

## CF ARCHITECTURAL INSULATED WALL PANEL



Metl-Span is dedicated to manufacturing and marketing the finest insulated building panel products. As a pioneer in insulated panel development for over thirty-five years, we continue to make many of the product design innovations and technology improvements that shape industry standards. We are constantly expanding our research and process capabilities in order to provide the highest quality product possible.

Metl-Span III CF, CFR, SLR and Tuff-Wall® insulated metal panels are manufactured to exacting specifications to assure uniform quality and product consistency. The panels have an advanced Blister-Free polyurethane foam core that is injected in-line between two steel face sheets. The all-in-one composite panels for wall, partition, ceiling and roof applications are economical, offer unlimited design flexibility, are durable and quick to install.

## CF ARCHITECTURAL WALL PANEL



The Metl-Span III CF Architectural wall panel is ideal for high-profile architectural applications. The panels may be installed either vertically or horizontally for maximum design impact. Attached with concealed clips and fasteners in the side joint, CF Architectural wall panels provide a beautiful flush appearance. Available features for the CF Architectural wall panel include custom widths and varying side joint reveals of 1/4", 1/2", 3/4" and up to 3" in 1/2" increments for the horizontally applied panel. Other specialty features that can be incorporated into the wall design include curved and radius panels, and integrated windows for unlimited variations and dramatic building designs.

#### **FEATURES & BENEFITS**

The leading characteristic of the CF Architectural wall panel is its unique Blister-Free polyurethane foam core. This provides an exterior face of the finished panel that is warranted against formation of thermal blisters that detract from the beauty of the wall. Metl-Span's foamed-in-place technology offers the most thermally efficient architectural panel available today.

CF Architectural wall panels have a specially formed side joint that permits hidden application of the vapor sealant within recessed grooves. This design innovation protects the sealant from the harmful effects of extreme weather, will not attract dirt and provides for an impenetrable water and vapor seal.





#### Horizontal Panel



Trimless ends complement the high profile appearance of horizontally installed panels.

The vertical joint in horizontal applications of the CF Architectural wall panel utilizes a dry gasket that helps maintain a clean weathertight seal and remains in-place even under the most severe weather conditions.

Coordinated with a variety of module widths, reveals, numerous standard colors and post fabrication choices, the CF Architectural wall panel creates virtually limitless building design options.

When applied horizontally, CF Architectural wall panels combine beautifully with the new Metl-Vision™ window system.

#### **PANEL SPECIFICATIONS:**

**MODULE WIDTH: 24", 30", 36"** 

**PANEL THICKNESS:** 2", 2 1/2", 3", 4"

LENGTHS: 8'- 0"to 32"- 0"

**EXTERIOR FACE:** Stucco embossed galvanized and/or aluminum-zinc coated steel: 22 Ga.

INTERIOR FACE: Light Mesa profile, stucco embossed galvanized and /or aluminum-zinc coated steel: 26 Ga., 24 Ga., 22 Ga. and Type 304 stainless steel in 26 Ga. unpainted

**PANEL JOINT:** Offset double tongue and groove with extended metal shelf for positive face fastening





## METL-VISION™ WINDOW SYSTEM

Metl-Vision is the first window system with a flush frame design to fully integrate with the Metl-Span III CF horizontal wall panel joint to ensure a weather-resistant installation. The finished assembly eliminates interface problems common with standard windows mated to Metl-Span III CF wall panels. Horizontal and vertical mullions can be used to create single, double and four lite strip window designs.

#### **FEATURES & BENEFITS**

The completely integrated Metl-Vision window system is thermally broken to minimize conductivity of hot and cold. Sight lines are kept to a minimum to enhance the beauty of the finished window/wall system.

Metl-Vision windows in combination with horizontally applied Metl-Span III CF wall



panels have been rigorously tested for water and air infiltration and structural integrity so they meet the criteria expected of high performance window designs.

#### **PRODUCT SPECIFICATIONS:**

Metl-Vision windows integrate with the 2" thick Metl-Span III CF wall panels only.

Sight line for the head, jamb and vertical mullion is 3". The horizontal mullion is  $3^{1}/_{4}$ " and the sight line for the sill is  $3^{11}/_{16}$ ".

The overall depth of the window frame is 4".

