Zxxxx(HF)
10mm	EY57n2Zxxxx(HF)	EJ87n2Zxxxx(HF)	EJ97n2Zxxxx(HF)	EK17n2Zxxxx(HF)	E2P7n2Zxxxx(HF)	EK27n2Zxxxx(HF)	E2R7n2Zxxxx(HF)	EK37n2Zxxxx(HF)
12.7mm	EY27n2Zxxxx(HF)	EK47n2Zxxxx(HF)	EK57n2Zxxxx(HF)	EK67n2Zxxxx(HF)	E2U7n2Zxxxx(HF)	EK77n2Zxxxx(HF)	E2Y7n2Zxxxx(HF)	EK87n2Zxxxx(HF)
17mm	EY67n2Zxxxx(HF)	EY77n2Zxxxx(HF)	EV87n2Zxxxx(HF)	EY87n2Zxxxx(HF)	E2V7n2Zxxxx(HF)	EY97n2Zxxxx(HF)	E3B7n2Zxxxx(HF)	E1A7n2Zxxxx(HF)

n: specifies the fabric type (3: NiCu-C70 and 4: NiCu-C12). **xxxx:** specifies the length in the form of xx.xx". HF: specifies Halogen Free. DynaGreen® has suffix "HF". Standard parts supplied with wide release liner and 2 strips of adhesive. Height given for untapped and uncompressed parts.

DynaShear / DynaGreen<sup>®</sup>: Technical Features

**Compression force:** 0.70 lbs.-inch at 40% compression (\*) Contact resistance: 0.012 Ohms-inch at 40% compression (\*) **Compression set:** 15.4% when compressed 50% for 22 hrs. at 70°C (\*) Recommended compression for max. shielding: See table in the "gasket selection" section. Abrasion resistance: No change in surface resistivity 1,000 cycles (NiCu-C70) General Service Temperature: -40°C (-40°F), 70°C (158°F) Flammability: UL94-V0 certified (under the component program of Underwriters Laboratories Inc. in specified claddings and thicknesses)

Shielding Effectiveness: 96 dB (average) 20 MHz-10 GHz - Mil DTL 83528 C (NiCu-C70) 3M Adhesive 90° peel strength on stainless steel: 128/142 Oz./in after 72 hours - ASTM D3330 (\*): measured on EJ9732ZXXXX

## DynaShear / DynaGreen<sup>®</sup>: Gasket selection

These series of D-shape gaskets are characterized by the presence of a bump at the bottom surface so to preserve a substantial shielding effectiveness even when compression is low. RF measurement shows that below 20% and down to almost 0% compression, Shielding Effectiveness is about the value measured at 20% compression. The thickness of the bump is typically 0.3 mm. The specific adhesive used on this series has been selected for its high shear strength and has a nominal thickness of 0.17 mm.

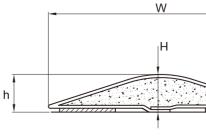
The dimensions provided in this catalog are the dimensions for the parts un-taped and in an uncompressed state. When the part is taped, the bump is slightly compressed. Therefore, the following values and table are provided to help the selection of the right profile versus the nominal gap between modules. The compression values for the gasket (% from free height) are given in black and the corresponding values of the gap between modules are provided in blue (in mm).

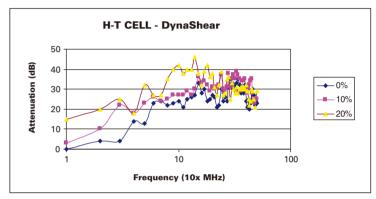
**Minimum Compression (mC):** mC = 1%

**Maximum Gap (MG):** MG (mm) = 0.99 \* h with h (mm) = [(H - 0.3) + 0.17]. Nominal Compression (NC): SEM recommend to compress 50% of the free height h NC (%) =50

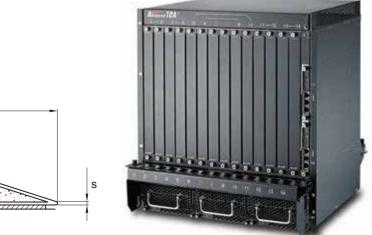
Nominal Gap (NG): NG (mm) = h \* 0.5

Max. Compression (MC): MC (%) =  $(h-S)/h^*$  100 with S(mm)= s + 0.17 Minimum Gap (mG) : mG = S





Attenuation as a function of the compression measured on EJ9732ZXXXX.



MG, NG, mG

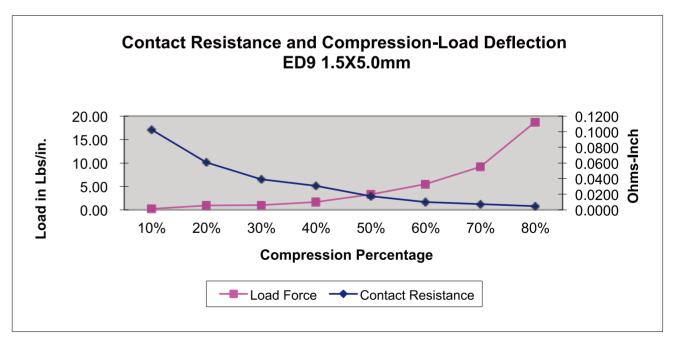
## DynaShear / DynaGreen® Profile Selection Versus Nominal Gap

