



Brick → Products → Project Gallery → Showrooms → Why Brick

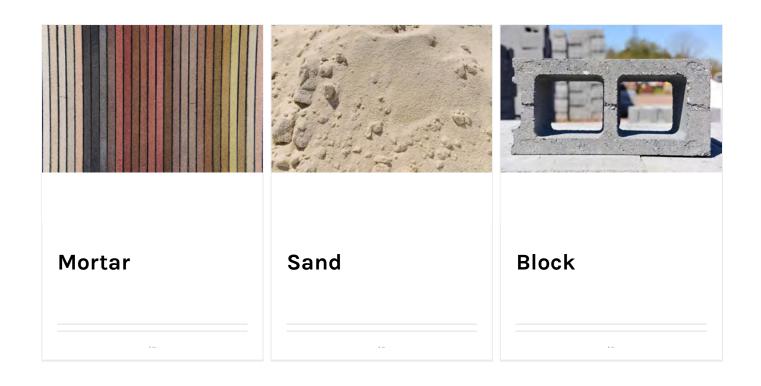


Description

Additional information

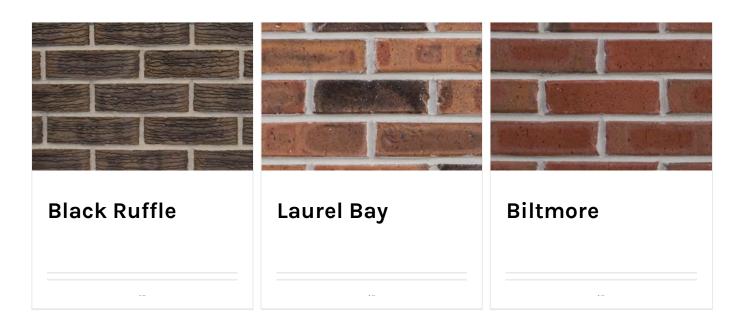
**Description** 







### **Related products**





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3501 Brickyard Road, Wallace, SC 29596

Toll Free: 1-800-922-4423

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Designed + Powered by ROOTED



### **MASONRY COLORS**















cement-services@argos-us.com

www.argos-us.com





All Argos Custom Color Cements as well as Magnolia® Masons Mix, Eaglebond® Portland/Lime, & Superbond® Mortar Cement are available in pre-mixed formulations. Below are samples of our most requested colors.



ARGOS Georgia Red



ARGOS Magnolia® Buff







### **About Argos Cements** for Masonry

What you get from Argos Cements for Masonry is durable, tasting color to enhance your masonry projects. As masonry leaders, we have been serving the southeast with high quality products for over 25 years.

We are proud that our products are made in the USA from all natural, sustainable materials. In fact, sustain-ability is manufactured into our entire product line including • Post-consumer recycled materials

- Maximum energy conservation
   Eco-friendly packaging

### A Sample of What **Argos Has to Offer**

In order to make precise color selections easier, an extensive choice is offered. Joint-size color sticks are available. If a new custom color is required, a sample stick in the new color will be provided. Brick sample panels mounted on boards can also be sent to the Argos Color Lab for color matching.

### Specifications

Argos Custom Color Masonry Cements comply with the requirements of ASTM C 91 Properly mixed with 2-1/4 to 3 parts sand conforming to ASTM C 144, the mortar should exceed requirements of ASTM C 270 for Type N, Type S, Type M or Type O

Argos Custom Color Cements for Masonry can be special ordered in Eaglebond®, Portland Cement/Lime or Superbond® Mortar Cement in Types N.S. M or O.

### **Quality Control**

As part of the non-stop quality control program all products are tested for conformance to ASTM Standards. conformance to ASTM standards. Tests include strength, workability, water retention, board life and plastic-ity. All facets of the products are tested and inspected to ensure that Argos provides the finest, most consistent. color masonry cement products in the market.

### **Technical Data**

For Product Data. Technical Application Information & MSDS information please visit our website at www.argos-us.com

### **Limited Warranty**

Argos warrants that Argos Color Masonry Cements meet applicable ASTM requirements. Argos makes no other warranty, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY of merchantability or fitness for a particular purpose. ALL OF WHICH ARE EXPRESSLY DISCLAIMED. Having no control over their use. Argos will not guarantee finished work in which these products are used.

### **Call an Experienced Professional**

To speak to an experienced professional about our colors or for assistance with selecting the masonry cement formulation for a particular project, please call 1-800-331-0022 or send an email to cement-services@argos-us.com





# > YHS 50 TU

Thermally Broken Impact Resistant and Blast Mitigation Storefront System



YKK AP Hurricane & Blast Solutions

YHS 50 TU is a high performance storefront system designed for insulating glass 1" to 1-5/16" thick and tested to meet the most demanding conditions. With varied infill and components, YHS 50 TU can meet the requirements for Impact Resistance, Blast Mitigation or both. YHS 50 TU is thermally broken by means of a poured and debridged pocket that employs ThermaBond Plus® to greatly improve the adhesion of the polyurethane to the extruded aluminum. The system integrates with H Series and HL Series entrances with medium or wide stiles. Entrances feature a wide variety of tested and approved hinging and locking hardware, including rim panic and concealed vertical rod exit devices.

### **FEATURES**:

- Hurricane Impact Large and Small Missle
  - IBC and Florida Product Approval
  - Wind Zone 3 & Florida High Velocity Hurricane Zone (HVHZ)
- **Blast Mitigation** Static and Dynamic Analysis capability to meet DoD, GSA and VA standards
- Design Pressures to 70 psf
- Engineered corners reduce job specific engineering
- Inside or outside glazing available
- Integrates with ThremaShade® and Luminance® sun control products and YKK AP venting windows





# > YHS 50 TU

Thermally Broken Impact Resistant and Blast Mitigation Storefront System

### PERFORMANCE SUMMARY:

Air Infiltration (ASTM E 283): 0.06 CFM / FT<sup>2</sup> @ 6.24 PSF (299 Pa)

Water Infiltration (ASTM E 331): 12 PSF (575 Pa)

### YHS 50 TU Acoustical and Thermal:

Acoustical Performance (AAMA 1801):

STC 1-5/16" Laminated - 39

OITC 1-5/16" Laminated - 33

Thermal Performance (AAMA 507, AAMA 1503, NFRC 100):

Frame CRF = minimum of 59

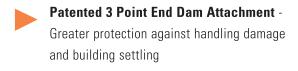
Overall System U-factor = 0.45 (using Ucog of 0.29)



YHS	.060	DESIGN PRESSURE			144"	108" to	OUTSIDE	IMPACT	INSIDE	IMPACT
SYSTEM	SentryGlass 50 PSF	50	65-70	90 144" 120" SPAN SPAN	120" SPAN	GLAZE	MISSILES A & D	GLAZE	ESSENTIAL FACILITIES	
YHS 50 FS										
YHS 50 FI										
YHS 50 TU										

### INDUSTRY-LEADING SILL FLASHING DESIGN

Taller back leg - Enhanced water resistance (12 psf)



No blind seals - Eliminates secondary penetration of the sill flashing

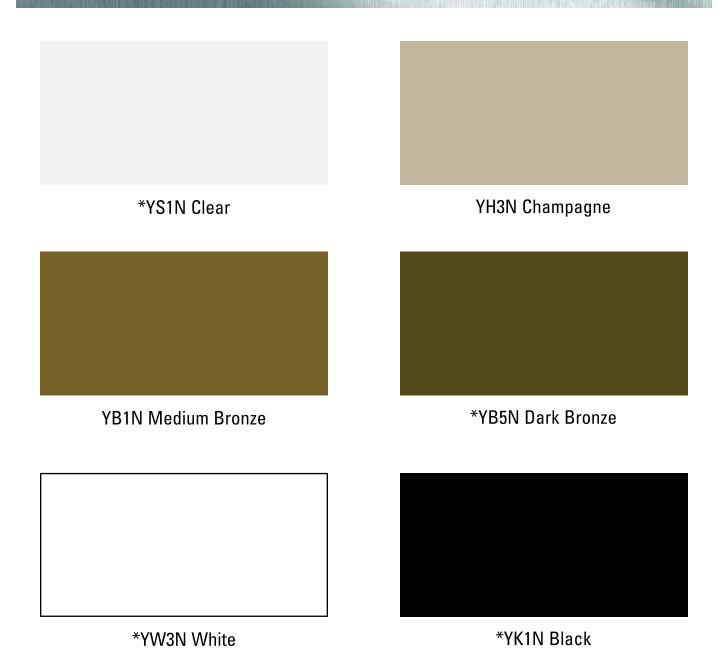


For additional information on architectural aluminum products visit our web site at www.ykkap.com.

### YKK AP Anodized Plus®



### Standard Matte Finish



<sup>\*</sup>Normally in stock for quick delivery, consult your local YKK AP Service Center for availability.

The color samples shown on this page are reproduced as closely as possible to the actual YKK AP Anodized Plus® colors and are to be used only as a guide. For actual anodized aluminum samples contact your local YKK AP sales representative at 1-800-955-9551 or www.ykkap.com.

Anodized Plus® is a registered trademark of YKK AP America Inc.



What is Anodized Plus®? It is more innovation from YKK AP. Anodized Plus provides a unique protective seal on anodic finishes. Its anodic coating combined with an organic seal offers the dual benefits of enhanced durability and resistance to staining and degradation.

Conventional anodic coatings rely on hot water or steam sealing to close the porous anodic layer; however, it is not possible to close every pore using this process. YKK AP Anodized Plus replaces the conventional sealing process with a unique non-aqueous, electrodeposited organic seal that provides complete protection for the anodic oxide and the pigmentation coating.

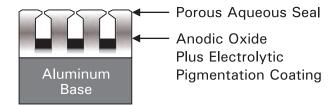
YKK AP controls every step in the manufacturing process under one roof. To ensure the quality and the integrity of the aluminum alloy we cast our own aluminum logs for extrusion. Our method of electrolytic coloring by vertical immersion provides unmatched color consistency and eliminates the need for color range samples. The colors available are white, black, clear, champagne, medium and dark bronze.

YKK AP Anodized Plus meets all of the requirements for the newest standard for anodized finishes, AAMA 612. To ensure that the anodized finish on your next project meets your aesthetic requirements and stands up to chemicals commonly found on construction sites and harsh environments specify AAMA 612 — specify YKK AP Anodized Plus.

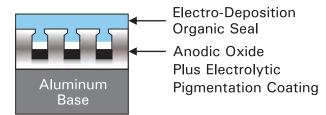
## Introduction to YKK AP Anodized Plus®

### Conventional Anodized VS. YKK Anodized Plus®

### **Conventional Anodized Finish**



### YKK Anodized Plus® Finish



The synergistic effects of this new aluminum finish result in important advantages:

- Increased resistance to chemical corrosion.
- ◆ Superior color and gloss retention.
- Enhanced protection of aluminum substrate.
- 10 Year Warranty on YS1N (Clear), YH3N (Champagne), YB1N (Med. Bronze), YB5N (Dk. Bronze) & YK1N (Black).

See YKK AP Anodized Plus brochure for more information.

### Mortar Resistance & CASS Corrosion Resistance Test

	YKK AP Anodized Plus®	Standard Anodized Coating
Mortar Resistance AAMA 2605 (24 Hour Pat Test)		
CASS Corrosion Resistance ASTM B368 (CASS 240 Hours)		

This brochure is intended for product information only. Contents are subject to change without notice and should not be construed as representations or warranties.





Ross Dress for Less, Hvattsville, MD

# SUPER LUMIDECK FLAT SOFFIT HANGER ROD CANOPIES

### An All Extruded Hanger Rod Canopy Solution

The Super Lumideck Flat Soffit hanger rod canopy is an all extruded pre-engineered canopy designed for high load architectural applications. The Flat Soffit deck style provides an aesthetic ceiling look and achieves a clean and minimalistic design for any canopy application. Deck profiles can be combined with differing fascias to complement any design emphasis or building requirement. Mapes aluminum non-rusting finish will have a much longer life span as compared to the typical field painted finishes used on structural steel canopies. The all extruded design provides a solution for both high snow drift loads and hurricane force winds.