Reveals at the head and sill are controlled by the panel joint.

The glazing pocket is designed to receive 1" insulated glass.

Standard finishes are available that include painted and anodized.

Custom interior treatments for the head, sill and mullions can be designed to integrate with the Metl-Vision system.





#### TUFF-WALL® INSULATED WALL PANEL



Tuff-Wall® is an exceptionally attractive stucco-like insulated wall panel that exhibits the natural beauty that many designers and owners desire. The exterior surface is highlighted by the Tuff-Cote® fiber reinforced polymer coating. Unlike similar factory applied and all field applied stucco coatings that are left to air dry, the Tuff-Cote finish is heat cured under factory-controlled conditions ensuring maximum bond to the metal surface.

#### **FEATURES & BENEFITS**

Tuff-Wall provides the masonry look of stucco with the thermal efficiency of an insulated metal panel.

Tuff-Wall's durable finish is highly resistant to impact and abrasion and maintains its attractive color for many years.

Field-tested and proven Tuff-Cote finish technology comes with a ten (10) year limited finish warranty.

The panel's masonry appearance conforms to the aesthetic demands required by many communities and business developments around the country.

Tuff-Wall panels can be erected in virtually any weather condition since the Tuff-Cote finish is unaffected by damp or cold weather, unlike field-applied stucco materials.



Medium Beige



Light Stone



Light Gray



Stucco White

#### **PANEL SPECIFICATIONS:**

**MODULE WIDTH:** 36", 42"

**PANEL THICKNESS:** 2", 2 1/2", 3", 4"

**LENGTHS:** 8'-0" to 40'-0"

**EXTERIOR FACE:** Non-profiled, stucco embossed galvanized and/or aluminumzinc coated steel: 26 Ga., 24 Ga. and 22 Ga. with factory applied Tuff-Cote finish system

**EXTERIOR TEXTURE:** Tuff-Cote finish system - a hard aggregated fiber reinforced polymer coating

INTERIOR FACE: Mesa profile, stucco embossed galvanized and/or aluminumzinc coated steel: 26 Ga., 24 Ga. and 22 Ga. and Type 304 stainless steel in 26 Ga. unpainted

**PANEL JOINT:** Offset double tongue and groove with extended metal shelf for positive face fastening



### **CF PROFILED INSULATED WALL PANELS**

CF Fluted Wall Panel

#### **FEATURES & BENEFITS**

Metl-Span profiled panels have a standard FM Class I approval and offer the best insulating values available today.

The panels are lightweight and quick to install providing significantly reduced construction time.

Double tongue & groove offset side joint permits concealed fastening for an attractive architectural appearance.

Consistent insulating values are achieved across the entire area of the wall with built-in thermal breaks helping save energy.

The metal and foam composite construction creates a rigid panel far stronger than the individual parts, increasing the span capability of the panels and reducing secondary structural steel components.





#### **CF STRIATED WALL PANEL**

Metl-Span III CF Striated wall panel is an attractive and economical alternative to typical flat wall panels.

The exterior face is lightly profiled with narrow longitudinal striations to  $^{1}/_{32}$ -inch depth and exhibits a virtual flat appearance from a short distance away. The CF Striated wall panel is an exceptional value combining the aesthetics of a flat wall panel and high insulation ratings of a Blister-Free polyurethane core.

#### **PANEL SPECIFICATIONS**

**MODULE WIDTH:** 30", 36", 42"

**THICKNESS:** 2", 2 1/2", 3", 4"

**LENGTHS:** 8'-0" to 40'-0" for the 30" & 36" widths, 8'-0" to 32'-0" for the 42" wide panel

**EXTERIOR FACE:** Stucco embossed galvanized and/or aluminum-zinc coated steel: 24 Ga. and 22 Ga.

**INTERIOR FACE:** Mesa profile, stucco embossed galvanized and/or aluminumzinc coated steel: 26 Ga., 24 Ga., 22 Ga. and Type 304 stainless steel in 26 Ga. unpainted

**PANEL JOINT:** Offset double tongue and groove with extended metal shelf for positive face fastening



## CF MESA, LIGHT MESA & PARTITION WALL PANEL

The Metl-Span III CF Mesa, Light Mesa and Partition wall panels are well suited for exterior wall and interior partition wall applications.