DynaSr	iear / Dy	naGreen®	Profile	Selection	versus	Nominal	Gap			
P/N	H(mm)	W(mm)	s(mm)	h(mm)	mC(%)	MG(mm)	NC(%)	NG(mm)	MC(%)	mG(mm)
EY3	1.5	6.0	0.36	1.37	1	1.36	50	0.69	61.31	0.53
EY4	1.5	8.0	0.39	1.37	1	1.36	50	0.69	59.12	0.56
EY5	1.5	10.0	0.39	1.37	1	1.36	50	0.69	59.12	0.56
EY2	1.5	12.7	0.40	1.37	1	1.36	50	0.69	58.39	0.57
EY6	1.5	17.0	0.41	1.37	1	1.36	50	0.69	57.66	0.58
EK9	2.0	6.0	0.35	1.87	1	1.85	50	0.94	72.19	0.52
EV3	2.0	8.0	0.42	1.87	1	1.85	50	0.94	68.45	0.59
EJ8	2.0	10.0	0.48	1.87	1	1.85	50	0.94	65.24	0.65
EK4	2.0	12.7	0.39	1.87	1	1.85	50	0.94	70.05	0.56
EY7	2.0	17.0	0.54	1.87	1	1.85	50	0.94	62.03	0.71
EQ6	2.3	6.0	0.36	2.17	1	2.15	50	1.09	75.58	0.53
EP1	2.3	8.0	0.39	2.17	1	2.15	50	1.09	74.19	0.56
EJ9	2.3	10.0	0.39	2.17	1	2.15	50	1.09	74.19	0.56
EK5	2.3	12.7	0.60	2.17	1	2.15	50	1.09	64.52	0.77
EV8	2.3	17.0	0.75	2.17	1	2.15	50	1.09	57.60	0.92
EQ7	2.7	6.0	0.36	2.57	1	2.54	50	1.29	79.38	0.53
EU8	2.7	8.0	0.37	2.57	1	2.54	50	1.29	78.99	0.54
EK1	2.7	10.0	0.39	2.57	1	2.54	50	1.29	78.21	0.56
EK6	2.7	12.7	0.57	2.57	1	2.54	50	1.29	71.21	0.74
EY8	2.7	17.0	0.80	2.57	1	2.54	50	1.29	62.26	0.97
E2S	3.0	6.0	0.34	2.87	1	2.84	50	1.44	82.23	0.51
E2T	3.0	8.0	0.37	2.87	1	2.84	50	1.44	81.18	0.54
E2P	3.0	10.0	0.54	2.87	1	2.84	50	1.44	75.26	0.71
E2U	3.0	12.7	0.58	2.87	1	2.84	50	1.44	73.87	0.75
E2V	3.0	17.0	0.79	2.87	1	2.84	50	1.44	66.55	0.96
EQ8	3.3	6.0	0.34	3.17	1	3.14	50	1.59	83.91	0.51
EV6	3.3	8.0	0.37	3.17	1	3.14	50	1.59	82.97	0.54
EK2	3.3	10.0	0.57	3.17	1	3.14	50	1.59	76.66	0.74
EK7	3.3	12.7	0.57	3.17	1	3.14	50	1.59	76.66	0.74
EY9	3.3	17.0	0.80	3.17	1	3.14	50	1.59	69.40	0.97
E2W	3.5	6.0	0.32	3.37	1	3.34	50	1.69	85.46	0.49
E2X	3.5	8.0	0.35	3.37	1	3.34	50	1.69	84.57	0.52
E2R	3.5	10.0	0.39	3.37	1	3.34	50	1.69	83.38	0.56
E2Y	3.5	12.7	0.29	3.37	1	3.34	50	1.69	86.35	0.46
E3B	3.5	17.0	0.79	3.37	1	3.34	50	1.69	71.51	0.96
EQ9	3.8	6.0	0.33	3.67	1	3.63	50	1.84	86.38	0.50
EV7	3.8	8.0	0.39	3.67	1	3.63	50	1.84	84.74	0.56
EK3	3.8	10.0	0.35	3.67	1	3.63	50	1.84	85.83	0.52
EK8	3.8	12.7	0.57	3.67	1	3.63	50	1.84	79.84	0.74
E1A	3.8	17.0	0.78	3.67	1	3.63	50	1.84	74.11	0.95

Schlegel Electronic Materials (SEM), a well-respected leader in the EMI Shielding industry, introduces Fabric Over Silicone EMI Gaskets (FOS) for high temperature applications. FOS has been developed with a new flame retardant formulation providing EMI shielding gaskets with UL94-V0 grade (Underwriters Laboratories Inc.) and Halogen Free according to IEC 61249-2-21 (<=900 ppm chlorine, <=900 ppm bromine and 1500 ppm max. halogens). Fabric Over Silicone EMI gaskets provide low compression forces, low compression set and an operating temperature that can be up to 125°C (257°F). Combined with Highly flexible SEM fabrics NiCu-C12 or NiCu-C70, Fabric Over Silicone gaskets still feature over 70 dB attenuation at 40 GHz (SEM Stripline method) making this product ideal for on-board shielding or high temperature environment. Fabric Over Silicone is currently available for all the SEM rectangular profiles.



Fig 1. Contact Resistance and Compression Load Deflection Testing result of ED9 (1.5 x 5.0 mm) Gasket



#### Using the table

1. Pick in the table the nominal gap NG(mm) the closest to the actual one in your application.

2. Select the height H (mm) in order to fill the gap as much as possible.

3. Verify that mG and MG values are within the tolerances of the nominal gap NG.

## **Technical Specifications**

CHARACTERISTICS	SPECIFICATIONS	TEST METHODS
Shielding Effectiveness	96 dB average (20MHz-10GHz) :NiCu-C70 97.4 dB average (20MHz-10GHz): NiCu-C12	MIL DTL 83528 C
Compression Force	1.70 lbs/inch @ 40%*	SEM LP-3001
Contact Resistance	0.031 ohms-inch @ 40%*	SEM LP-3001
Compression Set	5% (compressed 50% for 22 hrs at 70°C) * *	ASTM D 3574
Compression Range	30 – 70 %	
Surface Resistance	<=0.066 Ohms/sq. : NiCu-C70 <=0.024 Ohms/sq. : NiCu-C12	ASTM F390
Contact Resistance at 1Kg load	< 0.11 ohms-in < 0.08 ohms-in	SEM LP-3001
Operating Temperature	-40°C , +125°C	ASTM D3574
Abrasion Resistance	>= 1,000 cycles: NiCu-C70 >= 1,000 cycles: NiCu-C12	ASTM D3884
Flame Retardant	UL94 V0	UL94 (Underwriters Laboratories, Inc)
Compliance	2015/863/EU (RoHS 2.0) Compliant REACH SVHC Compliance	
Halogen Content	<=900 ppm chlorine & <=900 ppm bromine & 1500 ppm max for both	IEC 61249-2-21 / EN 14852 B

\* Result is measured on the ED9 Resulted measured => Result was measured ED9 (1.5 x 5.0 mm) profiles

\*\*Result measured on the 5 mm x 25.4 mm x 25.4 mm silicone foam

The technical specification data is based on SEM tests and analysis that we believe to be reliable. However, in no event, shall SEM be liable for the inaccuracies or omissions contained therein. In all cases, details and values should be verified by the customer.

Part Number Guideline EXXSNMXXXXHF

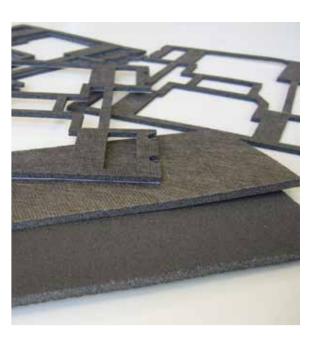
S: specifies Silicone foam.

N: specifies the fabric type (3: NiCu-C70 Ripstop Fabric, 4: NiCu-C12 Plain Weave Fabric). M: specifies the finishing/attachment system (refer to page 12 Part Number Guide). XXXXX: specifies length in the form XXX.XX". Schlegel Electronic Materials (SEM) introduces NEW Conductive Foam (CF). SEM conductive foam, a highly resilient Nickel-Copper plated polyurethane foam, is sandwiched between SEM's knitted and non-woven conductive fabrics to form industry leading substrate for die-cut gaskets. CF material is ideal for applications that require surface conformity with excellent cavity-to-cavity EMI shielding, superior conductivity under low compression forces and better shielding effectiveness at very high frequencies. CF gaskets are precision die-cut with a back-layer of either conductive or non-conductive pressure-sensitive-adhesive (PSA).

