

TECHNICAL DATA

ENGINEERED CAST STONE - MEDALLIONS, FRIEZES AND SCULPTED PANELS

Product Name

Architectural ornamental elements from Manufactured Stone:

ENGINEERED CAST STONE

Manufacturer

Pineapple Grove Designs
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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 Cast Stone has a stone appearance and consists of a cementitious (cement/aggregate/coloring) mix composed of low CO₂ cements, natural silicates and ±20% post-consumer glass and/or other aggregates. Engineered Cast Stone product is available in the following twelve colors:

- Alluvial Sand
- Brick Red
- Coastal Ivory
- Coral Sand
- Patina Green
- Terra Clay
- Beach Stone
- Brown Stone
- Concrete Grey
- Glacier Grey
- Pure Pearl
- Terrain Taupe

Manufacturer also provides custom color matching. Purchaser may elect to paint, seal or otherwise finish Engineered Cast Stone similar to any other cement based product.

Engineered Cast Stone is available in the following nine Chromacast® Metalized paint finishes:

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

and the following eight Chromacast® paint finishes:

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

Engineered Cast Stone items may be ordered 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 the Engineered Cast Stone which has already received a Chromacast® factory coating.

Organization of Design Elements:

Each design is available in multiple sizes of square, circle and half-round medallions as well as keystone shapes. 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.

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Shapes and Sizes:

The following shapes and sizes are available in Engineered Cast Stone: Custom designs are available.

MEDALLIONS

Shape	Size	Weight
Square	7 5/8" x 7 5/8"	4 Lbs
Square	8" x 8"	4 Lbs
Square	12" x 12"	10 Lbs
Square	16" x 16"	14 Lbs
Square	24" x 24"	32 Lbs
Square	36" x 36"	74 Lbs
Circle	12" Diameter	9 Lbs
Circle	16" Diameter	12 Lbs
Circle	24" Diameter	28 Lbs
Circle	36" Diameter	58 Lbs
Half Round	30" Diameter	20 Lbs
Half Round	48" Diameter	57 Lbs
Keystone	12" Tall	6 Lbs
Keystone	24" Tall	22 Lbs
Keystone	36" Tall	49 Lbs

FRIEZES

Framing	Size	Weight
Inside-2 open ends	8" x 24"	10 Lbs
Single End-closed	8" x 25"	11 Lbs
Double End-closed	8" x 26"	12 Lbs
Inside-2 open ends	16" x 29 1/2"	27 Lbs
Single End-closed	16" x 30 3/4"	29 Lbs
Double End-closed	16" x 32"	31 Lbs

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

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:

Product was applied to a concrete block wall with a 3/8" thick bed of Portland cement based mortar. Shear strength exceeded 250 psi.

Compressive Strength:

Average of 4000 psi.

Weight:

Engineered Cast Stone: Dry weight approximately 8 lbs., per surface square foot.

Water Absorption:

Waterproofing admixtures in Engineered Cast Stone result in low permeability of finished product. Water absorption is usually less than 4%.

Fire Hazard:

Flame Spread Rate 0
 Smoke Development Rate 0

Other Characteristics:

Engineered Cast Stone contains purified hydrocarbon admixtures resulting in 3-6% air entrainment. It is extremely durable and resistant to frost damage.

Added protection may be achieved by ordering Engineered Cast Stone with a factory applied moisture repelling sealer.

Installation

Detailed installation procedures are contained in Tables 1 and 2 and Figures 1-9.

Product can typically affixed with blind pins and a Portland cement based thinset to a prepared exterior surface. In adverse site conditions or where there is a potential for application failure, alternate installation methods may be required.

Interior applications can be achieved with blind pins and an appropriate adhesive. Qualified masonry contractor or qualified tile setter is usual installer.

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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 Engineered Cast Stone 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 Engineered Cast Stone 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 Engineered Cast Stone require no maintenance. Applications subject to extreme freeze-thaw conditions should be protected with a silane (non-film forming) masonry sealer.

Engineered Cast Stone may be cleaned with a pH balanced concrete 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 etch surface with muriatic acid & rinse thoroughly and/or scour with a wire brush.
	Painted, Sealed	Sandblast clean or scarify with a masonry grinder. Wash away sandblasting dust thoroughly. If sandblasting/scarifying is not possible, then apply galvanized metal lathe with concrete nails.
	Smooth Surface (Tilt-up, FRC Board)	Insure proper bond with a bondcoat of thinset. Prepare with bonding agent on clean surface.
Polystyrene Board		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 bonding agent to wall if necessary. Wet Engineered Cast Stone piece thoroughly. A mortar mix of three parts masonry sand, one part portland masonry cement, clean mixing water and bonding agent admixture is spread on the wall or back of the Engineered Cast Stone piece or both to achieve 100% coverage. Piece is then pressed into mortar bed and joints are tooled and finished as mortar begins to stiffen. Face of piece is then cleaned of any splashed mortar or mortar smears. If colored grout is to be used, joints should be raked to base of piece and around perimeter. After mortar is cured, joints should be dampened and colored pointing mortar or prepared grout may be applied. Allow 1/4" joint between adjacent pieces for grout. Grout perimeter and any joints with grout containing elastomeric additive (Laticrete or equivalent).
Polymeric Stucco over Polystyrene Board	Use stucco manuf. adhesive to apply medallion to waterproof substrate. Stainless steel pins must penetrate through polystyrene panel to structural base. Anchor tabs may be used for screw-on applications.
Interior Gypsum Board, Two-Coat Plaster	Prepare surface as indicated in Table 1. Apply construction adhesive to piece and press into place as per adhesive manufacturer's instructions. Predrilled pieces may be fastened with screws and anchors or toggle bolts to wall.

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

Note: Hold piece in place during initial set of mortar or adhesive by securing a horizontal ledger strip to wall and a diagonal brace to the face of each panel.

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

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.

Personal safety equipment required for installation. See Engineered Cast Stone Installation Specs 3.2 A