

TECHNICAL DATA

POLYMER COMPOSITE - SCULPTED PANELS AND ARCHITECTURAL GRILLES

Product Name

Architectural Ornaments from Mineral-Metal Polymer Composite:
POLYMER COMPOSITE

Manufacturer

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Product Description

Use:

Product is intended for interior or exterior nonstructural ornamentation on masonry, metal or frame construction for architectural aesthetics.

- Walls of new construction, exterior or interior
- Remodeling and redecorating of existing walls, exterior or interior

Limitations:

Should not be assumed to add strength to load-bearing capacity of wall.

Composition and Finish:

Engineered metal and mineral aggregates are bonded with acrylic polymer and inert fiber reinforcement in combination with proprietary ingredients and admixtures to form a matrix capable of accurately replicating the desired architectural element form while exhibiting increased compression and flexural and durability properties.

Polymer Composite is available in Chromacast® Metalized Paint Finishes and Chromacast® Paint Finishes.

- Black Iron
- Bright Aluminum
- Brite Copper
- Cool Nickel
- Dark Bronze
- Iron Rust
- Patina Bronze
- Platinum
- Warm Nickel

and the following eight Chromacast® Paint Finishes:

- Baked Earth
- Cayenne Red
- Chalk
- Ebony
- Nut Brown
- Putty
- Statue Green
- Wine

Polymer Composite is also available in prime only condition for final painting and finishing on the job site by others. Purchaser may elect to paint over, or otherwise change the finish of Polymer Composite which has already received a Chromacast® factory coating.

Organization of Design Elements:

Designs are available in Medallions with solid backgrounds as well as Architectural Grille forms with open backgrounds. Designs are also available in Friezes with a variety of frame combinations for horizontal and vertical banding applications. Multiple elements can be combined to reinforce any architectural theme. All standard Architectural Grille designs are also available as standard Medallion designs. Not all standard Medallion designs are available as standard Architectural Grilles.

Polymer Composite is also available in various custom configurations for bas-relief sculpture, word panels, signage, informational and commemorative panels, and other decorative architectural elements.

These original designs are protected by U.S. Copyright. Unlawful duplication is prohibited.

Shapes and Sizes:

Polymer Composite Medallions are available in multiple sized square, circular (round), half-round, keystone and frieze shapes in a variety of sizes. Custom Medallions are available in any shape or size required.

Polymer Composite Architectural Grilles are available in square shapes up to 72" x 72" and rectangle shapes up to 72" x 120". Custom Architectural Grilles are available in any shape or size required. Larger sizes can be achieved by combining Architectural Grille sections.

Note: All items have an approximate thickness of 1" overall.

Product Line Breadth:

Medallions: Over 100 original designs in multiple sizes and shapes.

Friezes: Over 100 original designs in 8" or 16" heights. The length of each Frieze is determined by the addition of border frame(s) to each end of Frieze panel.

Architectural Grilles: 60 original square designs in multiple sizes.

Architectural Grilles and Medallions and other architectural ornamental elements are typically shipped with stainless steel mounting hardware. Architectural Grilles are also shipped with matching plugs which are provided as decorative covers over stainless steel mounting anchor screws.

TECH DATA

Technical data furnished herein has been determined by independent testing laboratories and is believed to be reliable by manufacturer. This document supersedes all previous similar documents.

Technical Data

Shear Strength:

1 1/4" embedment in 3000 psi concrete for each anchor average 1622 lbs.

Pullout Strength:

1 1/4" embedment in 3000 psi concrete for each anchor average 1616 lbs.

Compressive Strength:

ASTM D695 average of 19000 psi.

Tensile Strength:

ASTM D3039 average of 29800 psi.

Flexural Strength:

ASTM D790 average of 7700 psi.

Weight:

Polymer Composite: Dry weight approximately 6 lbs., per surface square foot.

Water Absorption:

Water absorption is usually less than .001%.

Fire Hazard:

Flame spread rate ASTM E162.

Weatherability:

ASTM G154 0% degradation after 1000 Hrs.

Other Characteristics:

Polymer Composite is lightweight, extremely durable, resistant to frost damage and UV degradation.

Installation

Detailed installation procedures are contained in Tables 1 and 2 and Figures 1-10.