Schlegel's manufacturing and metal plating processes enhance the material integrity of the SEM Conductive Foam and ensure excellent galvanic compatibility even for large surface applications like I/O gaskets. The through-conductivity achieved with Schlegel CF increases the shielding effectiveness at high frequencies by shortening the return current path between the flanges.

Conductive fabrics ov	er Nickel-Copper plat
Dimensions	Maximum Width: 22" (56 Thicknesses: 0.02", 0.04" (0.45mm, 1.00mm, Other thicknesses may be
Operating Temperatures	-40°F - 156°F (-40°C - +70° (Standard test methods
Surface Resistivity	<0.08 Ohm/sq.
Compression set	<15% (compressed at 509
Tensile Strength	15 kg/inch (CF-78-30FR)
Flammability	UL94-V0/V1 – See details a
Aging	No change in surface res
Shielding Effectiveness	>90 dB AVG. 10-1000 MH
Compliance	2015/863/EU (RoHS 2.0) c

Thickness	Tolerance	UL Fire Rated	Part #
0.45mm	± 0.2mm	-	CF-78-05NR
1.00mm	± 0.2mm	UL94-V0	CF-78-10FR
1.50mm	± 0.2mm	UL94-V0	CF-78-14FR
1.50mm	± 0.2mm	-	CF-78-14NR
2.30mm	± 0.3mm	UL94-V0	CF-78-20FR
2.30mm	± 0.3mm	-	CF-78-20NR
3.40mm	± 0.3mm	UL94-V1	CF-78-30FR
3.40mm	± 0.3mm	-	CF-78-30NR
5.00mm	± 0.5mm	-	CF-78-50NR



## ted polyurethane foam

60mm)

", 0.06", 0.09", 0.13", 0.20"

, 1.5mm, 2.3mm, 3.4mm, 5.0mm)

e available. Please contact your SEM Representative.

°C) in accordance with ASTM D3374 for flexible cellular materials)

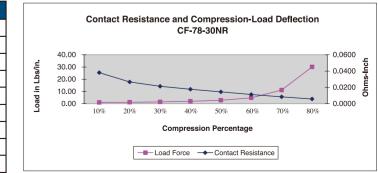
% during 22 Hrs. @70°C)

at <u>www.UL.com</u> (SEM FE – Plastic component QMFZ2. E313523)

sistivity after exposure to 60°C - 90%RH – 300 hrs

Hz (Tem-T Cells-Method described in IEEE Std 1302)

compliant

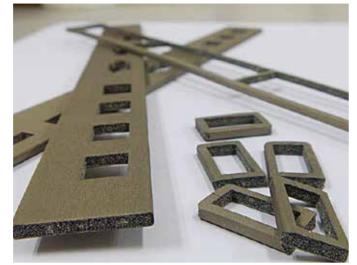


## **ORS-II**

## **ORS-II**

## THE RIGHT SHIELDING PRODUCT FOR DIE-CUT I/O APPLICATIONS

Information Technology Equipment and other electronic devices must comply with various international radiated emissions and susceptibility requirements. Under specific conditions, FCC part 15 (US) requires such equipment to pass stringent regulations up to 40 GHz. Most unintentionally-radiated emissions are from field leakage at various chassis external interfaces, or from unbalanced differential signals; containment of both require shielding materials to provide a low impedance path despite the broadband and/or high frequency operation of such devices. Simultaneously, these electronic devices are sensitive to various susceptibility requirements, including electrostatic discharge (ESD, e.g., IEC 61000-4-2), and, in some cases,



must resist to applied voltages as high as 15 kV. In this instance, the same shielding materials must also feature a very low impedance/resistance at very low frequencies to ensure a harmless discharge path exists to allow the charge to flow from the I/O connectors to the exterior of the chassis, and then safely away from the devices.

Schlegel Electronic Materials (SEM) introduces ORS-II, a new series of gaskets specially designed for broadband applications. By combining its famous nickel copper plated conductive foam and its high-end nickel copper C12 flexible fabric cladding, ORS-II offers minimal surface resistance to achieve superior grounding and shielding results at low frequencies. By offering excellent Z-conductivity to close the cavities in the chassis openings, ORS-II also ensures substantial shielding performance at high frequencies.

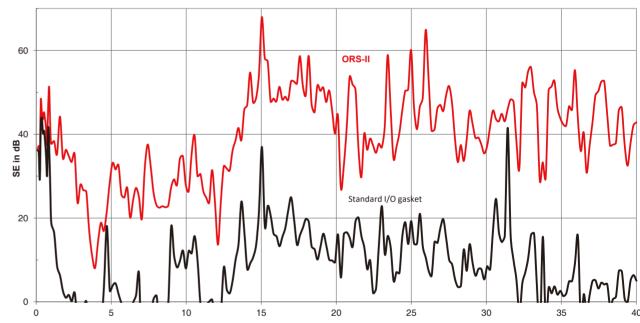
ORS-II is available in a variety of thicknesses, which are die-cut to customer specifications, for a durable highly conductive product in all X-Y-Z axes. In addition, shielding efficiency is achieved with less sensitivity to compression variances than other traditional shielding products. ORS-II is available with a UL94-V0 flammability rating and complies with RoHS 2.0 European Directive and SVHC Policy (REACH).

All these features combined in one product makes ORS-II a great engineering solution when addressing all types of shielding challenges which are present in broadband and high-speed applications.

ORS-II is available in a multitude of geometries and in varying thicknesses. ORS-II is recommended for all combinations of I/O connectors, is particularly effective when broadband emissions and/or susceptibility are of concern, and is far more effective than standard conductive foam when superior grounding is important.

## **TECHNICAL SPECIFICATIONS**

Shielding Effectiveness 0.1 – 40GHZ	See Graph	Stripline method (IEEE std 1302)
Operation Temperature	-40°F +156°F (-40°C +70°C)	
Flammability	UL94 V0	UL94
Surface Resistivity	<= 0.024 Ohm/sq.:NiCu–C12 <= 0.08 Ohm/sq.: NiCu–C22	SEM LP 3004
Contact Resistance (@ 1Kg load)	<0.08 Ohm-inch : NiCu-C12 <0.2 Ohm-inch : NiCu-C22	SEM LP 3001
Abrasion Resistance	1,000 cycles	ASTM D 3884
Thicknesses (mm)	1.00, 1.50, 2.30, 3.40, 5.00	





frequency in Ghz

## **Environmental and EMI Hybrid EEH Series**

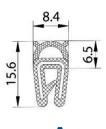
## **Environmental and EMI Hybrid EEH Series**

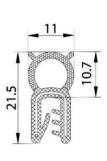
Schlegel Electronic Materials (SEM) EEH Series' gaskets have been specially designed to provide environmental sealing as well as EMI shielding for outdoor electronic cabinets. EEH gaskets are Fabric over EPDM (Ethylene Propylene Diene Monomer) sponge rubber cores extruded over a galvanized wire core for flange mounting. This product provides cost savings to manufacturers assembly lines, as labor costs are substantially reduced as they are able to use one EEH gasket instead of two different gaskets.