The lightly corrugated profile on both faces of the panel ensures symmetry from outside the building to inside, and from room to room in partition applications.

#### PANEL SPECIFICATIONS

**MODULE WIDTH:** For the CF Mesa and Light Mesa wall panel: 30'', 36'', 42''; For the CF Partition wall panel:  $44^{1}/_{2}''$ 

**PANEL THICKNESS:** CF Mesa profile, 2", 2 1/2", 3", 4", 5", 6" CF Light Mesa profile, 2", 2 1/2", 3", 4"

**LENGTHS:** 8' - 0" to 53' - 0"

**EXTERIOR FACE:** Stucco embossed galvanized and/or aluminum-zinc coated steel: 26 Ga., 24 Ga. and 22 Ga. Mesa profile is 1/8" deep, Light Mesa profile is 1/16" deep

**INTERIOR FACE:** Mesa profile, stucco embossed galvanized and/or aluminum-zinc coated steel: 26 Ga., 24 Ga., 22 Ga. and Type 304 stainless steel in 26 Ga. unpainted

**PANEL JOINT:** Offset double tongue and groove with extended metal shelf for positive face fastening



#### **CF FLUTED WALL PANEL**

The ribbed profile of the Metl-Span III CF Fluted wall panel provides bold vertical lines complementary to almost any commercial or industrial building.

Like the other Metl-Span III CF panels, the fluted design is erected with concealed clips and fasteners in the side joint.

#### PANEL SPECIFICATIONS

**MODULE WIDTH:** 42"

**PANEL THICKNESS:** 2", 2 1/2", 3", 4", 5", 6"

**LENGTHS:** 8'- 0" to 53'- 0"

**EXTERIOR FACE:** Stucco embossed galvanized and/or aluminum-zinc coated steel: 26 Ga., 24 Ga., 22 Ga.

**INTERIOR FACE:** Mesa profile, stucco embossed galvanized and/or aluminumzinc coated steel: 26 Ga. 24 Ga. and Type 304 stainless steel in 26 Ga. unpainted

**PANEL JOINT:** Offset double tongue and groove with extended metal shelf for positive face fastening

#### **USES & APPLICATIONS**

In new and retro-fit construction, Metl-Span III panels function as walls, ceilings and roofing for all types of architectural, commercial and industrial applications.

They are ideally suited for:

#### **ARCHITECTURAL**

- Low and Mid-Rise Offices
- Mid-Rise Office Spandrel Panels
- Convention Centers
- Performing Arts Centers
- Arenas
- Airport Terminal Buildings
- · Schools & Universities
- Religious Facilities
- Hospitals

#### **COMMERCIAL & INDUSTRIAL**

- Retail Buildings
- Aircraft Hangers
- Prison Facilities
- Equipment Maintenance Buildings
- · Manufacturing Facilities
- Warehouses
- Distribution Centers
- Self-Storage Complexes
- Utility Buildings
- Controlled environment buildings where temperature control and insulation values are critical.

All Metl-Span panels can be easily adapted to pre-engineered metal building designs for almost any end-use as walls and roofing, saving material, time and labor costs.

| F  | Panel Thickness<br>IN. CM. |       | Operating<br>Temperature          | Thermal Conductivity  K - Factor |       | Heat Transfer<br>Coefficient<br>U - Value $\frac{W}{(m^2k)}$ |      | Thermal<br>Resistance<br>R - Value k.m<br>W |      |
|--|----------------------------|-------|-----------------------------------|----------------------------------|-------|--|------|---|------|
|  | 2                          | 5.08  | Ambient                           | .127                             | .0183 | .063   | .361 | 16  | 2.77 |
|  | 2.5                        | 6.35  | To +40°F/<br>+4°C                 | .127                             | .0183 | .051   | .288 | 20  | 3.47 |
|  | 3                          | 7.62  | To +30°F/<br>-1°C                 | .127                             | .0183 | .042   | .240 | 24  | 4.16 |
|  | 4                          | 10.16 | +30°F to -20°F/<br>-1°C to -28°C  | .127                             | .0183 | .031   | .180 | 32  | 5.55 |
| A STATE OF THE STA | 5                          | 12.7  | -20°F to -50°F/<br>-28°C to -46°C | .127                             | .0183 | .025   | .142 | 40  | 7.04 |
|  | 6                          | 15.24 | -50°F to -70°F/<br>-46°C to -58°C | .127                             | .0183 | .021   | .119 | 48  | 8.38 |

Note: Thermal values are based on testing at 75° F mean temperature.