888-273-1132 www.mapescanopies.com

### **APPLICATIONS**

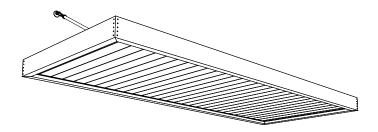
Retail Branding Shopping Centers Storefronts Parking Garages Historical Renovation

### **FEATURES**

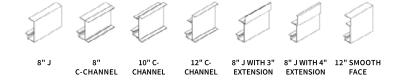
Flat Soffit Decking
High Load Capacity
Pre-engineered
All Aluminum Canopy
All Extruded Canopy
Custom Details
Custom Colors

### SUPER LUMIDECK FLAT SOFFIT

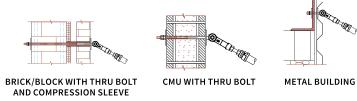
### **CANOPY DETAILS**



### **FASCIA OPTIONS**



### WALL MOUNT DETAILS

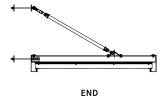


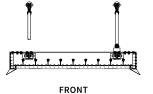


### **DECK OPTIONS**



### **SECTION DETAIL**









### Mapes Canopies, LLC

7748 North 56th Street / Lincoln, NE 68514 888-273-1132 / 877-455-6572 fax

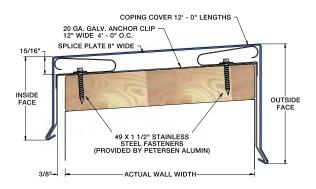
canopy@mapes.com / www.mapescanopies.com

Joppatown Storage Joppa MD

## PAC-TITE COPING

### EXISTING SLOPE W/NAILER VERSION





### PRODUCT FEATURES

- Superior, efficient design for ease of installation
- ▶ Accommodates wall widths up to 34"
- Extensively tested for reliable long-term performance
- ▶ Snap-on design eliminates field-crimping
- Concealed splice plates provide watertight installation
- Pre-fabricated miters and accessories for proper system fit
- Custom fabrication available for job-specific details
- Stainless steel springs factory attached to 12" wide, pre-punched anchor clips
- Wide variety of colors, finishes and gauges
- Convenient 12' lengths
- ▶ Recyclable material
- ▶ Custom and radius capabilities available
- ▶ All fasteners, splice plates and anchor clips are included

### MATERIALS

- ▶ 15 Stocked PAC-CLAD Finishes (22 gauge steel)
- ▶ 43 Stocked PAC-CLAD Finishes (24 gauge steel)
- ▶ 22 Stocked PAC-CLAD Finishes (.040 aluminum)
- 29 Stocked PAC-CLAD Finishes (.050 aluminum)
- ▶ 6 Stocked PAC-CLAD Finishes (.063 aluminum)
- ► Mill Finish Aluminum (.040, .050 & .063 aluminum)
- ► Clear and Colored Anodized (.040, .050 & .063 aluminum)

### ACCESSORIES

- Miters (90 Degrees and Non-90 Degrees, Welded or Quicklocked)
- ▶ Transitions
- ▶ Endcaps
- ▶ Endwall Flashing

### **TESTING**

- ANSI/SPRI/FM ES-1 Standard to comply with the International Building Code
- ▶ Factory Mutual approved
- Miami-Dade Approved to comply with the High Velocity Hurricane Zone of the Florida Building Code.

### WARRANTY

A 20-Year, 120 mph Wind Warranty is available on orders to meet a project's specification. It provides a maximum of 20 years, 120 mph coverage for the repair or replacement of any portion of the roof edge system that has failed due to a defect in the supplied materials.







Color Guide

PAC-CLAD.COM

# Premium Colors



Kynar 500° or Hylar 5000° pre-finished steel and aluminum for roofing, curtainwall and storefront applications.



▲ Cool Colors

● Metallic Colors ★ ENERGY STAR® Colors \$Pricing 

See back for color availability chart.

# Standard Colors





PAC-CLAD.COM

# PAC-CLAD® Color Availability

PAC-CLAD	REFLECTIVITY	EMISSIVITY	3 YEAR	SRI	TZ	EEL	ALUMINUM				ENERGY
STANDARD COLORS	KEFLEGIIVIIY	EMI22IAIIA	EXPOSURE	241	24 GA.	22 GA.	.032	.040	.050	.063	STAR
AGED BRONZE	0.29	0.86	N/A	29	~						
ALMOND	0.53	0.87	0.52	62	~	~	~	~	~		*
ARCADIA GREEN	0.31	0.88	0.32	32	~		~				*
AWARD BLUE	0.21	0.86	0.20	17	~		~		~		
BERKSHIRE BLUE*	0.26	0.87	0.25	25	~						
BLACK ALUMINUM**	0.20	0.86	N/A	17			~	~	~	~	
MATTE BLACK STEEL**	0.22	0.87	0.21	20	~	~					
BONE WHITE	0.67	0.86	0.64	81	~	~	~	~	~	~	*
BURGUNDY	0.24	0.87	0.23	23	~		~		~		
BURNISHED SLATE	0.32	0.86	N/A	33	~						
CARDINAL RED	0.37	0.86	0.36	39	~		~		~		*
CHARCOAL	0.27	0.87	0.27	27	~		~		~		*
CITYSCAPE	0.44	0.86	0.43	49	~	~	~	~	~		*
COLONIAL RED	0.32	0.88	0.32	34	~		~	~	~		*
DARK BRONZE	0.26	0.85	0.24	24	~	~	~	~	~	~	*
EVERGREEN	0.27	0.86	0.25	26	~				-	-	*
FOREST GREEN	0.10	0.87	0.10	6	~	~		~			
GRANITE*	0.32	0.87	0.33	33	~	~	~	~	~		*
GRAPHITE	0.29	0.86	N/A	29	~	·	•	Ť	_		
HARTFORD GREEN	0.29	0.86	0.30	29	~		~	~	~		
HEMLOCK GREEN	0.29	0.86	0.30	29	~		~	_	~		*
HUNTER GREEN	0.27	0.86	0.26	26	~				_		*
NTERSTATE BLUE	0.13	0.87	0.20	8			~				
	0.13	0.86	0.12	29	<b>*</b>				<b>*</b>		*
MANSARD BROWN			0.27		~	~	· ·	· ·	<b>*</b>		*
MEDIUM BRONZE	0.26	0.88		26	~	~	~	~	~	~	×
MIDNIGHT BRONZE	0.06	0.88	N/A	0	~			~			
MILITARY BLUE	0.29	0.87	0.28	29	~		<b>~</b>				*
MUSKET GRAY	0.31	0.87	0.30	32	~	~	~		~		*
PATINA GREEN	0.33	0.86	0.32	34	~		~				*
SANDSTONE	0.49	0.87	0.49	56	~	~	~	~	~	~	*
SIERRA TAN	0.36	0.87	0.36	39	~	~	~	~	~		*
SLATE BLUE	0.25	0.87	0.24	24	~		~				*
SLATE GRAY	0.37	0.88	0.36	40	~	~	~	~	~		*
STONE WHITE	0.64	0.87	0.61	77	~	~	~	~	~	~	*
ΓEAL	0.26	0.87	0.26	25	~		~				*
TERRA COTTA	0.36	0.88	0.35	39	~		~		~		*
PAC-CLAD PREMIUM COLOF	RS.										
AGED COPPER	0.26	0.87	0.25	25	~		~		~		*
ANODIC CLEAR	0.54	0.81	N/A	61				~			
CHAMPAGNE	0.40	0.82	0.36	42	~		~	~	~		*
COPPER PENNY	0.47	0.87	0.44	53	~		~	~	~		*
SILVER	0.49	0.81	0.46	54	~	~	~	~	~		*
SILVERSMITH	0.53	0.81	N/A	60				~			
WEATHERED COPPER	0.45	0.88	N/A	51	~						
WEATHERED STEEL	0.32	0.89	N/A	34	~						
WEATHERED ZINC	0.26	0.82	0.23	23	~	~	~		~		*
ZINC	0.33	0.88	0.32	35	~		~	~	~		*
CLEAR-COAT ACRYLIC FINIS	SH (NUN-KYNAR)										
GALVALUME PLUS	0.68	0.14	0.55	57	~	~					

PAC-CLAD Premium finishes are available from stock at a moderate extra cost. PAC-CLAD Copper Penny is a Non-Weathering finish. Solar Reflectance Index calculated according to ASTM E-1980. \*Low Gloss/Low Sheen, full 70% PVDF finish \*\* Appearance differs for Black Aluminum and Matte Black Steel

### ENERGY STAR PERFORMANCE CRITERIA:

Emissivity uses ASTM C1371 Reflectivity uses ASTM C1549.  $\begin{tabular}{l} \textbf{TECHNICAL DATA FOR KYNAR 5000/HYLAR 5000 COATING:} \end{tabular}$ 

- South Florida Exposure: Color (ASTM D 2244) No more than 5ΔE
   Hunter units at 20 years; Chalk (ASTM D 4214) Rating no less than 8 at
   20 years; Film integrity 20 years.
- Accelerated Weathering (ASTM D 4587, ASTM G 154): 5000 Hours;
   Chalk, per ASTM D 4214, rating of 6 or better; Color, per ASTM D 2244,
   5ΔE (Hunter Units) color change.
- Humidity Resistance (ASTM D 2247): Galvalume or HDG, 100% RH, 2000 hours – No field blisters; Aluminum, 100% RH, 3000 hours – No field blisters
- Salt Spray Resistance (ASTM B 117): Aluminum, 3000 hours, Galvalume or HDG, 1000 hours – Creep from scribe no more than 1/16", no field blisters
- Chemical/Acid Pollution Resistance (ASTM D 1308): Pass
- ► T-Bend (ASTM D 4145): 1T 3T with no loss of adhesion
- ▶ Pencil hardness (ASTM D 3363): HB 2H
- ▶ Specular Gloss (ASTM D 523) @ 60 degrees: Typical 20 35
- Abrasion Resistance (ASTM D 968): 67 +/- 10 liters
- Cross Hatch Adhesion (ASTM D 3359): No loss of adhesion
- Reverse Impact (ASTM D 2794): Galvalume or HDG, 2x metal thickness inch-pounds, no loss of adhesion; Aluminum, 1.5x metal thickness inch-pounds, no loss of adhesion
- ▶ Flame Test (ASTM E 84): Class A Coating

# sto \_\_\_\_

### StoPowerwall® ci

Portland cement stucco with continuous air and moisture barrier, continuous insulation, cavity wall design, and high performance finish



1)	Dow Type IV XPS Insulation Board
2)	Substrate: Glass mat gypsum sheathing in compliance with ASTM C 1177 (or building code compliant wood-based sheathing - Type V construction only)
3)	StoGuard® Air and Moisture Barrier
4)	Code compliant paper or felt WRB
5)	Sto DrainScreen drainage mat
6)	Code compliant miniumum 2.5 lb/yd² (1.4 kg/m²) self-furred galvanized steel diamond mesh metal lath
7)	ASTM C 926 compliant stucco (as manufactured or listed by Sto Corp.)
8)	Sto primer (optional)
9)	Sto Textured Finish

### **System Description**

StoPowerwall ci is an energy efficient stucco wall assembly with a continuous air and moisture barrier and continuous insulation. It combines the strength and durability of traditional stucco with an advanced cavity wall design and Sto high performance finishes.

### Uses

StoPowerwall ci can be used in residential or commercial wall construction where energy efficiency, superior aesthetics, and air and moisture control are essential in the climate extremes of North America

Properties				
Weight (excluding sheathing / studs)	< 12 psf (56.6 kg/m²)			
Assembly Thickness (from exterior stud face)	Nominal 3-5/8" (92 mm) w 2" (51 mm) XPS			
R-value (insulation)	5 – 10 ft²•h•°F / Btu (0.88 – 1.76 m²•K / W)			
Wind Load Resistance	Capable of achieving: +65, -48 psf (+3.11 to -2.29 kPa)			
Compliance	<ul><li>IBC, IRC, and IECC</li><li>ASHRAE 90.1-2010</li></ul>			
Construction Types, Fire Resistance	<ul> <li>I-V, NFPA 285 tested for types I-IV</li> <li>ASTM E119 1 hour rated assembly</li> </ul>			

### Warranty

Up to 12 year Limited Warranty available on Sto products, depending on options selected. 50 year thermal performance warranty available from Dow Building Solutions on XPS insulation.