EEH series' gaskets are designed to ease mounting through special reinforced clips which can accommodate a wide variety of metal thicknesses. The gasket can be picture framed to ensure continuously environmental sealing in the corners. EEH profiles and materials excel in dynamic or high cycling applications such as front doors or access panels with low compression rates and very limited compression set. An operating temperature range of EPDM starts from -40°C to 100°C, and the material has good resistance to UV, water and acids etc.

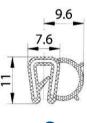
SEM recommends half-wrapped EPDM for environmental and EMI protection using our corrosion resistant SnCu-C50 fabric. We also offer a full range of alternative combinations, please contact your local office for design help and advice.

Part Number	FW: Full Wrap HW: Half Wrap N: None	Fabric	Туре	Flange Thickness
EW10.00019	FW	SnCu-C50	А	1-3.3
EW10.00020	FW	SnCu-C50	В	1-4.8
EW10.00021	FW	SnCu-C50	С	1.5-3.6
EW10.00022	FW	SnCu-C50	D	1-4.8
EW10.00001	FW	NiCu-C12	А	1-3.3
EW10.00013	FW	NiCu-C12	В	1-4.8
EW10.00005	FW	NiCu-C12	С	1.5-3.6
EW10.00009	FW	NiCu-C12	D	1-4.8
EW10.00002	FW	NiCu-C70	А	1-3.3
EW10.00014	FW	NiCu-C70	В	1-4.8
EW10.00006	FW	NiCu-C70	С	1.5-3.6
EW10.00010	FW	NiCu-C70	D	1-4.8
EW10.00015	FW	AgRs-C2	А	1-3.3
EW10.00016	FW	AgRs-C2	В	1-4.8
EW10.00017	FW	AgRs-C2	С	1.5-3.6
EW10.00018	FW	AgRs-C2	D	1-4.8
EW10.00023	FW	NiCu-C22	А	1-3.3
EW10.00024	FW	NiCu-C22	В	1-4.8
EW10.00025	FW	NiCu-C22	С	1.5-3.6
EW10.00026	FW	NiCu-C22	D	1-4.8
EW20.00026	HW	SnCu-C50	А	1-3.3
EW20.00027	HW	SnCu-C50	В	1-4.8
EW20.00028	HW	SnCu-C50	С	1.5-3.6
EW20.00029	HW	SnCu-C50	D	1-4.8
EW20.00003	HW	NiCu-C12	А	1-3.3
EW20.00015	HW	NiCu-C12	В	1-4.8
EW20.00007	HW	NiCu-C12	С	1.5-3.6
EW20.00011	HW	NiCu-C12	D	1-4.8
EW20.00004	HW	NiCu-C70	А	1-3.3
EW20.00016	HW	NiCu-C70	В	1-4.8
EW20.00008	HW	NiCu-C70	С	1.5-3.6
EW20.00012	HW	NiCu-C70	D	1-4.8
EW20.00018	HW	AgRs-C2	А	1-3.3
EW20.00019	HW	AgRs-C2	В	1-4.8
EW20.00020	HW	AgRs-C2	С	1.5-3.6
EW20.00021	HW	AgRs-C2	D	1-4.8
EW20.00022	HW	NiCu-C22	А	1-3.3
EW20.00023	HW	NiCu-C22	В	1-4.8
EW20.00024	HW	NiCu-C22	С	1.5-3.6
EW20.00025	HW	NiCu-C22	D	1-4.8
EW00.00001	N	EPDM ONLY	А	1-3.3
EW00.00002	N	EPDM ONLY	В	1-4.8
EW00.00003	N	EPDM ONLY	С	1.5-3.6
EW00.00004	N	EPDM ONLY	D	1-4.8

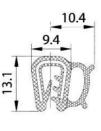






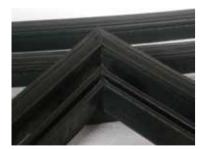






## **Material Properties**

Material Properties	Testing Method /Standards	EPDM Rubber Sponge-PG61	EPDM Rubber Solid-PG281	
Density	DIN 53479 /DIN 63505 (PG281)	0.60 g/m <sup>3</sup>	1.26±0.02 g/cm <sup>3</sup>	
Hardness	DIN 53519-1,2, ISO 1183 (PG281)	_	60±5	
Tensile Strength	ISO 37, DIN 53504	>1.5 N/mm <sup>2</sup>	>8 N/mm²	
Elongation off	ISO 37, DIN 53504	>300%	>400%	
Air Ageing- 72 hours / 100°C	ISO 188:1998, ISO 188:2006	CHANGE	D VALUES	
Hardness Shore A - (Changed values)	DIN 53519-1,2, ISO 1183 (PG281)	_	±5	
Tensile Strength (Changed values)	DIN ISO 34	3.1 N/mm²	9.0 N/mm²	
Elongation off (Changed values)	DIN ISO 34	>100%	100%	
Temperature Range (application)	-40°C To + 100°C			
Flash Point	250°C			
Clamping range	Flange thickness from 1.5mm	Flange thickness from 1.5mm to 4.8mm		
Sealing suitability	Level of IP according to design			
Length of supply	25 mts per roll			
Resistance to Chemical & Weather Conditions	Alcohol, ozone, mild acids, acetone & Alkali			



EEH serie can be supplied in frames with 90° angles and bonded with thermo plastic elastomer. This process preserves the environmental sealing properties of the gasket in the corners. EW XX YZ F LLLLL / WWWWW (\*) XX: HW / FW Y: Type of profile (A-B-C-D) Z: 1: SnCu-C50 / 2: NiCu-C70 / 3: NiCu-C12 / 4: AgRs-C2 / 5: NiCu-C22 LLLLL\*\*: Length in inches (LLL,LL") WWWWW\*\*: Width in inches (WWW,WW")

(\*): Please consult SEM representative to confirm availability of any combination

(\*\*): External dimensions of the frame

## SEM ENVIRONMENTAL EMI HYBRID GASKET FOR RAILWAYS APPLICATIONS EUROPE

In order to guarantee the same level of security in railways vehicles in the European Union in the event of a fire on board, the CENELEC (TC 256) has released a standard EN 45545 which has become a national standard for all member states. The standard specifies the level of safety (HLx: Hazard Level) according to the requirements (location, application) and the type of vehicles (OC: Operation Category). The level of safety (HL1, HL2 or HL3) will depend on the results obtained by the materials on specific test for level of oxygen index, smoke emanation and toxicity. For further information on the subject, please refer to the standard. For EN 45545-2, Schlegel Electronic Materials EEH gasket's materials are to comply with R22/ R23 requirements (longitudinal seals such as window seals, door joints and panel connections) and is rated HL2 (see details on the following table). By the combination of EN 45545 rated EPDM core material and a wide choice of very conductive claddings, Schlegel Electronic Materials provide a cost effective solution to meet the EMC requirements for Railways applications according to EN 50121.