Product can be typically affixed with stainless steel anchor screws to a prepared interior or exterior surface. In adverse site conditions or where there is a potential for application failure, alternate installation methods may be required.

Qualified carpentry contractor, qualified tile setter or qualified fixture installer is usual installer.

Composition and physical characteristics may change due to market and technological conditions without notice.

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Availability and Cost

Availability:

Available from manufacturer at:
(800) 771-4595.

Cost:

Product is priced according to shape, size and finish. Product is shipped F.O.B. factory; job site cost of product is therefore affected by distance from manufacturing plant.

Application cost may be affected by the condition of the surface to receive the product and any preparation required prior to installation.

Warranty

Pineapple Grove Designs warrants that all Polymer Composite products are of merchantable quality and will be replaced if defective and manufacturer is notified of defect by purchaser within ten days of receipt of material. No other warranties, implied or expressed, are applicable.

The warranty covers only manufacturing defects in Polymer Composite architectural ornaments. It does not cover cost of labor, other materials, damage to other materials, or incidental damages which may result from manufacturer's defect. Product must be inspected by purchaser prior to installation. See Terms & Conditions for complete warranty.

Maintenance

Most applications of Polymer Composite require no maintenance. Regular cleaning will help maintain the factory finish of the item.

Polymer Composite may be cleaned with a pH balanced mild detergent cleaner. Follow cleaner manufacturer's instructions.

Technical Support

Technical personnel are available for consultation with architects, engineers, applicators and owners to discuss type selection, costs, installation procedures, etc.

TABLE 1 - SUBSTRATE PREPARATION

SUBSTRATE	CONDITION	PREPARATION
Concrete, Masonry, Stucco on Block, Stucco on Lathe	Clean, Untreated	No preparation required.
	Dirty, Form Oil Residue	Clean surface with detergent & water then rinse thoroughly and/or scour with a wire brush.
	Painted, Sealed	Thoroughly wash away dirty, dust, and chalking paint.
Polystyrene Board	Smooth Surface (Tilt-up, FRC Board)	No preparation required.
		Apply glass fiber cloth & waterproof coat of polymer stucco according to manufacturer instructions before applying medallion.
Interior Gypsum Board, Two Coat Plaster	New Unpainted	No preparation required.
	Painted, Dirty	Remove loose or flaking paint. Clean as per adhesive manufacturer's specifications.

TABLE 2 - INSTALLATION PROCEDURES

SUBSTRATE	PREPARATION
Exterior Concrete, Masonry Stucco on Block, Stucco on Lathe	Prepare surface as indicated in Table 1. Apply offset blocks, if required to Architectural Grille forms, before proceeding with installation. Install Polymer Composite solid back cast ornaments and Architectural Grilles using 1/4" diameter 410 stainless steel TAPCON® screws supplied with Polymer Composite item. Drill receiving holes in substrate according to fastener manufacturer's instructions. Fasteners shall pass through the pre drilled holes in the Polymer Composite item and be sufficiently tightened to securely fasten the item to the substrate. Care shall be taken to not excessively tighten the fastener which may result in pull through or breaking to the substrate. When required, adhesive shall be affixed following adhesive manufacturer's instructions. Allow 1/4" minimum joint between adjacent pieces for caulk. Caulk perimeter and any joints with caulk containing premium elastomeric ingredients.
Polymeric Stucco over Polystyrene Board	Stainless steel anchor screws must penetrate through polystyrene panel to structural substrate base. Use approved waterproof caulk adhesive at point of penetration to prevent water from entering screw hole.
Interior Gypsum Board, Two-Coat Plaster	Prepare surface as indicated in Table 1. Pre drilled pieces may be fastened with screws and back plates or toggle bolts to wall.

Note: Tables 1 and 2 assume wall is structurally sound, stable, and weather tight.

Note: Ultimate connection design is the responsibility of Building Design Engineer, Architect or otherwise responsible person charged with the connection design.

Warning! Failure to follow these instructions or to install product in an insecure or unsafe manner can result in property damage, serious injury or death. All ornaments and Grilles are nonstructural and are not intended to be used as a lifesaving barrier.

Personal safety equipment required for installation. See Polymer Composite Installation Specs 3.2 A