# THERMALSAFE® FIRE RESISTIVE INSULATED PANEL

#### PRODUCT PRESENTATION

Metl-Span's new ThermalSafe® product is a fire resistive insulated panel consisting of metal facings bonded to a structural mineral wool core. ThermalSafe combines the latest technology in panel design with Metl-Span's advanced manufacturing expertise to create a composite panel that achieves one, two and three hour fire resistive ratings for non-load bearing walls and a ninety (90) minute fire resistive rating for a non-load bearing ceiling.

ThermalSafe panels with the exclusive LockGuard® side joint have one, two and three hour fire resistive ratings without installation of field-applied silicate splines in the panel joint. This unique design speeds the installation process and enhances the fire resistive characteristics of the panel.

#### **ENVIRONMENTALLY FRIENDLY**

ThermalSafe panels are made from recyclable raw materials. The mineral wool core is a natural product that contains no VOCs and CFCs that affect the ozone layer or add to global warming potential. No poisonous gases are released during a fire.

#### **FEATURES & BENEFITS**

ThermalSafe's structural mineral wool core resists high temperatures and will not burn, thus providing excellent fire resistive qualities.

Fire resistive exterior and interior walls can be installed in one step with ThermalSafe mineral wool panels. You eliminate multiple steps associated with the installation of concrete block or numerous layers of gypsum wallboard. They provide good thermal performance and protection from the elements in addition to their fire resistive



characteristics. Additional steps to insulate the wall are eliminated.

ThermalSafe panels may be installed without sealant in the side joint for partition wall applications when a vapor seal is not required, greatly enhancing installation speed.

ThermalSafe fire resistive insulated panels can be combined with Metl-Span III foam insulated panels for an aesthetically consistent profile facing, texture and color.

For interior applications, partitions can be disassembled, moved and reinstalled rather than having to be demolished, the waste materials disposed of and the partition walls completely rebuilt.

Mineral wool panels have good sound transmission acoustical properties compared to foam insulated metal panels.

The ThermalSafe core is dimensionally stable, water repellent and will not expand. Mineral wool, however, is a fibrous material with a high perm rating, so the ThermalSafe panel edges must be protected from moisture.

#### **USES & APPLICATIONS**

ThermalSafe fire resistive insulated panels are ideal for industrial buildings like manufacturing plants, auxiliary buildings at refineries and other at risk for fire building installations.



ThermalSafe® Panel

ThermalSafe® Side Joint Connection

Warehouses of all types are excellent structures for mineral wool panels, where they can be installed as exterior fire resistive separation walls or as fire partitions and barriers inside tilt-up buildings that contain multiple tenant leased space. High occupancy structures like sports arenas and gymnasiums, cold storage warehouses, bakeries and other food processing facilities are well suited for ThermalSafe panels.

#### PANEL SPECIFICATIONS

**FACE PROFILE:** Light Mesa pattern nominal  $^{1}/_{32}$ " depth

**MODULE WIDTH:** 42"

**PANEL THICKNESS:** Nominal 4", 5", 6", 7", 8"

**LENGTHS:** Minimum is 8'-0". Maximum available length is variable by thickness, weight, end use and orientation. Contact Metl-Span for custom length availability

**EXTERIOR FACE:** Stucco embossed galvanized and/or aluminum-zinc coated steel: 26 Ga. and 24 Ga.

**INTERIOR FACE:** Stucco embossed galvanized and/or aluminum-zinc coated steel: 26 Ga. and 24 Ga.

**CORE:** Non-combustible structural mineral wool

**PANEL JOINT:** Exclusive LockGuard® side joint has a flush, double tongue

and groove connection of the metal faces with an advanced integral spline to join the mineral wool core

**R-VALUE:** The core insulating value is 3.61 "R" per inch

#### FIRE RESISTIVE DATA:

- The finished panel in 4" thickness for one hour, 7" thickness for two hour, and 8" thickness for three hour fire resistance ratings for nonbearing wall in accordance with UL 263 Fire Endurance tests and ASTM E119 tests.
- For more complete fire resistive rating data, including new fire resistive ratings for pipe penetrations both metallic and non-metallic, ducts, and fire door assembly design installed in a fire resistive ThermalSafe wall, go to WWW.METLSPAN.COM and follow links to fire resistance approvals data.
- Wall framing support members and adjacent construction may require fire protection as specified by applicable building code. The customer is responsible for specifying the appropriate fire protection in these areas.