#### Part Number

EWXX.XXXXX R for the standard profiles EW XX YZ F LLLLL/WWWWW R for frames (See details on page 37)

#### **SPECIFICATIONS**

	EW20.00026	}		8.4	
RAILWAYS			15.6	Sponge	
Er	nvironmental EMI Hyb	orid Gasket		- 10	Solid
EPDM EXTRUSION COMPOUND	SPECIFICATION	UNIT	Requirement	HexFlame 45-1000	HexFlame 45-7000
Elastomer/Polymer				EPDM SOLID	EPDM SPONGE
Curing				Sulphur	Sulphur
Color			Black	Black	Black
Specific Gravity	DIN 53479	g/cm <sup>3</sup>		+/- 1.51	+/- 0.8
Hardness	DIN 53505	shore A		64	N/A
Tensile strength	DIN 53504	N/mm <sup>2</sup>		ca.5	-
Elongation at break	DIN 53504	%		>400	-
Tear Strength	DIN 53507-A	N/mm		ca.5	-
Ozon resistance	DIN 53509			Resistant	Resistant
Nitrosamine		ppm		none	none
Halogens		ppm		none	none
Flammability	EN 45545-2		Class	R22/23,HL3	R22/23,HL2
Smoke density/Gas analysis	EN ISO 5659-2	Max.	<=150 (HL3), <300 (HL2)	54	102.35
Oxygen index	ISO 4589-2	%	>=32 (HL3), >28 (HL2)	33.8	31.1
Toxicity	NF X70-100-1&2	CIT NLP	<=0.75 (HL3), <0.9 (HL2)	0.64	0.54
Test results determined on vulcanized (10 min./180°C) 2 and 6 mm thick sheets					
Identification : ' SEM EN 45545' printed in yellow on the clip area					

## MORE FLEXIBILITY, HIGHER CONDUCTIVITY, AND EASIER INSTALLATION

SEM's expanded line of Conductive Tapes meets the customer needs for flexibility, higher conductivity, and easier installation. SEM Conductive Tapes feature superior shear strength, 7.6 kPa (72+ hours @ 1.1 psi) in accordance to (PSTC #7) ASTM D 3654, and peel strength, from 10.2 N/2.5 cm (36.07 oz/inch width) to 20.3 N/2.5cm (71.8 oz/inch width) in accordance to (PSTC #1) ASTM D 3330 when compared to other EMI shielding tapes. This is made possible by a unique, cross-linking acrylic based, conductive Pressure Sensitive Adhesive (PSA) that also allows the tapes to be designed into higher temperature applications. Low temp application is possible down to 10°F (-12°C), and excessive pressure is not required for application to the end unit. There is now an easy-to-apply tape to fit most every EMI shielding design need.

## Conductive Silver Tapes (CST) \_

### HIGHER CONDUCTIVITY WITHOUT THE SHARP EDGES

The foundation of SEM's tape products is Conductive Silver Fabric Tape. CST offers superb conductivity and ease of installation for a wide range of applications. The smooth, soft-edged tape will not crack after repeated flexing, or cause injuries. SEM CST achieves total coverage, even on irregular surfaces and experiences no significant shrinkage at temperatures up to 180°C (356°F). A unique, conductive Pressure Sensitive Adhesive (PSA) allows the tapes to be designed into higher temperature applications. The PSA is fire rate to UL 510, and excessive pressure is not required for application to the end unit.

CST tape has an average shielding effectiveness of 70 dB in the range of 20 MHz to 10 GHz. CST's protective C2 coating lowers the cathodic potential of the silver to make it galvanically compatible with a variety of EMI gaskets and cabinet surfaces. A superior alternative to sharp, non-conforming foil tapes, SEM's lightweight Conductive Silver Tape is ideal for grounding and for sealing small apertures in frames.

For assemblers, the CST's soft fabric is safe and easy to work with, and it stays firmly in place with SEM's strong, high-tack conductive adhesive. The conductive fabric base also allows the tape to be custom-cut in virtually any unique shape with simple, inexpensive tooling.



Sizes		
Tape Width	Tape Length	Part Number
0.315″ (8mm)	18 yard (16.45m) roll	5941-0031-0
0.500" (12.7mm)	18 yard (16.45m) roll	5941-0050-6
0.788" (20mm)	18 yard (16.45m) roll	5941-0079-8
1.000″ (25.4mm)	18 yard (16.45m) roll	5941-0100-3
1.180″ (30mm)	18 yard (16.45m) roll	5941-0118-2
2.000" (50.8mm)	18 yard (16.45m) roll	5941-0200-5

#### Specifications

- Fabric: Silver woven nylon ripstop fabric with C2 anti-corrosion coating.
- Adhesive: High-tack, conductive adhesive system
- Surface Resistivity: <=0.5Ω/sg. Test Method: ASTM F390 modified. Resistivity through adhesive: <=120 milliohms/square inch.</li>
- · Low Temperature Application: -40°F (-40°C).
- · Abrasion Resistance: No change in surface resistivity and no fabric degradation after more than 800 wear cycles. Test Method: ASTM D3884.
- Peel Strength Test Method ASTM D3330:
- 45.80 oz per inch (1.62g per mm) @ 1 hour dwell initial.
- 47.47 oz per inch (1.67g per mm) @ 24 hour dwell initial.
- · Shielding Effectiveness: 95dB. Test method: Mil DTL 83528C.

## **Conductive Mask & Peel Tape (CMP)**

SHIELD ENCLOSURES SAFELY AND EFFICIENTLY SEM's Conductive Mask & Peel (CMP) tape simplifies the manufacture of painted enclosures. CMP is constructed of impenetrable, heat-release mask, highly conductive nickel copper fabric and strong high-tack, conductive adhesive, which secures the tape to the metal for superior EMI shielding. The tape employs Press, Paint, and Peel application and provides total coverage. The CMP tape's volume resistance is in the range of 0.8 - cm [average]. When CMP is used with SEM shielding gaskets, a highly conductive pathway is obtained, and provides excellent galvanic capability between mating surfaces. Typical applications include large cabinets, factory automation equipment and data storage units.