### Maintenance

Requires periodic cleaning to maintain appearance, repair of cracks and impact damage if they occur, recoating to enhance appearance of weathered finish. Sealants and other façade components must be maintained to prevent water infiltration.

### Limitations

Minimum insulation board thickness: 1 inch (25 mm). Maximum insulation board thickness: 2 inches (51 mm). Minimum stucco thickness: 3/4 inch (19 mm). Maximum stucco thickness: 7/8 inch (22 mm)

Fire resistance rated assemblies limited to 2 inch (51 mm) maximum insulation board thickness over non-load bearing steel frame.





### StoPowerwall ci

Portland cement stucco with continuous air and moisture barrier, continuous insulation, cavity wall design, and high performance finish

Wind load resistance: +65, -48 psf (+3.11, -2.29 kPa). Ultimate wind load resistance also depends on sheathing, sheathing attachment, stiffness of supporting construction, and strength characteristics of stucco mix. Test assembly if necessary to verify wind load resistance is in conformance with local code requirements. Design for maximum allowable deflection of L/360.

Cracking can occur in portland cement stucco. Cracking is generally not caused by a material defect in the stucco and can be minimized by following sound design and construction practices such as: proper installation of lath, proper incorporation of stress relief joints in the construction, proper sand gradation for field mixed stucco, proper proportioning of stucco mix ingredients, use of the minimum amount of water in the stucco mix for placement of stucco, avoiding the use of excess water, moist curing of the stucco after it has been applied, and proper sequencing of construction to avoid stresses in the freshly placed stucco

Efflorescence is a normal occurrence in portland cement-based products and can affect final appearance of finish products.

For use on vertical above grade walls only. Do not use below grade or on roofs or roof-like surfaces.

Insulation material is flammable. Keep away from flame, ignition sources, and high heat (temperatures in excess of 165°F [74° C]). A 15 minute thermal barrier (typically ½ inch drywall) is required by most building codes to separate the insulation from the interior.

Dark or highly saturated finish colors may require added maintenance compared to light or pastel colors

Air Barrier, insulation board, drainage mat, and base coat materials are not intended for prolonged weather exposure. Refer to component product bulletins for specific limitations involving exposure, use, handling and storage of component materials.

### Sustainable Design

### Air Quality and VOC Compliance

All finish coatings, adhesives, air barrier joint treatments and coatings meet US EPA (40 CFR 59) and SCAQMD (Rule 1113) emission standards for architectural coatings.

### LEED Credit Eligibility

- Energy and Atmosphere (EA)
- Materials and Resources (MR)
- Innovation in Design (IA)

innovation in Bedign (in)				
Regulatory Compliance and Standards Testing				
Refer to ICC ESRs 2323, 1607, and 2781 for code compliance	Stucco base material is in compliance with ASTM C 926 when installed at a minimum thickness of ¾ inch (19 mm) in 2 coats to code compliant frame wall assemblies			
ICC ESR No. 1233 covering StoGuard Air & Moisture Barrier	Complies with 2006, 2009, 2012 IBC, IRC and IECC			
ASHRAE 90.1-2010 <sup>1</sup>	Complies with Section 5, Building Envelope, air barrier and continuous insulation requirements			
ASTM 2357 <sup>2</sup>	Air/Moisture barrier meets air leakage resistance criteria of $\leq$ 0.04 cfm/ft <sup>2</sup> at 1.57 psf (0.2 L/s•m <sup>2</sup> at 75 Pa)			
NFPA 285 <sup>3</sup>	Meets flame propagation criteria for use on Types I, II, III, IV construction with up to 2 inches (51 mm) of Dow Type IV XPS insulation board			
ASTM E 119⁴	Meets requirements for 1 hour rating over nonload-bearing fire-resistance-rated construction			

- Energy Standard for Buildings Except Low-Rise Residential Buildings
- Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components
- $4.\,$  Standard Test Methods for Fire Test of Building Construction and Material

### Sto Corp.

3800 Camp Creek Parkway Building 1400, Suite 120 Atlanta, GA 30331

Tel: 404-346-3666 Toll Free: 1-800-221-2397 Fax: 404 346-3119

www.stocorp.com

### SB - S507i Revision: 000 Date: 10/2014





### Attention

Sto products are intended for use by qualified professional contractors, not consumers, as a component of a larger construction assembly as specified by a qualified design professional, general contractor or builder. They should be installed in accordance with those specifications and Sto's instructions. Sto Corp. disclaims all, and assumes no, liability for on-site inspections, for its products applied improperly, or by unqualified persons or entities, or as part of an improperly designed or constructed building, for the nonperformance of adjacent building components or assemblies, or for other construction activities beyond Sto's control. Improper use of Sto products or use as part of an improperly designed or constructed larger assembly or building may result in serious damage to this product, and to the structure of the building or its components. STO CORP. DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED EXCEPT FOR EXPLICIT LIMITED WRITTEN WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS IN ACCORDANCE WITH STO'S WARRANTY PROGRAMS WHICH ARE SUBJECT TO CHANGE FROM TIME. For the fullest, most current information on proper application, clean-up, mixing and other specifications and warranties, cautions and disclaimers, please refer to the Sto Corp. website, www.stocorp.com.





# StoColor | Classic Collection



### Please note

The colors presented on this chart are representations. Actual color of manufactured product may vary slightly from the chart. Color perception is affected by degree of gloss, texture, and lighting conditions. For best results always request a product sample, select color under natural lighting conditions, and construct full scale job site mock ups for final color approval.

Minor shade variations may occur from batch to batch (refer to batch no. on pail). Avoid installing separate batches side-by-side and avoid application in direct sunlight. Avoid installing new finish adjacent to weathered or aged finish. Sto Corp. will not be responsible for shade or color variation from batch to batch. variation caused by application or substrate deficiencies, or fading resulting from natural causes such as weather. See Sto Tech Hotline Nos. 0694-C. 0893-EC and 1202-CF for helpful tips on prevention of color problems.

For Continuous Insulation Systems select colors with light reflectance value of 20 or greater.

### Notas

Los colores que aparecen en este muestrario son representaciones. El color real del producto puede variar ligeramente con el del muestrario. El color percibido es afectado por el grado de brillantez, la textura y las condiciones de luz. Para la obtencion de los mejores resultados, deberá siempre solicitar una muestra del producto, seleccionar el color bajo condiciones de luz natural, y elaborar muestras en la obra misma para la aprobación final del color.

Pueden presentarse pequeñas variaciones en el tono, de remesa a remesa (favor de referirse al numero de remesa en la cubeta). Evite aplicar adiuntas remesas diferentes, así como a la luz solar directa. Igualmente, evite aplicar el acabado nuevo adjunto a acabados viejos o intemperizados. Sto Corp. no se responsabiliza por la variación en color o tono de remesa a remesa, al método de aplicación, deficiencias en la base, o por decoloración debido a causas naturales como el clima. Favor de consultar a los Nos. 0694-C, 0893-EC y 1202-CF de Sto Tech Hotline para recibir indicaciones para prevenir problemas.

Para Sistemas de Aislamiento Térmico por el Exterior, seleccione colores con un valor reflejante de luz del 20 o mayor.

### Sto's Classic **Color Collection**

This is a selected group of colors from the StoColor System. The Classic Color Collection represents traditional favorites for North America. For additional colors, refer to our entire StoColor System with 800 standard colors. Explore your creative freedom with the varied textures in which all Sto colors are available. To learn more about the solutions Sto can provide for you, contact us by calling 1-800-221-2397 or log on at www.stocorp.com.

### StoColor System

- Quick and easy to understand thanks to a clear, logical system construction
- Reliable application of design through a harmonic, finely nuanced selection of colours for facade and interior use
- Ergonomic perception oriented presentation media for all phases of colour design

### Colección Clásica de Color de Sto

Este es un surtido selecto de colores del Sistema StoColor. Esta Colección Clásica representa los colores preferidos en Norte America. Para colores adicionales, refierase a la colección completa StoColor System de 800 colores. Pruebe su creatividad con las variedades de texturas en las cuales todos los colores Sto están disponibles. Para aprender más sobre las soluciones que Sto puede proporcionar, comuníquese al 1-800-221-2397 o visite www.stocorp.com.

### Sistema StoColor

- · Rápido y fácil de comprender, debido a su presentación clara y lógica
- Aplicación precisa para el diseño a través de una selección de colores harmónia y a la medida, tanto para interiores como exteriores
- Presentación ergonómica, orientada hacia todas las fases del diseño del color

### Guide to symbols

### Explicación de los símbolos

31437 **■** 73 ★



### Color No.

Color code/Order No.

Número del tono de color Código color/Número de pedido

- \* Please note that certain dark and/or saturated colors may incur increased costs due to high tint charges.
- \* Tenga presente que ciertos colores oscuros v/o saturados pueden incurrir en mayores costos debido a los elevados precios de los colorantes.

### Light reflectance value

Value for the quantity of light reflected from the surface. Measured in percent 100 % = white, 0 % = black

### Valor Reflejante de Luz

Valor, en por ciento, que mide la cantidad de luz reflejada por la superficie. 100 % = blanco, 0 % = negro

### Most Popular Textures; Texturas más populares

Milano



### Medium



Freeform (custom texture)



### Milano

Stolit® .75

Stolit® Milano

Stolit® Lotusan® 1.0

### Fine

Stolit® 1.0 Sto Essence Fine Sand Finish

Sto Powerflex® Silco Fine Sto Powerflex® Fine

Sto Powerwall™ Fine Finish

Sto Powercryl™ Fine Finish

### Swirl

Stolit® R1.5 Sto Essence Swirl Finish Sto Powerflex® Silco Swirl

Sto Powerflex® Swirl

Sto Powerwall™ Swirl Finish Sto Powercryl™ Swirl Finish







### Medium

Stolit® Lotusan® 1.5 Stolit® 1.5 Sto Essence Medium Sand Finish Sto Powerflex® Silco Medium Sto Powerflex® Medium Sto Powerwall™ Medium Finish Sto Powercryl™ Medium Finish

### Freefrom

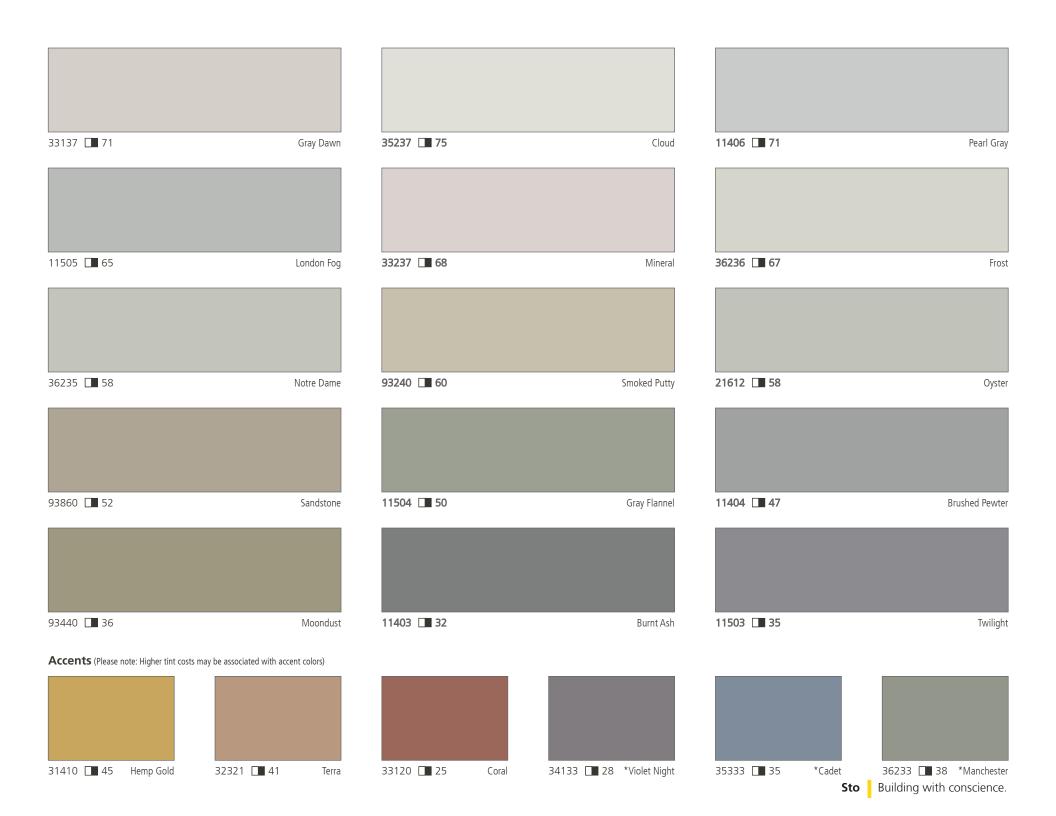
Stolit® Lotusan® Freefrom Stolit® Freeform Sto Powerflex® Silco Freeform Sto Powerflex® Freeform Sto Powerwall™ Freeform