#### **HANDLING**

Because of ThermalSafe's heavy weight to strength ratio, use of specialized vacuum actuated lifting equipment is suggested to ensure safe and controlled handling of the panels.

Traditional end-lifting methods may be used subject to proper handling of the panels. Refer to the ThermalSafe Installation Guide for complete handling suggestions.





## CFR & SLR INSULATED ROOF PANEL

#### METL-SPAN III CFR ROOF PANEL

Metl-Span III CFR is an insulated metal standing seam roof panel and is the foremost innovation in all-in-one composite panel design, combining durable interior and exterior faces with Metl-Span's unmatched Blister-Free polyurethane core. The CFR insulated metal standing seam roof panel is a truly unique answer to many deficiencies common with metal standing seam panels of the past.



The CFR roof panels have wide coverage areas between side joint connections and a mechanically closed standing seam that is 2" high. Profiling between the seams is a Mesa pattern with stucco embossing for added strength and superior appearance. Panels are attached to the structure with clips and fasteners concealed in the side joint to ensure maximum watertightness.

The CFR roof panel's diaphragm strength can be integrated into many steel-framed building bracing designs by attaching panels with Metl-Span's exclusive Clinch Clip®. Adjacent roof panels are interlocked without fastener penetrations that compromise weather tightness or costly below-roof installation. Diaphragm strength and shear stiffness data are available in the CFR roof panel diaphragm strength technical bulletin, which is accessible on the Metl-Span web site in the document section.



## UNIQUE FEATURES & BENEFITS

The CFR roof panel provides exceptional benefits including a standing seam exterior face for unsurpassed weathertight performance. The expansive panel width options contribute to installation savings because there are fewer side joints to seal. CFR roof panels are installed completely from the top side with concealed clips and fasteners placed in the side joint. Factory cut panel ends, factory notching and factory swaged ends eliminate critical and extensive field reworking and reduce erection costs. Factory installed backer plates at the endlaps also eliminate pre-drilling for special fasteners and fastener tools.

Careful design parameters have enabled Metl-Span to create an incomparable roof system that is easily and quickly installed without dependence on highly skilled labor.

#### **PANEL SPECIFICATIONS**

**MODULE WIDTH:** 30", 36", 42"

**EXTERIOR PROFILE:** 2" high standing seam with a Mesa pattern between the seams

**INTERIOR PROFILE:** Mesa pattern, 1/8" deep

**PANEL THICKNESS:** 2", 2 1/2", 3", 4", 5", 6"

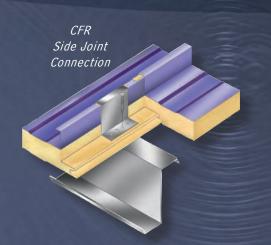
**INSULATING VALUES:** R - 16 to R - 48

**PANEL LENGTHS:** Standard 8'-0'' to 50'-0'' Contact Metl-Span for custom length availability

**EXTERIOR FACE:** Stucco embossed G–90 galvanized and/or aluminum-zinc coated steel: 24 Ga. and 22 Ga.

**INTERIOR FACE:** Stucco embossed G—90 galvanized and/or aluminum-zinc coated steel: 26 Ga., 24 Ga. and 22 Ga.





**PANEL JOINT:** Mechanically closed single lock standing seam at the exterior side joint. The interior side joint is a single tongue and groove interlock

**UPLIFT PERFORMANCE:** UL 90 rated, Factory Mutual 4471, FM 1-90 windstorm and Florida Building Code approved. Dade County NOA No. 05-0830.04

#### METL-SPAN III SLR ROOF PANEL



Metl-Span III SLR insulated roof panel is a premium roof that offers long life, low



maintenance and exceptional performance. The panel features a standing lap seam  $1^{1}/4^{\prime\prime}$  high and a tongue and groove interlock at the interior side joint of the panel.