Press, Paint and Peel application is simple, safe, and secure. The operator removes the release liner from the back of the fabric tape and applies it to the prepared bare metal surface. No sharp edges exist that could lead to injuries. The 2-mil polyimide mask prevents infiltration of paint during the spraying or powder-coat process. Enclosures with CMP can be baked at temperatures up to 180°C (356°F) for up to 30 minutes. The low-tack mask releases during baking so it can be easily be removed to reveal the highly conductive fabric surface.

Sizes		
Tape Width	Tape Length	Part Number
0.315″ (8.0 mm)	36 yard (33m) rolls	5935-0031-4
0.500″ (12.7 mm)	36 yard (33m) rolls	5935-0050-0
0.788" (20.0 mm)	36 yard (33m) rolls	5935-0079-4
1.000″ (25.4 mm)	36 yard (33m) rolls	5935-0100-7
1.180″ (30.0 mm)	36 yard (33m) rolls	5935-0118-8
1.570″ (40.0 mm)	36 yard (33m) rolls	5935-0157-6
2.000" (50.8 mm)	36 yard (33m) rolls	5935-0200-9
2.500" (63.5 mm)	36 yard (33m) rolls	5935-0250-4

#### **Specifications**

- Fabric: Woven copper nickel fabric. · Adhesive: High-tack, aggressive conductive adhesive system.
- Surface Resistivity: <=0.024Ω/sq.</li>
- Resistivity through adhesive: <=10 milliohms/square inch.
- · Low Temperature Application: -40°F (-40°C).

## Conductive NiCu Fabric Tape (CFT) —

SEM's CFT is made from the same woven copper nickel fabric as its CMP and has the same conductive and galvanic capabilities. The nickel copper fabric, along with SEM's aggressive high temperature resistant conductive PSA, is designed specifically for applications that do not require a mask, i.e., cabinets that are not going to be painted or powder coated.

Sizes		
Tape Width	Tape Length	Part Number
0.315" (8.0 mm)	36 yard (33m) rolls	5927-0031-0
0.500″ (12.7 mm)	36 yard (33m) rolls	5927-0050-6
0.788" (20.0 mm)	36 yard (33m) rolls	5927-0079-2
1.000" (25.4 mm)	36 yard (33m) rolls	5927-0100-3
1.180" (30.0 mm)	36 yard (33m) rolls	5927-0118-8
1.570″ (40.0 mm)	36 yard (33m) rolls	5927-0157-2
2.000" (50.8 mm)	36 yard (33m) rolls	5927-0200-5

Abrasion Resistance: No change in surface resistivity after more than 1,000 wear cycles. Test method: ASTM D3884.

Shrinkage: <1% @ 180°C (356°F) for 30 minutes. Test Method: LP-3012.

· Peel Strength: 50 oz. Per inch minimum initial. Test Method: ASTM D3330.

Shielding Effectiveness: 97.4dB. Test method: Mil DTL 83528C.





- · Fabric: Woven copper nickel fabric.
- · Adhesive: High-tack, aggressive conductive adhesive syste
- Surface Resistivity: <= 0.0240/sq.</li>
- · Resistivity through adhesive: <=10 milliohms/square inch
- Low Temperature Application: -40°F (-40°C).
- · Abrasion Resistance: No change in surface resistivity after more than 1,000 wear cycles. Test method: ASTM D3884.
- · Shrinkage: <4% @ 180°C (356°F) temperature.
- · Peel Strength: 50 oz. Per inch minimum initial. Test Method: ASTM D3330.
- Shielding Effectiveness: 97.4dB. Test method: Mil DTL 83528C.

## **SEM Conductive Tapes**

## **EMI Shielding For D-SUB Connectors**

## Conductive NiCu-C70 Rip-stop Fabric Tape (CFTII)

Schlegel Electronic Materials (SEM)'s CFT(II) is made of using polyester rip-stop copper nickel fabric with high conductivity PSA. CFT (II) have an average shielding effectiveness over 96 dB in the frequency ranges from 20 MHz to 10 GHz. In additional to the easy-to-apply properties to fit the most EMI shielding design, it is also ideal for grounding and sealing purpose. And it is the most economical by comparing to other SEM Conductive Tapes.



Sizes		
Tape Width	Tape Length	Part Number
0.315″ (8.0 mm)	36 yard (33m) rolls	5923-0031-0
0.500" (12.7 mm)	36 yard (33m) rolls	5923-0050-6
0.788" (20.0 mm)	36 yard (33m) rolls	5923-0079-2
1.000″ (25.4 mm)	36 yard (33m) rolls	5923-0100-3
1.180" (30.0 mm)	36 yard (33m) rolls	5923-0118-8
1.570″ (40.0 mm)	36 yard (33m) rolls	5923-0157-2
2.000" (50.8 mm)	36 yard (33m) rolls	5923-0200-5

Black Conductive NiCu-C22 Fabric Tape -

#### **Specifications**

- · Fabric: Nickel-Copper plated polyester ripstop fabric.
- · Adhesive: High-tack, conductive adhesive system.
- Surface Resistivity: <= 0.066Ω/sq.</li>
- · Resistivity through adhesive: <=80 milliohms/square inch.
- · Low Temperature Application: -40°F (-40°C).
- · Abrasion Resistance: No change in surface resistivity after more than
- 1.000 wear cycles. Test method: ASTM D3884.
- Shrinkage: <4% @ 180°C (356°F) temperature.</li>
- · Peel Strength: 50 oz. Per inch minimum initial. Test Method: ASTM D3330. Shielding Effectiveness: 96dB. Test method: Mil DTL 83528C.



Schlegel Electronic Materials (SEM) offers the Black Conductive NiCu Fabric Tape which is similar to CFT(II) but blackened for the cosmetic purposes. The blackened conductive fabric was in rip-stop pattern with surface resistivity lower than 0.08 ohm/sq. The average shielding effectiveness over 95.76 dB in the frequency ranges from 20 MHz to 10 GHz. It provides the alternative to customer who prefer the black color conductive tape for the appearance design but not necessary to have silver content inside as Conductive Silver Tape (CST).