### Limestone

Sto Limestone Finish

Sto Powercryl™ Freeform

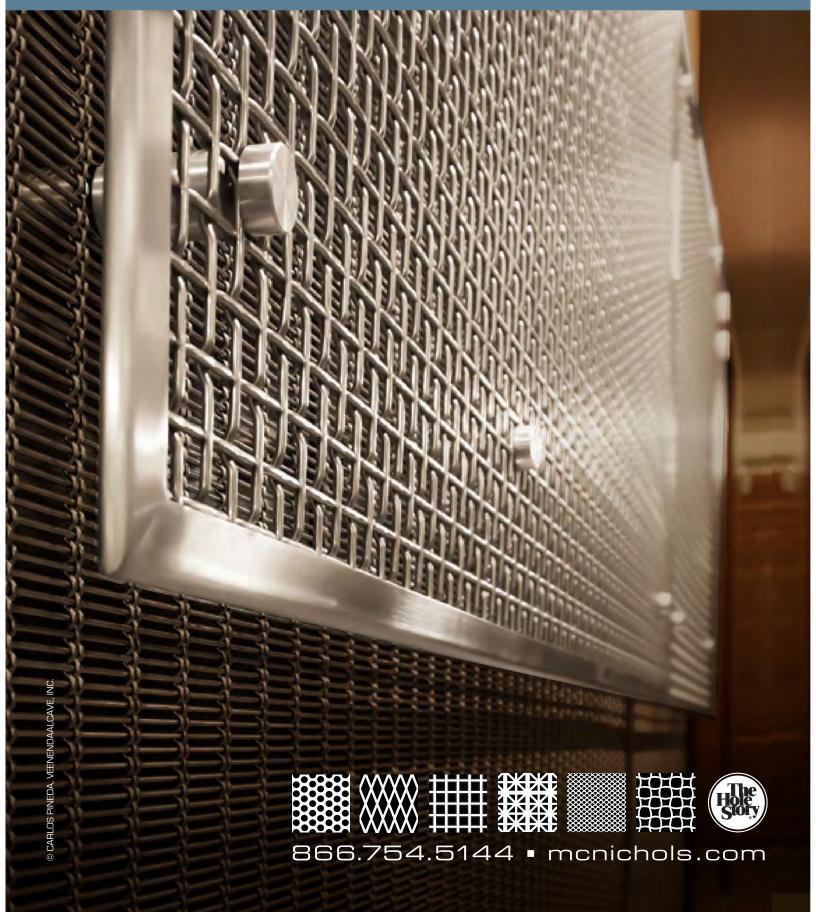






# McNICHOLS® DESIGNER METALS

DESIGN WITH METALS IN MIND.



### The Hole Story®



The sole survivor of a Boeing B-17 Flying Fortress shot down over Germany during World War II, Robert L. "Bob" McNichols pledged to lead his life and business according to Christian principles. He believed in the highest level of service, a dedication to his employees and an appreciation for the customers he had the privilege to serve.

Following discovery by a German farmer, Bob was sent to prisoner-of-war camp Stalag Luft I, where he remained until his liberation on May 1, 1945. Seven years to the day after his release from Stalag Luft I, Bob and his wife Phyllis founded **McNICHOLS CO.** 

When Bob started the business in 1952, he focused on selling products with "holes" such as Perforated and Expanded Metal. This focus led to the motto "The Hole Story®," which symbolizes the company's philosophy as well as its products. Bob trademarked "The Hole Story®" and advertised it in the 1975 McNICHOLS® Master Catalog. This began the tradition of "hole" references such as "Hole Products" and "The Hole Team."

After the loss of Bob in 1981, his son Gene took over leadership of the company. Gene carried on his father's legacy by growing the company and focusing on customer service.

In 1990, Gene introduced the "Service, Quality and Performance" mission. The words embody the spirit of the organization—including its emphasis on customer service, high standards for quality, which the ISO 9001:2008 certification demonstrates, and dedication to performance.

McNICHOLS has grown from a small family business to a national corporation with 18 locations across the country. The essence and spirit of the founder remain ever-present. Bob's faith gave him the courage to build McNICHOLS on a Christian foundation. "To God be the Glory!" was one of his favorite sayings.

As McNICHOLS celebrates its 65th anniversary, the third generation of the McNichols family—as well as The Hole Team— act as stewards of Bob's legacy. "Service, Quality and Performance" ... That's The Hole Story.

Inspired to Serve!

# OUR ARCHITECTURAL PRODUCTS TEAM IS Inspired to Serve!

Architects, contractors and designers choose to incorporate **McNichols®** Designer Metals into their projects because the product versatility and beauty. Selections include Perforated and Expanded Metal, Wire Mesh and Textured Metals in a myriad of materials and styles.

Our Architectural Products Team understands how options like configuration, material type, gauge, open area, recycled content, finish and other variables may influence your design for a successful project. We are ready and Inspired to Serve® you!

ON THE COVER. To recreate the beautiful and sophicated look like that of the AECOM offices in Atlanta, GA, simply specify **McNICHOLS**® Designer Mesh, TECHNA<sub>TM</sub> 8165, Stainless Steel Type 316, 70.2% Open Area (top panels) and **McNICHOLS**® Designer Mesh, AURA<sub>TM</sub> 8858, Stainless Steel Type 304, 51% Open Area (bottom panels).

### McNICHOLS® FABRICATION SERVICES

PRINT TAKEOFFS • CUT-TO-SIZE • NOTCHING • EDGING WELDING • INFILL PANELS • STAIR TREADS • METAL FINISHES

For 65 years, customers have made the repetitive choice to trust **McNICHOLS** with their Hole Product needs. Many customers also look to us for metal processing and fabrication services. We would be honored to show you how we can expand our services to meet your application requirements. From welding and cut-to-size to notching and stair treads, we are ready to fabricate Hole Products to your specifications.

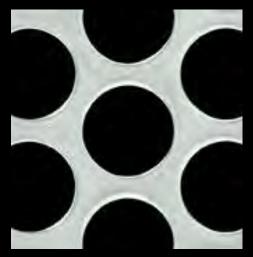


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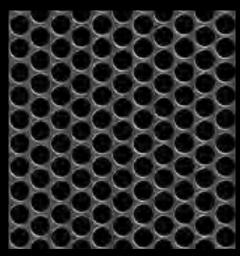
Please note that product photographs are not actual size. Application photos reflected are typical of Hole Products in use that can be supplied or have been supplied by MoNICHOLS CO. Some illustrations may depict uses designed. manufactured. fabricated or installed by others

McNICHOLS CO. is ISO 9001:2008 certified.

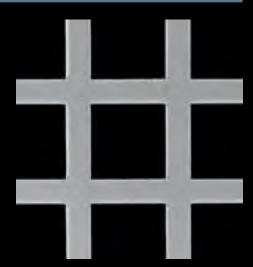
### McNICHOLS® PERFORATED METAL



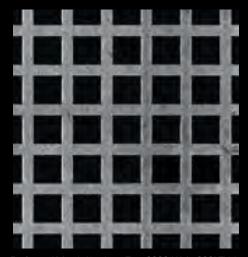
Perforated Metal, Stainless Steel Type 304, 11 Gauge, 1" Round on 1-1/4" Staggered Centers, 58% Open Area



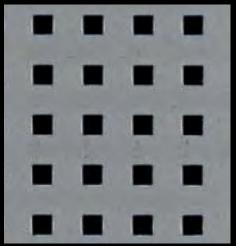
Perforated Metal, Carbon Steel Cold Rolled, 16 Gauge, 5/16" Round on 3/8" Staggered Centers, 63% Open Area



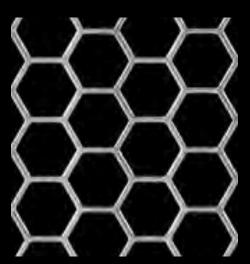
Perforated Metal, Carbon Steel Cold Rolled, 16 Gauge, 3/4" Square on 1" Straight Centers, 56% Open Area



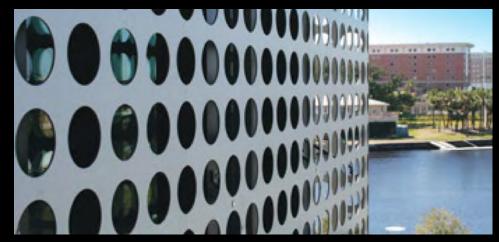
Perforated Metal, Aluminum Type 3003-H14, .063" Thick, 3/8" Square on 1/2" Straight Centers, 56% Open Area



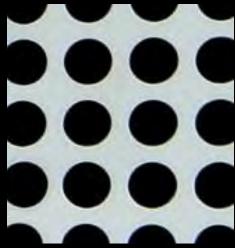
Perforated Metal, Carbon Steel,18 Gauge, .200" Square on 1/2" Straight Centers, 16% Open Area



Perforated Metal, Carbon Steel Cold Rolled, 16 Gauge, 1/2" Hexagonal on 9/16" Centers, 80% Open Area



Nearly 3,800 panels of **McNichols**® Perforated Metal, Aluminum Type 5005-H34, Anodized, .125" Thick, 3" Round on 4" Straight Centers, 45% Open Area, were used to create a facade for the Tampa Museum of Art.



Perforated Metal, Aluminum Type 5005-H34, .125" Thick, 3" Round on 4" Straight Centers, 45% Open Area

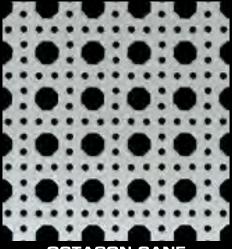


McNICHOLS® Hole Products are available in various material types. For additional details, we are available to assist you at 866.754.5144

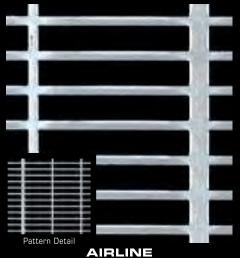
### McNICHOLS® DESIGNER PERFORATED METAL



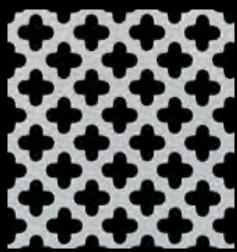
McNICHOLS® Designer Perforated Metal, OCTAGON CANE, Aluminum Type 3003-H14, Anodized, .032" Thick, 36% Open Area, was painted and used as cabinet inserts to give this kitchen a vintage touch.