#### PANEL SPECIFICATIONS

**EXTERIOR PROFILE:** Overlapping rib 1<sup>1</sup>/<sub>4</sub>" high at panel joint with Mesa pattern between the ribs

**INTERIOR PROFILE:** Mesa pattern, 1/8" deep

**MODULE WIDTH:** 44 1/2"

**PANEL THICKNESS:** 2", 2 1/2", 3", 4", 5", 6"

**INSULATING VALUES:** R-16 to R-48

**PANEL LENGTHS:** Standard 8'-0'' to 47'-0''

**EXTERIOR FACE:** Stucco embossed G—90 galvanized and/or aluminum-zinc coated steel: 26 Ga. and 24 Ga.

**INTERIOR FACE:** Stucco embossed G-90 galvanized and/or aluminum-zinc coated steel: 26 Ga. and 24 Ga.

**PANEL JOINT:** Overlapping rib at the exterior side joint and a single tongue and groove at the interior side joint. A saddle clip and snap-on batten complete the installation

**UPLIFT PERFORMANCE:** Factory Mutual 4471 approved and FM 1–90 windstorm resistance



#### **COATINGS & SURFACINGS**

To ensure a lasting quality appearance, the exterior face sheet of Metl-Span III CF, CFR, SLR and ThermalSafe® is treated with a base primer, followed by a premium coating of full-strength 70 PVF<sup>2</sup> fluoropolymer finish. A siliconized polyester finish is available in a reduced palette of standard colors for projects where economy is the primary consideration. All twenty-one colors shown are available in full-strength 70 PVF<sup>2</sup> fluoropolymer finish. The standard siliconized polyester colors in 26 Ga., G-90 galvanized and/or aluminumzinc coated steel are Polar White, Sandstone and Regal Gray.

#### **AVAILABILITY & COST**

Metl-Span panels are manufactured in Lewisville, Texas, Prince George, Virginia, and North Las Vegas, Nevada. They are available through a network of independent representatives, independent contractors and design-build companies. Since cost is



a factor that depends on each installation based on panel profile, insulation thickness, coatings and quantity, contact Metl-Span for the name of the nearest representative for pricing. For more complete information on panel specifications, technical data, a detail library and the location of the nearest sales representative, please visit the Metl-Span Web site at WWW.METLSPAN.COM

#### WARRANTY

Metl-Span III CF, CFR, SLR and ThermalSafe panels are warranted to be free from defects in material and workmanship for a period of two (2) years from the date of shipment, and to be free from gas blister formation of the foam core to the exterior panel facing for a period of five (5) years from the date of shipment. Ensuring watertightness and/or vaportightness is a function of the installer and is not covered by the warranty from Metl-Span. Complete standard limited warranty information is available upon request.

Metl-Span is not responsible for selection and application of colors, coatings and products, and reserves the right to substitute, delete and change gauges, widths, thicknesses, finishes and colors on its products and profiles at its discretion, at any time and without notice.



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#### METL-SPAN WALL & ROOF PANELS EXTERIOR COLORS AND COATINGS.

#### Available Standard Exterior Colors

Full Strength 70% PVDF Fluoropolymer Regal Gray Cool Sculptured Bronze Premium I Exterior Colors

Full Strength 70% PVDF Fluoropolymer Cool Forest Green Cool Marine Green Aegean Blue Brick Red Cool Zinc Grav Cool Bright Red Cool Parchment Tahoe Blue Terra-Cotta Regal Blue Hemlock Green Jade Green

#### Premium II Metallic Exterior Colors

Full Strength 70% PVDF Fluoropolymer



- \* Desert Beige and Cool Sculpture Bronze are available standard colors in 26 Ga. and 24 Ga. steel only. These colors are available in 22 Ga. steel as Premium I colors only.
- \*\* Metallic paint finishes will exhibit color shift, shade variances, striations and longitudinal patterning that are inherent characteristics and are not a product defect or cause for rejection.

Prices may vary by color, gauge and quantity of metal. Please contact your Metl-Span representative for complete information.

All colors shown above approximate actual finish colors as accurately as possible.