	SIZES				
	Tape Width	Tape Length	Part Number		
Specifications	0.315″ (8.0 mm)	36 yard (33m) rolls	5921-0031-0		
<ul> <li>Fabric: Nickel-Copper plated polyester ripstop fabric.</li> <li>Adhesive: High-tack, conductive adhesive system.</li> </ul>	0.500″ (12.7 mm)	36 yard (33m) rolls	5921-0050-6		
<ul> <li>Surface Resistivity: &lt;= 0.08Ω/sq.</li> <li>Resistivity through adhesive: &lt;=20 milliohms/square inch.</li> </ul>	0.788" (20.0 mm)	36 yard (33m) rolls	5921-0079-2		
· Low Temperature Application: -40°F (-40°C).	1.000" (25.4 mm)	36 yard (33m) rolls	5921-0100-3		
Abrasion Resistance: No change in surface resistivity and no fabric degradation after more than 1,000 wear cycles. Test method: ASTM D3884.	1.180" (30.0 mm)	36 yard (33m) rolls	5921-0118-8		
<ul> <li>Shrinkage: &lt;4% @ 180°C (356°F) temperature.</li> <li>Peel Strength: 50 oz. Per inch minimum initial. Test Method: ASTM D3330.</li> </ul>	1.570″ (40.0 mm)	36 yard (33m) rolls	5921-0157-2		
Shielding Effectiveness: 95.76dB. Test method: Mil DTL 83528C.	2.000" (50.8 mm)	36 yard (33m) rolls	5921-0200-5		

## Conductive SnCu-C50 Fabric Tape -

Schlegel Electronic Materials (SEM) offers the Conductive SnCu Fabric Tape which is made of Tin copper plain weave woven fabric with high conductivity PSA. This provides the good galvanic compatibility for most common materials and higher corrosion resistance which target for outdoor application. The average shielding effectiveness of conductive SnCu fabric tape is over 95.3 dB in the frequency ranges



from 20 MHz to 10 GHz and the surface resistivity is less than 0.02 ohm/sq.

#### Specifications

- Fabric: Tin Copper plated nylon plain weave fabric.
- Adhesive: High-tack, conductive adhesive system.
- · Surface Resistivity: <=0.020Ω/sq.
- · Resistivity through adhesive: <=40 milliohms/square inch.
- · Low Temperature Application: -40°F (-40°C).
- · Abrasion Resistance: No change in surface resistivity and no fabric degradation after more than 1,000 wear cycles. Test method: ASTM D3884. · Shrinkage: <4% @ 180°C (356°F) temperature.
- · Peel Strength: 50 oz. Per inch minimum initial. Test Method: ASTM D3330.
- · Shielding Effectiveness: 95.3dB. Test method: Mil DTL 83528C.

Sizes		
Tape Width	Tape Length	Part Number
0.315" (8.0 mm)	36 yard (33m) rolls	5926-0031-0
0.500" (12.7 mm)	36 yard (33m) rolls	5926-0050-6
0.788" (20.0 mm)	36 yard (33m) rolls	5926-0079-2
1.000" (25.4 mm)	36 yard (33m) rolls	5926-0100-3
1.180" (30.0 mm)	36 yard (33m) rolls	5926-0118-8
1.570" (40.0 mm)	36 yard (33m) rolls	5926-0157-2
2.000" (50.8 mm)	36 yard (33m) rolls	5926-0200-5

#### I/O SHIELDING FOR ALL STANDARD SIZES

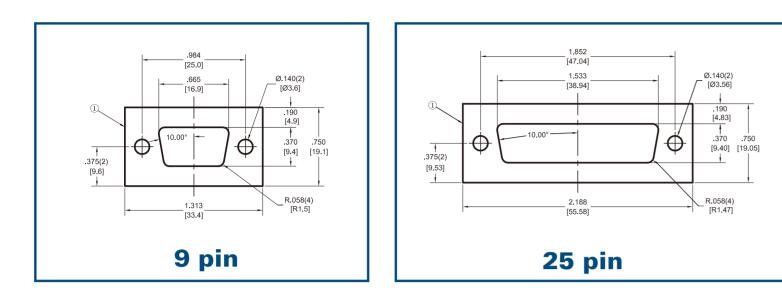
Sized to fit standard D-Subminiature connectors, installation-friendly SEM shielding gaskets enhance the performance of EMI shielding for I/O backplanes. Made of highly conductive fabric clad foam, SEM's I/O shielding gaskets provide multiple contact points to maintain conductivity and compensate for tolerance stackup. Pressure-sensitive adhesive is available, but not usually required for installation. There is no need to contend with shard-edged metal shields- simply slip the gaskets over the connector and secure. With no tooling costs, easy installation, and off-the-shelf availability, these gaskets are a simple and efficient solution to I/O EMI shielding.

Available D-SUB connector to EMI shielding gaskets include:



P/N	ТҮРЕ	Pin	Thickness			
E29XYG-0131	D-SUB	9	0.04″ (1 mm)			
E58XYG-0131	D-SUB	9	0.08″ (2 mm)			
E29XYG-0164	D-SUB	15	0.04″ (1 mm)			
E58XYG-0164	D-SUB	15	0.08″ (2 mm)			
E29XYG-0219	D-SUB	25	0.04″ (1 mm)			
E58XYG-0219	D-SUB	25	0.08″ (2 mm)			
E29XYG-0283	D-SUB	37	0.04″ (1 mm)			
E58XYG-0283	D-SUB	37	0.08″ (2 mm)			
E29XYG-0274	D-SUB	50	0.04″ (1 mm)			
E58XYG-0274	D-SUB	50	0.08″ (2 mm)			
X: Foam type (1: UL 94-HB, 5: UL-94V0, 7: UL94-V0 Ultrasoft)						
Y: Fabric (3: NiCu-C7	Y: Fabric (3: NiCu-C70, 4: NiCu-C12, 9: AgC2 )					

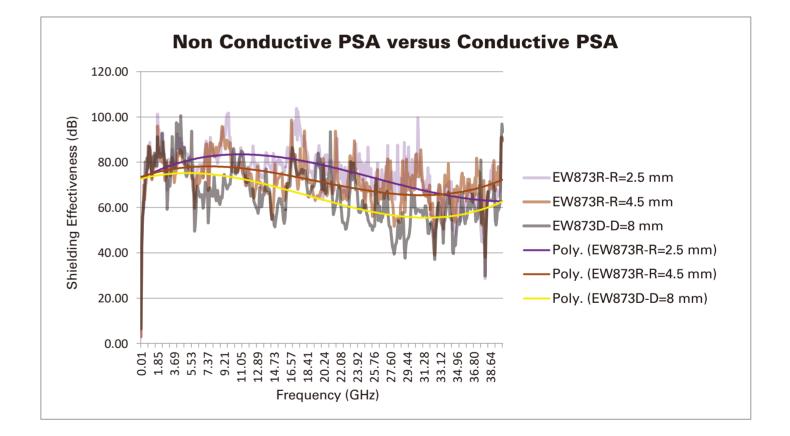
## **EMI Shielding For D-SUB Connectors**