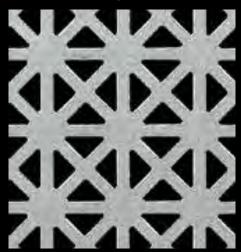
OCTAGON CANE
Aluminum Type 3003-H14, .032" Thick,
36% Open Area



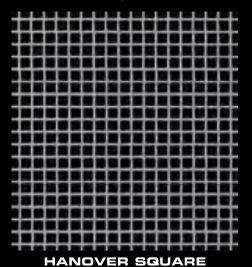
Aluminum Type 3003-H14, .040" Thick, 68% Open Area



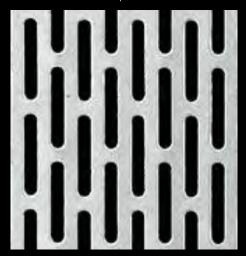
FULL CLOVERLEAF
Aluminum Type 3003-H14, .032" Thick,
51% Open Area



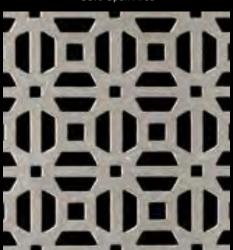
GRECIAN
Aluminum Type 3003-H14, .032" Thick,
35% Open Area



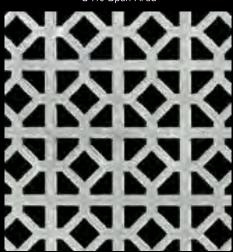
Carbon Steel Cold Rolled, 20 Gauge, 64% Open Area



MOIRE
Aluminum Type 3003-H14, .032" Thick,
41% Open Area

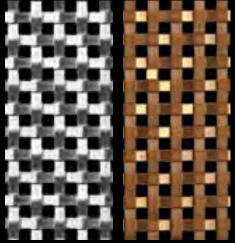


MOSAIC 3310 Carbon Steel Cold Rolled, 20 Gauge, 40% Open Area



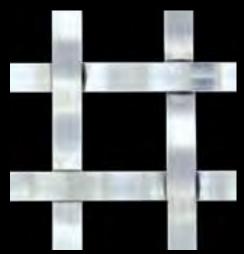
**WINDSOR**Aluminum Type 3003-H14, .040" Thick,
35% Open Area



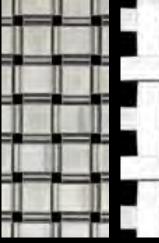


ASHLAND™ 2015 Stainless Steel Type 304, 27% Open Area

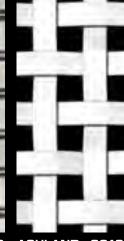
**ASHLAND BO17**Bronze,
27% Open Area



ASHLAND ™ 8015 Stainless Steel Type 304, 51% Open Area



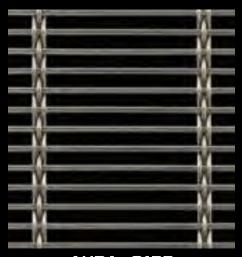
ASHLAND™ 8016 Stainless Steel Type 304, 6.6% Open Area



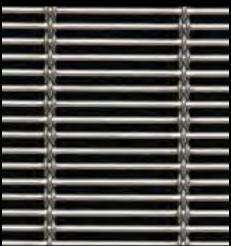
ASHLAND™ 8018 Stainless Steel Type 304, 27% Open Area



AURA™ 8150 Stainless Steel Type 316, 65% Open Area



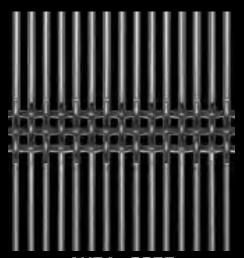
AURA™ 8155 Stainless Steel Type 304, 62% Open Area



AURA™ 8858 Stainless Steel Type 304, 51% Open Area



McNICHOLS® Designer Wire Mesh, AURA<sub>M</sub> 8857, Stainless Steel Type 304, 48% Open Area, was used to transform this airport information desk into a striking display.



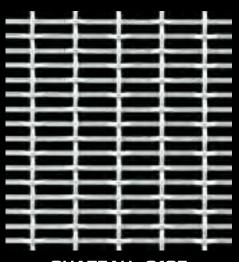
AURA™ 8857 Stainless Steel Type 304, 48% Open Area



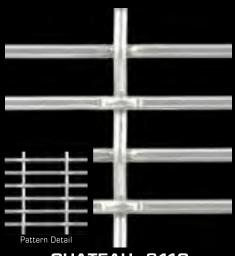
McNICHOLS® Hole Products are available in various material types. For additional details, we are available to assist you at 866.754.5144.



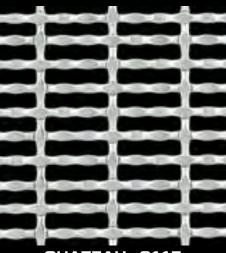
**McNichols** Designer Wire Mesh, CHATEAU $_{\text{\tiny M}}$  3105, Stainless Steel Type 304, 58% Open Area, used on this parking garage, adds beauty while allowing for passage of air and light.



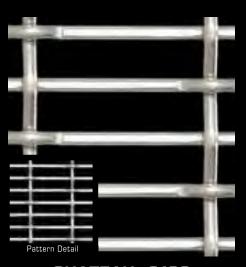
CHATEAU™ 3105 Stainless Steel Type 304, 58% Open Area



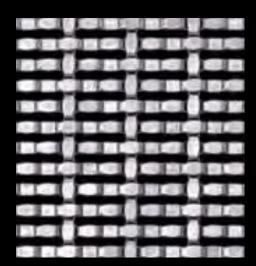
CHATEAU™ 3110 Stainless Steel Type 304, 67% Open Area



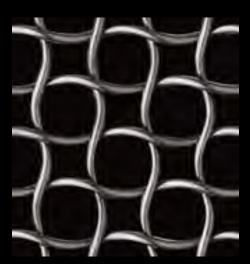
CHATEAU™ 3115 Stainless Steel Type 304, 56% Open Area



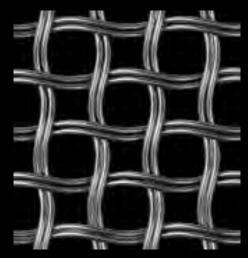
CHATEAU™ 3120 Stainless Steel Type 304, 66% Open Area



CHATEAU™ 8861 Stainless Steel Type 304, 27% Open Area

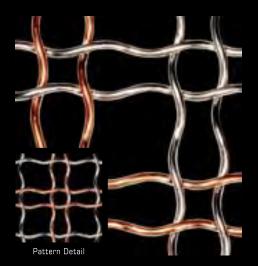


HALO™ 1162 Stainless Steel Type 304, 62% Open Area

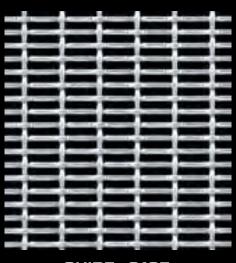


HALO™ 2252 Stainless Steel Type 304, 52% Open Area

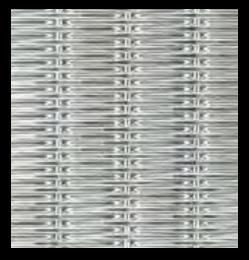




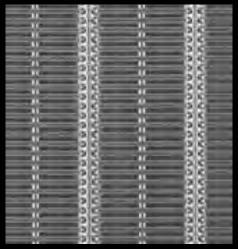
HALO™ 4474 Copper/Stainless Steel Type 304, 74% Open Area



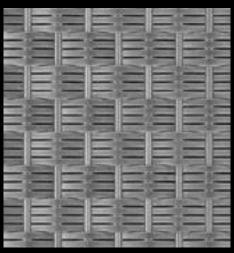
SHIRE™ 2105 Stainless Steel Type 304, 44% Open Area



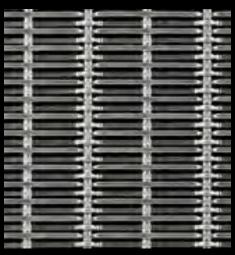
SHIRE™ 2130 Stainless Steel Type 304, 0% Open Area



SHIRE™ 2131 Stainless Steel Type 304, 0% Open Area



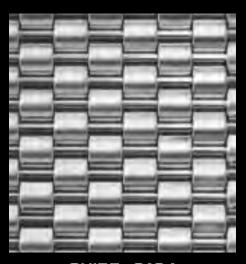
SHIRE™ 2136 Stainless Steel Type 304, 0% Open Area



SHIRE™ 2141 Stainless Steel Type 304, 32% Open Area



**McNichols** Designer Wire Mesh, SHIRE $_{\text{TM}}$  2134, Stainless Steel Type 304, 0% Open Area, was used in this airport setting as wall cladding for protection and aesthetic appeal.



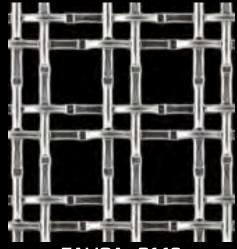
SHIRE™ 2134 Stainless Steel Type 304, 0% Open Area



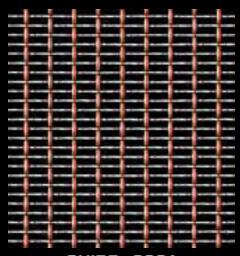
McNICHOLS® Hole Products are available in various material types. For additional details, we are available to assist you at 866.754.5144.



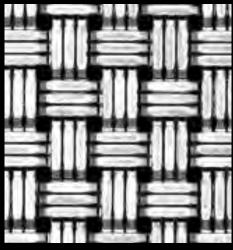
**McNichols** Designer Wire Mesh, TALICA $_{\text{\tiny M}}$  8146, Stainless Steel Type 304, 61% Open Area, ceiling tiles overlook the entryway of an art and design school in St. Louis, MO.



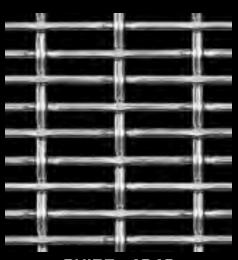
TALICA™ 8146 Stainless Steel Type 304, 61% Open Area



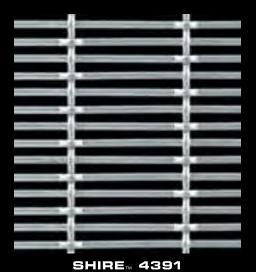
SHIRE<sub>TM</sub> 3001 Copper/Stainless Steel Type 304, 53.9% Open Area



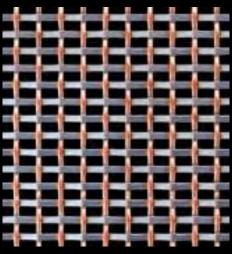
SHIRE™ 3300 Stainless Steel Type 304, 9.2% Open Area



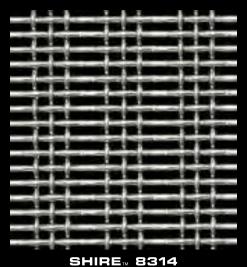
SHIRE™ 4243 Stainless Steel Type 316, 57% Open Area



Stainless Steel Type 316, 52% Open Area

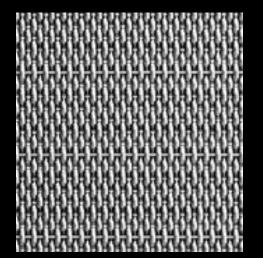


SHIRE™ 8148 Copper/Stainless Steel Type 304, 41% Open Area

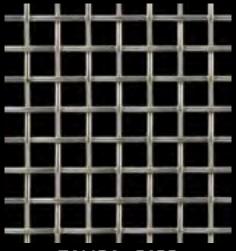


Stainless Steel Type 304, 43% Open Area

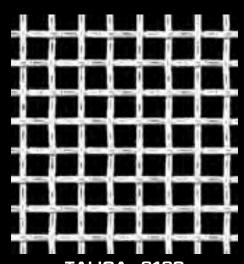




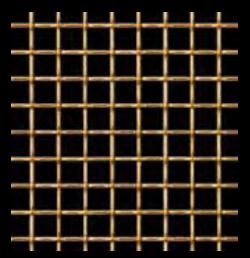
SHIRE™ 9240 Stainless Steel Type 304, 0% Open Area



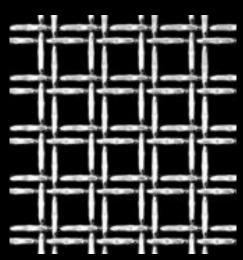
TALICA™ 2100 Stainless Steel Type 316, 64% Open Area



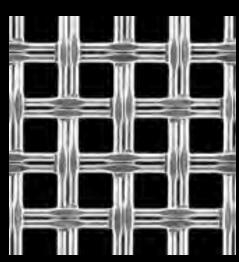
TALICA™ 2120 Stainless Steel Type 304, 56% Open Area



TALICA™ 4270 Bronze, 70.6% Open Area



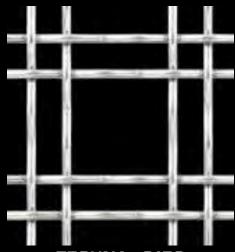
TALICA™ 8145
Stainless Steel Type 304, 53% Open Area



TALICA™ 8150 Stainless Steel Type 304, 46% Open Area



McNICHOLS® Designer Wire Mesh, TECHNA<sub>m</sub> 3150, Stainless Steel Type 304, 74% Open Area, makes an attractive railing of infill panels for this dormitory stairway at Walsh University.

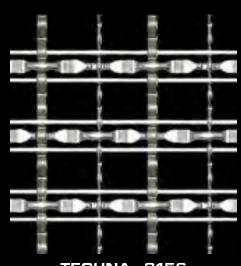


TECHNA™ 3150 Stainless Steel Type 304, 74% Open Area

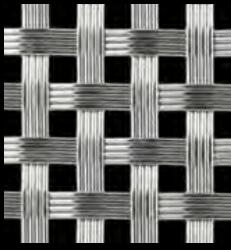




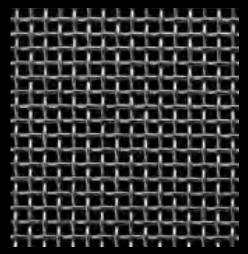
McNICHOLS® Designer Wire Mesh, TECHNA<sub>TM</sub> 3156, Stainless Steel Type 316, 61.2% Open Area, was specified for railing infill panels on the balconies of this Providence, RI, housing development.



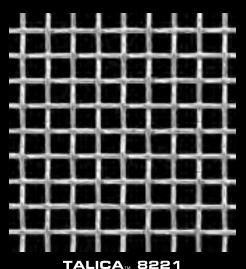
**TECHNA™ 3156**Stainless Steel Type 316, 61.2% Open Area



TALICA™ 8158 Stainless Steel Type 304, 34% Open Area



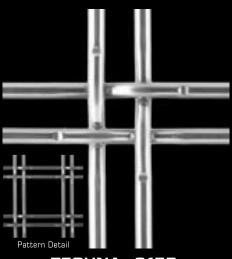
TALICA™ 8220 Stainless Steel Type 304, 45% Open Area



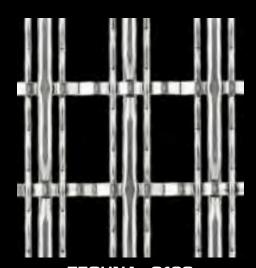
Stainless Steel Type 304, 55.9% Open Area



TECHNA™ 3100 Stainless Steel Type 316, 65% Open Area



TECHNA™ 3155 Stainless Steel Type 304, 75% Open Area

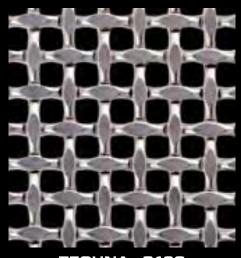


TECHNA™ 3162 Stainless Steel Type 304, 60.2% Open Area

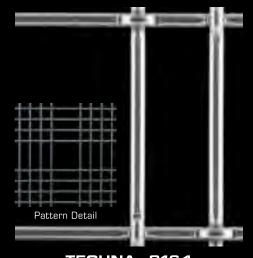




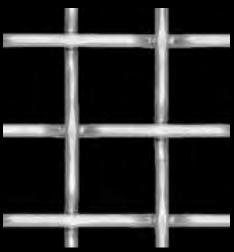
**TECHNA**™ **8159**Stainless Steel Type 304, 63.4% Open Area



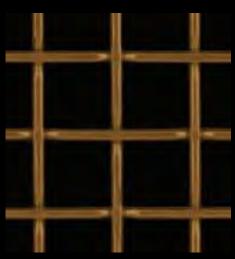
TECHNA™ 8163 Stainless Steel Type 304, 37% Open Area



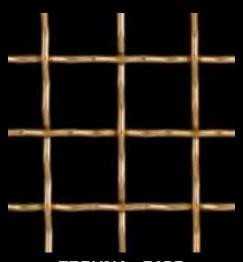
**TECHNA**™ **8164**Stainless Steel Type 304, 77.4% Open Area



TECHNA™ 8165 Stainless Steel Type 304, 70.2% Open Area



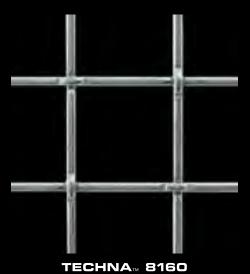
TECHNA™ 8168 Bronze, 74% Open Area



TECHNA™ 8169 Copper, 74% Open Area



McNichols® Designer Wire Mesh, TECHNA™ 8160, Stainless Steel Type 304, 82% Open Area, was specified for ceiling and display panels at the Yellowstone National Park Visitor Education Center.

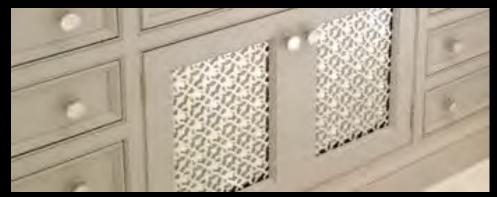


Stainless Steel Type 304, 82% Open Area



McNICHOLS® Hole Products are available in various material types. For additional details, we are available to assist you at 866.754.5144.

### McNICHOLS® DESIGNER PERFORATED GRILLES



McNICHOLS® Designer Perforated Grille, MAJESTIC, Stainless, Mirror Polish, 1" Pattern, 40% Open Area, is used as cabinet inserts to dress up this bathroom vanity.

Whether your goal is to replicate historic details or add something new, McNICHOLS® Designer Perforated Grilles will give your space timeless style.

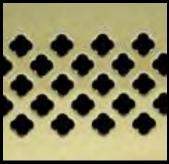
Available in a variety of materials and finishes, Perforated Grilles are perfect selections for walls, ceilings, window areas and more.



CATHEDRAL
Aluminum, Anodized, 2-1/4" x 2-3/16"
Pattern, 57% Open Area



CLASSIC Bronze, Satin, 1-5/8" x 1-5/16" Pattern, 58% Open Area



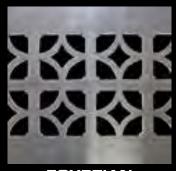
CLOVERLEAF Brass, Mirror Polish, 1/2" x 3/16" Pattern, 51% Open Area



CLOVER DREAM Stainless, Mirror Polish, 2-3/4" Pattern, 40% Open Area



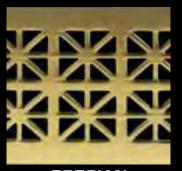
**DIAMOND**Aluminum, Satin, 1/4" Pattern with 1/4" Bar, 25% Open Area



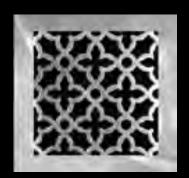
**EGYPTIAN**Stainless, Satin, 1" Pattern,
40% Open Area



GOTHIC Bronze, Satin, 1-1/16" Pattern, 58% Open Area



GRECIAN Bronze, Mirror Polish, 1-1/4" Pattern, 39% Open Area



MAJESTIC
Stainless, Mirror Polish,
1" Pattern, 40% Open Area



Stainless, Mirror Polish, 1-3/8" Circular Pattern, 54% Open Area



HALF SHELL
Aluminum, Baked Enamel, 1-5/16"
Pattern, 55% Open Area



SHELL Aluminum, Baked Enamel, 5/8" Pattern, 48% Open Area



### McNICHOLS® DESIGNER TEXTURED METALS



McNICHOLS® Designer Textured Metal, ENGINE TURN, Stainless Steel Type 304, Bright Annealed Finish, 22 Gauge, was used to give this table top a trendy look.

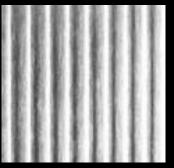
Busy locations like elevators, corridors and doorways demand a material that can disguise imperfections. **McNICHOLS**® Designer Textured Metal does the job with dimension and shine.

While little dings and scratches can disrupt flat, polished metals, damage to Textured Metals is much more difficult to recognize. Textured Metal surfaces can even hide fingerprints. They offer the added bonus of long-term savings as well. The material is strong, durable and built to withstand years of use.

Textured Metals come in a variety of patterns and materials, and are also eco-friendly. Made of 100% recycled content, they round out a sustainable project and can help garner LEED credits.



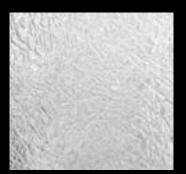
ENGINE TURN
Stainless Steel Type 304,
Bright Annealed Finish, 22 Gauge



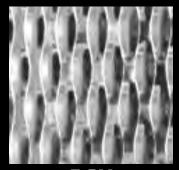
**CAMBRIDGE**Stainless Steel Type 304,
Satin #4 Finish, 20 Gauge



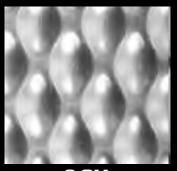
DIAMOND GUILT Stainless Steel Type 304, Satin #4 Finish, 3" Pattern, 22 Gauge



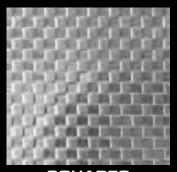
**LEATHER GRAIN**Stainless Steel Type 304,
Satin #4 Finish, 20 Gauge



5-SM Stainless Steel Type 304, Satin #4 Finish, 16 Gauge



**6-OM**Stainless Steel Type 304,
Satin #4 Finish, 16 Gauge



SQUARES Stainless Steel Type 304, Bright Annealed Finish, 22 Gauge



TREADTEX<sub>®</sub>
Aluminum Type 3003-H14,
2B Finish, .063" Thick



#### McNICHOLS ECO-MESH® MODULAR TRELLIS SYSTEMS



McNICHOLS ECO-MESH® Modular Trellis System was selected to add beauty and shade to a walkway at the H. Lee Moffitt Cancer Center's McKinley Outpatient Center in Tampa, FL.

#### McNICHOLS ECO-MESH®

Modular Facade and Trellis Systems is a custom framework grid typically wall-mounted to exterior structures creating aesthetic living green facades. Modular grids are commonly used for screen walls, canopies, arbors, partitions and column covers for exterior and interior applications. The panels may also be used for free-standing fencing partitions.

These high quality eco-panels are spaciously constructed to accommodate for the growth of various plants and vines. The woven Wire Mesh flexes to allow for increasing vine load as plants grow, while providing years of beauty and low maintenance.

#### McNICHOLS ECO-MESH®

offers architects, designers, contractors and property owners many aesthetic, sustainable and functional green-build opportunities, while being strong, durable, and lightweight.

ECO-MESH® panels are made with a strong .135" Thick woven Wire Mesh screen and a unique bridge wire for stabilization. The .135" Thick wire diameter is much stronger than .080" Thick wire found in competing products.

Our special intercrimp weave provides the flexibility plant screens require and eliminates broken welds that can occur with other brands.

The panels are framed on four sides with durable 16 gauge Galvannealed metal making it 25% more substantial and significantly more corrosion resistant than what is commonly found in other brands. Please allow us to supply you McNICHOLS ECO-MESH® for your next project!

#### QUALITY ADVANTAGES

Woven Wire	No welds to break
Galvannealed Frame/Wire	Superior corrosion resistance versus Galvanized G90 coated metals
.135" Thick Wire (Dia.)	Significantly stronger than .080" Thick wire found in other brands
Custom Panel Size	Up to 72" wide and 240" long
Durable Powder Coating	3,000 hour salt spray with high UV resistance
Install-Ready	Complete with mounting brackets
LEED Opportunities	95% recycled metal, no VOC concerns in field, SRI Index rated coatings and more



PRODI	ICT.	OPTI	$\cap$ NIS

Panel Height	24" up to 240"
Panel Width	24" up to 96"
Wire Diameter	.120 or.135" Thick
Weave Pattern	Woven Intercrimp Weave .135" Thick is standard, other weaves and diameters available
Bridge Wire	.105" Thick is standard
Square-Mesh Opening	1" x 1", 1-1/2" x 1-1/2", 2" x 2" (in stock) or 3" x 3"
Frame Depth	2" or 3", 16 gauge
Material Type	Galvannealed, Carbon Steel, Aluminum, Stainless Steel
Finish	Mill, sandblasted, 13 eco-friendly powder coating colors available
Square-Mesh Size	1" x 1", 1-1/2" x 1-1/2", 2" x 2" (in stock) or 3" x 3"

#### COLORS

202	2112
LIGHT GRAY	BROWN
EIGHT GHAT	DHOWN
GRAY	RED BRICK
TAN	RUST
REED GREEN	RED ORANGE
2000	
AGED COPPER	TEXTURED BLACK
TEXTURED FOREST GREEN	JET BLACK
-	Colors shown may vary slightly from actual color.