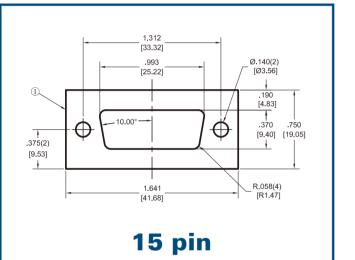


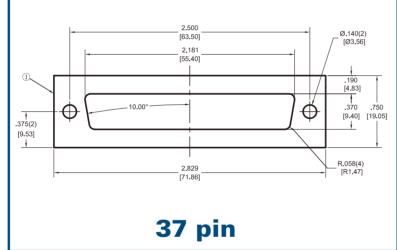
Schlegel Electronic Materials (SEM) recommends the use of non conductive adhesives in most cases (type R). All gaskets have a PSA width recommended according to the width of the profile to ensure sufficient direct contact at the bottom of the gasket with the application. Test was carried out according to SAE ARP 6248 (stripline method) on EW8 (9/3 mm) in order to measure the influence of non conductive PSA (2.5 mm and 4.5 mm wide) and conductive PSA (8 mm wide). Three profiles were tested compressed at 50% up to 40 GHz:

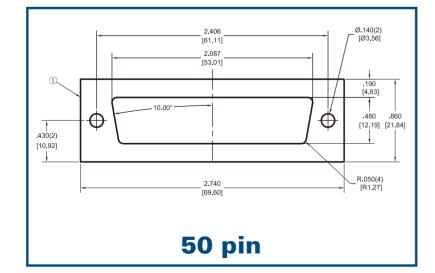
- EW873 + 2.5 mm R tape
- EW873 + 4.5 mm R tape
- EW873 + 8 mm D tape

Conductive PSA are usually a tradeoff between electrical conductivity and tackiness. In fact the more conductive particles embedded into the adhesive, the less tackiness and vice versa. Test results show clearly the influence of the width of the non conductive adhesive on the shielding characteristics and the poor results when the bottom surface is almost completely covered by conductive adhesive. The use of conductive adhesive should therefore be restricted to very small profiles where limited width prevent from the use of non conductive adhesive. Even for Z conductive foam, Schlegel Electronic Materials recommends the mounting of strips of non conductive adhesives.









## 1. Pressure Sensitive Adhesive (PSA)

The most popular attachment method is the Pressure Sensitive Adhesive (PSA). Standard PSA are non conductive and are dimensioned to not cover the entire gasket surface to ensure direct electrical contact. The constraints applied on the adhesive vary in large proportions depending on the type of application. There are limited constraints for static applications because the adhesive is just there to hold the gasket the time before it will be compressed. At the contrary, for dynamic applications, constraints increase and especially when forces are exerted in the horizontal axis (for ex. during blade or module insertion) which tends to push the gasket. Schlegel Electronic Materials has selected 3M acrylic based adhesives with high shear strength values\* to guarantee adhesions even in the most challenging dynamic applications.

#### To ensure the maximum bond strength from the adhesive, please follow the taping procedure.

	TI	Гаре		R Tape		НТаре			
Adhesive	Ac	rylic		Ad	crylic		A	crylic	
Liner	Extensible p	olycoate	d kraft	Polyco	oated krat	ft	Extensible p	olycoate	d Kraft
Adhesive thickness	5 mils (0.1270 mm)		6.7 mils (0.17 mm)		5 mils (0.1270 mm)				
Substrate	No carrier		Polyester carrier		No carrier				
Application	Pre	essure		Pre	essure		Pro	essure	
LT operating temp.	180°F(82.3°C)		200°F(93.4°C)		250°F(121°C)				
ST operating temp.	250°F(121°C)		300°F(149°C)		350°F(177°C)				
Elongation	8%		3%		8%				
Shear/Stainless steel	Immediate	24hrs	72hrs	Immediate	24hrs	72hrs	Immediate	24hrs	72hrs
PSI	14.7	34.8	47	17.4	45.7	50.7	17	39.4	48.3

Detailed 3M technical datasheet available on www.3M.com

Conductive adhesive can also be proposed and are recommended in specific instances (eg. very small profiles).

## A) Taping procedure

Clean the metal surface with typical surface cleaner solvent. For example, use isopropyl alcohol or a heptane.

Wait until the bond surface is clean and dry because grease, oil or mold release chemicals could create a barrier between the adhesive and the substrate and hence affect the bond strength.

Wearing finger cots is suggested as a finger print is one of the contamination sources.



Remove release liner slowly and carefully. Do not allow the release liner to tear during removal. Confirm that no release liner remains on the adhesive. If the release liner tears and the remaining release liner cannot be easily removed, discard gasket and use a new gasket. Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Dust, fiber or particle contamination will affect the tackiness of the adhesive and reduce the contact surface area.

Apply finger or hand pressure along the full length of gasket to completely bond to the metal surface. Confirm that pressure has been applied to both ends of the gasket to bond the adhesive to metal surface. Firm application pressure can develop a better adhesive contact and improve bond strength. The gasket and the tape can be used ONCE only. The gasket should not be peeled off and re-used again because the tape will lose its bond strength and will have adhesive issues.

The ideal tape application temperature range is 21°C to 38°C. Initial tape application to surfaces at temperatures below 10°C is not recommended as the adhesive will become too firm to adhere readily.

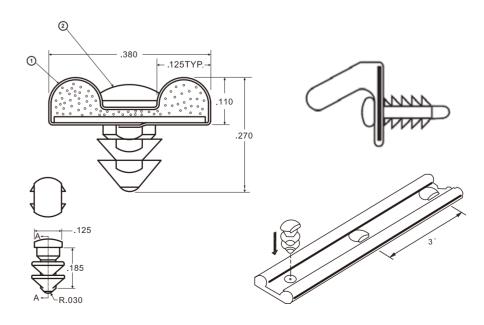
The bonding strength increases as a function of time. Time allows the adhesive flow on the substrate. In theory 72 hours dwell time is requested however about 2/3rd. of total adhesion strength is reached after 24 hours.

## B) Adhesive removal

3M has developed a Citrus based Cleaner especially to ease the removal of adhesive residues. Further information can be found at www.3M.com

## 2. Rivets

Some profiles can be mounted using rivets. Plastic inserts are therefore positioned to reinforce the holes and ensure a good partition of the forces.







## 3. Clips

Several profiles with plastic clips are currently available. The conductive fabric is therefore positioned in the clip area to ensure electrical path.





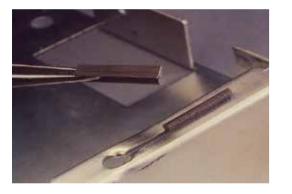




Schlegel PN	the widest size of the clip inside	Min. flange thickness (mm)	Max. flange thickness (mm)
E93	0.95	0.4	0.9
EB9	1.4	0.5	1.0
E64/ EB1	2.4	1.2	2.0
E56/ E43/ E35	1.5	0.6	1.2
E55	2.0	0.8	1.7

Note: The above size range can be concluded according to the actual assembly. Unit: mm

## 4. Self-mounting





## 5. Kiss cut