Custom colors available.

MOSS GREEN

#### McNICHOLS® PERFORATED METAL CASE STUDY

## THE SUMMIT ACTIVITY CENTER

GRAND PRAIRIE, TX

#### CUSTOMER VISION

The architectural team of The Summit, an adult activity and fitness center in Grand Prairie, TX, needed an overall design that would reduce the solar impact from Texas' summer sun and make the building more energy efficient.

#### HOLE SOLUTION

Designers created a series of canopies made of McNICHOLS® Perforated Metal that helped reduce the effects of the summer heat and as a result, lowered utility bills. Using Aluminum Perforated Metal on such a large portion of the structure, many up to two stories tall and nearly 23 feet wide, gave it a light and airy appearance. In addition to the solar concern, the team considered the activities at the center. Open at night, the facility's McNICHOLS® Perforated Metal canopies provide a decorative backdrop for evening illumination.





Perforated Metal panels were installed in two sizes: .250" Thick Aluminum with 1/4" round holes on 1/2" staggered centers and .125" Thick Aluminum with 3/16" round holes on 5/16" staggered centers. To install the canopies, the panels were hung on pin heads welded to the steel columns, allowing the panels to be removed for cleaning and maintenance of the lighting system within the trellis. The design team was also able to achieve air circulation and light transmission by applying the panels to the face of the steel columns, which are set approximately four feet apart. In addition, the canopies were set on a curved radius and installed at a 45-degree angle, adding another dimension to the aesthetics and practical

More than 1.000 McNICHOLS®

**McNICHOLS** was honored to be selected to help the customer see their vision become a reality!

means of reinforcing the material.



In business since 1952, **McNICHOLS CO.** is the worldwide leader in supplying "Hole Products" including **McNICHOLS**® Perforated and Expanded Metals, Wire Mesh and Designer Metals, as well as a complete line of Metal and Fiberglass Grating and Flooring Products. Our Metals Service Centers are strategically located in 18 cities across the country, but are all part of one "Hole Network." Customers choose **McNICHOLS** because of our knowledgeable associates, vast product inventory, and superior customer service. Please allow us to serve you on your next project!

#### YOUR HOLE NETWORK



Inspired to Serve!

## McNICHOLS®

Industrial & Architectural Hole Product Solutions Since 1952.



866.754.5144 ■ designermetals@mcnichols.com ■ mcnichols.com

## McNICHOLS since 1952

## McNICHOLS Quality 4" Square Opening Wire Mesh 0.2500" Wire, Square Weave, Galvanized, 48.0000" x 120.0000"

Visit us online at http://www.mcnichols.com Order Now: 1-877-884-4653 or email sales@mcnichols.com



#### **Item Specifications:**

Item Number: 3294250041 Product Line: Wire Mesh Product Type: Square Opening Weight: 0.94 #/SF Class: Square Weave **McNICHOLS** Trade Name: Major Material: Galvanized Minor Material: Pre-Galvanized Construction Type: Lockcrimp Weave Opening Size1: 4.0000

Opening Size 2: 4.0000
Wire Diameter Parallel Width: 0.2500
Percent Open Area: 89

Percent Open Area: 89
Width: 48.0000
Length (Span for Grating): 120.0000
SKU Type: Sheet

Wire Diameter Parallel Length: 0.2500
HS Item Number: 3294250041



#### **Accessories:**

Angle U Edging

#### **Options:**

Angle Cutting Straight line cutting to produce an angle other than 90 degrees

Calendering A rolling operation which flattens the knuckles of Wire Cloth giving it a smoother surface.

Circle Cutting Shearing or sawing material in a circular path to a specified dimension.

Coating A material applied as a covering to another material such as vinyl coating applied to steel.

Coiling A relatively long, continuous piece of material rolled to form a coil.

Cut to Size This describes the option of cutting a standard size into pieces of specified size with typically

90 degree corners. Used to describe this process regardless of what tool or machine is used to

do the cutting.

Drawings Required Drawings required to confirm material specifications, sizes or to aid in erection of the finished

materials.

Electro-galvanizing The process of electrolytically applying a thin coating of zinc to a base material. The result is a

much thinner zinc coating than hot dip galvanizing.

4/10/2018 Item Specs: 3294250041

Forming A variety of processes that change the shape of material to a specific form through cutting,

bending, molding, stamping, etc.

Framing An option where a secondary product, usually U-edging or angle is cut and welded to form a

frame around the edge of the material.

Hot Dip Galvanizing

The process of applying a zinc rich coating to steel to prevent corrosion by submerging the

material in a tank of molten zinc for a period of time.

Painting The process of applying paint to material.

Plating The application of a thin layer of a secondary metal to a primary metal through an electrolytic

process

Polishing The process of changing the surface appearance of a material through the repeated

application of an abrasive media (brushing, grinding, sanding, etc.)

Powder Coating The process of applying powdered paint to an item then placing it in an oven where the

powder particles melt and coalesce to form a continuous coating.

Random Cutting The process of cutting when material is cut to size without regard to any finidhed pattern or

stub length.

Slitting A cutting process which is used to cut a coil into a series of strips of considerable length.

Typically these strips are recoiled during this process.

Stamping The process by which small pieces are produced by punching a specific size and shaped die

through the material.

Straight Cutting Straight line cutting at a 90 degree angle to the edge of the material.

Vibrating Screens - Wire Mesh A product made of wire mesh to which hook flanges are attached. The resulting product is

then installed into a machine designed to sort material to size.

#### **Applications:**

Architectural/Decorative Applications where the appearance of the finished item is as important as the function of the

item.

Catwalk/Walkway Material used as flooring on a raised pathway enabling movement from one area to another.

Container/Enclosure Products used as components of a container. The container may be to keep objects in or as a

secrity device to keep people or things out.

Filter/Screen Material used to reduce the flow of a liquid or gas, to limit the size of a particulate or to

reduce the amount of light allowed to pass.

Fixture/Furniture Material used as a component in a fixture or furniture.

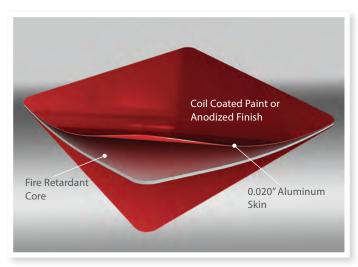
Grille/Guard Material used in some way to restrict access to an area.

Panel/Partition Material used as the means to stop the passage of something from one place to another.

Part/Equipment Products used as parts on equipment or machinery.

Platform/Deck/Mezzanine Materials used in the construction of a mezzanine or platform up above the existing level.

Railings Products used to form a physical barrier around an area or platform, typically a handrail.



#### ALUCOBOND PLUS

Alucobond® PLUS has been developed exclusively for the higher requirements of the fire regulations in architecture. Due to its fire resistant core (FR Core), Alucobond® PLUS meets the higher requirements of fire classifications while offering the proven product properties of the Alucobond® family, such as flatness, formability, resistance to wear and simple processing. The superb properties of this material boost one's inspiration and offer architecture a wide range of solutions while meeting fire performance requirements of today's building standards. Alucobond® PLUS is available in most of our current finishes and most custom colors.

#### PRODUCT DESCRIPTION

#### Material Composition

- Aluminum interior and exterior facings in 0.020" nominal thickness to ensure flatness
- > Proprietary fire-resistant core available in 4mm nominal thickness only

#### **Sheet Widths**

- > Standard coil coated widths include 50" and 62"
- > Standard anodized widths include 62"
- Custom width 40"

#### Sheet Lengths

- > Standard lengths include 146" and 196"
- Custom lengths for coil coating up to a maximum of 360"
- Custom lengths for anodized up to a maximum of 216"

#### Minimum Bending Radius

The minimum bending radius of Alucobond Plus without routing the interior skin is 15 times the thickness of the material

#### **FIRE TESTING**

#### Wall Assembly Fire Performance Tests

- > NFPA 285: Passed
- > CAN/ULC-S134: Passed

#### **TECHNICAL SUMMARY**

#### Temperature Resistance

- > Withstands environmental temperature changes from -55°F to +175°F
- Coefficient of linear expansion is governed by the aluminum sheet

#### **Technical Properties**

Nominal Thicknes	s: 4mm
Nominal Weight:	1.56 lb/ft <sup>2</sup>
Moment of Inertia	a: .000212 in <sup>4</sup> /in
Section Modulus:	.00275 in³/in
Rigidity:	2143 lb-in <sup>2</sup> /in

#### Sustainability Design

- › LEED 3
- LEED v4
  - LCA Industry Standard
  - EPD Industry Standard



#### **Accepted Code Evaluation Reports**

- 1. ICC-ES
- › 2. Florida Product Approval
- 3. City of Los Angeles
- > 4. Miami-Dade County NOA

#### MANUFACTURING

#### Manufacturing Location

Alucobond PLUS is currently manufactured in Benton, Kentucky USA

To download PDF or AutoCAD details and specifications, visit our website at www.alucobondusa.com.

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## **ALUCOBOND** PLUS THE NAME SAYS IT ALL

#### ENGINEERING PROPERTIES FOR ALUCOBOND® PLUS MATERIAL

Standard Test Method*	Description	Category	4mm
ASTM D-635	Rate of Burning	Fire Performance Properties	CLASSIFIED CC1
ASTM D-1929	ASTM D-1929 Ignition Temperature-Self Fire Performance Properties		783°F
ASTM D-1929	ASTM D-1929 Ignition Temperature-Flash Fire Performance Properties		784°F
ASTM E-84	Surface Burning Characteristics (Flame Spread Index)	Fire Performance Properties	0
ASTM E-84	Surface Burning Characteristics (Smoke Development Index)	Fire Performance Properties	0
CAN/ULC-S102	Surface Burning Characteristics (Smoke Development Index)	Fire Performance Properties	30
CAN/ULC-S102	Surface Burning Characteristics (Flame Spread Index)	Fire Performance Properties	0
ASTM C-365	Flatwise Compression Strength (Ultimate)	Mechanical Properties	9291 psi
ASTM C-393	Core Shear Properties (Perpendicular) Ultimate Facing Bending Stress	Mechanical Properties	24,720 psi
ASTM C-393	Core Shear Properties (Parallel) Ultimate Facing Bending Stress	Mechanical Properties	22,732 psi
ASTM D-790	Flexural Modulus (Perpendicular)	Mechanical Properties	1891 ksi
ASTM D-790	Ultimate Flexural (Perpendicular)	Mechanical Properties	18,573 psi
ASTM D-790	Flexural Modulus (Parallel)	Mechanical Properties	1815 ksi
ASTM D-790	Ultimate Flexural (Parallel)	Mechanical Properties	17,703 psi
ASTM D-790	Yield Flexural Stress (Perpendicular)	Mechanical Properties	6667 psi
ASTM D-790	Yield Flexural Stress (Parallel)	Mechanical Properties	6930 psi
ASTM D-638	Modulus of Elasticity (Perpendicular)	Mechanical Properties	2930 ksi
ASTM D-638	Tensile Stength (Perpendicular)	Mechanical Properties	7750 psi
ASTM D-638	Tensile Yield at .2% Offset (Perpendicular)	Mechanical Properties	6570 psi
ASTM D-638	Elongation (Perpendicular)	Mechanical Properties	14.2%
ASTM D-732	Punching Shear (Maximum Shear Load)	Mechanical Properties	2198 lbs
ASTM D-732	Punching Shear (Shear Strength)	Mechanical Properties	4615 psi
ASTM C-518	ASTM C-518 Thermal Conductivity Thermal Properties		U=6.5 Btu/hr ft <sup>2</sup> °F
ASTM C-518	Thermal Resistance	Thermal Properties	R=0.16
ASTM C-518	Thermal Conductance	Thermal Properties	6.25
ASTM D-648	Deflection Temperature - Perpendicular	Thermal Properties	185°C
ASTM D-648	Deflection Temperature - Parallel	Thermal Properties	189°C
ASTM C-273	Shear Test in Flatwise Plane (Ultimate Core Shear Strength)	Bond Integrity Properties	765 psi
ASTM C-297	Tensile Bond Strength Test in Flatwise Plane (Ultimate)	Bond Integrity Properties	1016 psi
ASTM D-1781	Bond Integrity	Bond Integrity Properties	123 N mm/mm
ASTM E-90	Sound Transmission (STC)	Acoustical Properties	30
ASTM E-90	Sound Transmission (OITC)	Acoustical Properties	24
ASTM C-272	Water Absorption	Physical Properties	0.003%
ASTM D-696	Coefficient of Linear Thermal Expansion	Physical Properties	1.11x10 <sup>-5</sup> in/in °F

<sup>\*</sup>The ASTM (American Society for Testing and Materials) Standard Test Method defines the way a test is performed and the precision of the result. The result of the test is then used to assess compliance with a Standard Specification.6





# > YOW 225 TU

Thermally Broken Operable Window for Insulating Glass

#### **Thermally Broken for Exceptional Value**

YOW 225 TU windows have been designed and engineered to provide the highest level of quality. The windows have an overall depth of 2-1/4" and are thermally broken by means of ThermaBond Plus® technology developed by YKK AP. YOW 225 TU windows may be installed as independent units or adapted to fit into most YKK AP storefront, window wall, or curtain wall systems. The vents are flush with the frame thus eliminating unsightly overlap. YOW 225 TU windows are available in a variety of configurations to accommodate project requirements.

#### **Product Benefits**

- Available configurations: Casement Outswing/Inswing, Project Out/In, & Fixed
- AAMA/WDMA/CSA/101/I.S.2/A440-11
  - AW-65 Operable
  - AW-100 Fixed
- 2-1/4" frame depth
- ThermaBond Plus® thermal break
- Accepts 1" glazing
- Factory glazing & screens
- Head/jamb receptors & stacking mullions
- Standard heavy-duty hardware





# > YOW 225 TU

## Thermally Broken Operable Window for Insulating Glass

#### **Available Hardware**



Standard Cam Handle



Pole Cam Handle



Custodial Cam Handle



Roto Operator - Casement



Roto Operator Crank Handle



**Butt Hinge** 



Roto Operator - Project

## **Specifications**



Frame Multi-Point Locking Handle

• Standard 4 or 5 Bar Hinges

Keved Limit Device

Friction Device

**Not Shown:** 

Air Infiltration: Air Infiltration: When tested in accordance with ASTM E 283 at differential static pressure of 6.24 PSF (299 Pa), completed window systems shall have maximum allowable infiltration of 0.10 CFM/FT<sup>2</sup> (1.83 m<sup>3</sup>/h·m<sup>2</sup>).

Water Infiltration: No uncontrolled water other than condensation on indoor face of any component when tested in accordance with ASTM E 331 and E547 at a minimum test pressure differential of 12 PSF (575 Pa) operable, 15 PSF (718 Pa) fixed.

**Thermal Movement**: Provide for thermal movement caused by 180 degrees F. (82.2 degrees C.) surface temperature, without causing buckling stresses on glass, joint seal failure, undue stress on structural elements, damaging loads on fasteners, reduction of performance, or detrimental effects.

Thermal Performance: Thermal Performance: When tested in accordance with AAMA 1503 and NFRC 102:

- Condensation Resistance Factor (CRFf): A minimum of 65 (Fixed), 60 (Operable).
- Thermal Transmittance U Value: 0.36 (Fixed), 0.45 (Casement & Project) BTU/HR/ FT<sup>2</sup>/°F or less.

Acoustical Performance: Acoustical Performance: When tested in accordance with ASTM E 90 and ASTM E 1332, the Sound Transmission:

Class (STC) shall not be less than 33 for operable, 31 for fixed units.

Class (STC) with double laminated glass shall not be less than 39 for operable, 39 for fixed.

Class (STC) with laminated glass shall not be less than 35 for operable, 35 for fixed.

For additional information on architectural aluminum products offered by YKK AP America Inc. visit our web site at www.ykkap.com.

## MARVIN SCENIC DOORS

WIDE-OPEN POSSIBILITIES





#### MARVIN® ULTIMATE LIFT AND SLIDE DOORS:



## IS IT INDOORS? IS IT OUTDOORS? YES AND YES.

You don't want anything to stand between you and your view. That's why Marvin designed the Ultimate Lift and Slide. Its recessed sill virtually disappears, giving you an incredibly clean and seamless transition between indoors and out. Available in stunningly large sizes, numerous panel configurations and Pocket or Stacked operation.





## STANDARD CLAD COLORS

#### **AVAILABLE WITH ALL MODELS**



Depicted clad colors are for illustration purposes only. Contact your Marvin® dealer for a sample in the finish of your choice. Want more color? Check out *MarvinWindows.com* to see our custom cladding colors.



## WOOD SPECIES / FINISH OPTIONS

#### **ULTIMATE MULTI-SLIDE AND ULTIMATE BI-FOLD DOORS**

# Dina









STAIN CHOICES AVAILABLE IN ALL MODELS



Pine

Douglas Fir\*

Leather

Espresso

White Oak

Cherry

Vertical Grain Douglas Fir

ULTIMATE LIFT AND SLIDE DOORS



Pine





Vertical Grain Douglas Fir

#### OTHER FINISH OPTIONS:

Cabernet



Clear Coat







Primed White White

Designer Black

The appearance of wood changes, often darkening, over time. Natural wood varies in color, texture and grain. Depicted wood species are for illustration purposes only. Contact your Marvin® dealer for a sample in the wood species and interior finish of your choice.

<sup>\*</sup> Available on Ultimate Multi-Slide Door only.



Discover the wide-open possibilities of Marvin® Scenic Doors at MarvinWindows.com/scenicdoors.



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## STANDING SEAM PANELS

## FABRAL 1 1/2" SSR

This classic style metal roof delivers value, beauty, and performance. Featuring 24 gauge steel, standard shadow lines and standard factory applied sealant, the 1 1/2" SSR panel is ideal for residential, commercial or re-roofing applications and designed to perform at optimum levels year after year.



This home features a standing seam roof with Chimney Pot accents and a Snow Retention System.

## PROJECT COMPONENT **CHECKLIST**

#### SYSTEM COMPONENTS

- ✓ Underlayment
- Clips
- ✓ Sealant
- ✓ Venting and Closures
- **✓** Soffits
- Snow Retention

#### **ACCESSORIES**

- Cupolas
- ✓ Door and Door Tracks
- Retrofit System
- Chimney Pots



### **PANEL SPECS**

- Minimum pitch recommended 1:12
- 16" coverage with 1 ½" seam height
- UL 790 Class A Fire Resistance Rating
- UL 2218 Class 4 Hail Impact Resistance
- UL 580 Class 90 Uplift Test Rating
- High performance Enduracote paint system features an Energy Star® approved standard color offering
- Concealed clip fastening system allows for thermal movement
- Factory applied sealant
- Shadow lines standard to enhance appearance (can be ordered without shadow lines, specify at time of order)
- Custom cut to lengths up to 40'

## **SUBSTRATES**

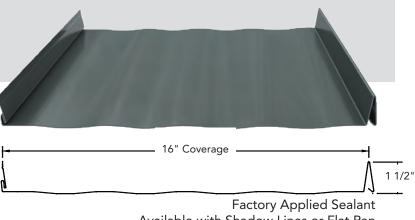
• 24 gauge high strength steel



Concealed clip fastening system allows for thermal movement.

### SYSTEM COMPONENTS

FLASHING AND TRIM	17
SOFFIT	17
UNDERLAYMENT	17
VENTING AND CLOSURES	19
SEALANT	19
FASTENERS	19
COLOR OFFERING	21
WARRANTY INFORMATION	28



Available with Shadow Lines or Flat Pan

## STANDING SEAM PANELS

#### **HORIZON S** FABRAL®

Horizon S offers a roofing choice for residential and light commercial applications. This standing seam panel with a snap-lock design features pre-punched fastener slots. Standard shadow lines enhance the appearance of this 26 gauge panel.



Horizon S in Charcoal Gray covers the roof of this home.

## PROJECT COMPONENT **CHECKLIST**

#### SYSTEM COMPONENTS

- ✓ Underlayment
- ✓ Flashing and Trim
- √ Fasteners
- ✓ Sealant
- ✓ Venting and Closures
- ✓ Soffits
- ✓ Snow Retention

#### **ACCESSORIES**

- ✓ Door and Door Tracks
- Retrofit System

Roof featuring Horizon S Antique Bronze with Snow Retention System.



## **PANEL SPECS**

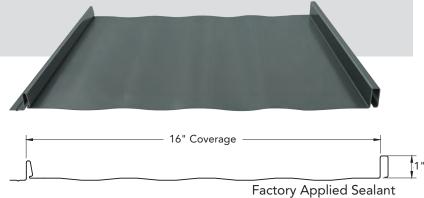
- Minimum pitch required 3:12
- 16" coverage with 1" seam height
- UL 790 Class A Fire Resistance Rating
- UL 2218 Class 4 Hail Impact Resistance
- UL 580 Class 90 Uplift Test Rating
- High performance Enduracote paint system features an Energy Star® approved standard color offering
- Factory applied sealant
- Custom cut to lengths up to 40'
- Shadow lines standard to enhance appearance
- Similar to Climaguard and Horizon 16

## SYSTEM COMPONENTS

FLASHING AND TRIM	17
SOFFIT	17
UNDERLAYMENT	17
VENTING AND CLOSURES	19
SEALANT	19
FASTENERS	19
COLOR OFFERING	21
WARRANTY INFORMATION	28

## **SUBSTRATES**

• 26 gauge high strength steel



# COLORS & FINISHES

BRITE WHITE 824 <b>IR=.67</b>
WHITE 899 <b>IR=.60</b>
IVORY 883 IR=.66
LIGHT STONE 887 IR=.58
TAN 855 <b>IR=.48</b>
COCOA BROWN 856 IR=.34
DARK BROWN 859 <b>IR=.30</b>
DARK BROWN 859 <b>IR=.30</b> ANTIQUE BRONZE 854 <b>IR=.34</b>

BRICK RED 898 <b>IR=.39</b>
BRITE RED 845 IR=.43
CLASSIC BURGUNDY 853 IR=.32
HICKORY MOSS 870 IR=.41
PATINA GREEN 893 IR=.41
EVERGREEN 875 IR=.32
LIGHT GRAY 889 IR=.36
CHARCOAL GRAY 851 IR=.34  TRUE BLACK 882 IR=.31

Availability		
Northeast / Mid-Atlantic		
Southern		
Midwest		
Western		
Color		
Brite White	824 / 724*	
White	899 / 799*	
lvory	883 / 783*	
Light Stone	887 / 787*	
Tan	855 / 755*	
Cocoa Brown	856 / 756*	
Dark Brown	859	
Antique Bronze	854 / 754	
Caribbean Blue	881	
Gallery Blue	826	
Brick Red	898 / 798*	
Brite Red	845	
Classic Burgundy	853 / 753*	
Hickory Moss	870 / 770*	
Patina Green	893	
Evergreen	875 / 775*	
Hartford Green	821	
Light Gray	889 / 789*	
Charcoal Gray	851 / 751*	
True Black	882	
Bright Copper Penny	939	
Sierra Brown	896	
Ash Gray	848	

valspar



All Fabral Enduracote (800 Series) colors are Energy Star® approved.

HARTFORD GREEN 821 IR=.30

Colors are as actual as allowed by the printing process. Actual metal samples are available; request samples prior to installation. Note: colors vary depending on position and angles.

GALLERY BLUE 826 IR=.28