FDC™ STONEKOTE SPECIFICATION

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Manufacturer:

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SECTION I – GENERAL

1.0 SUMMARY

This section specifies prefabricated cementitious compound coated on preformed EPS foam aesthetic substrate for decorative applications under the trade name of FDC™ StoneKote.

1.1 DESCRIPTION

Using a state-of-the-art CNC machine, an EPS foam core is precisely cut into decorative preformed shape, then coated with a proprietary, patent-pending high strength cementitious coating compound with a fiberglass mesh embedded within. The final product has a semi smooth finish that looks and feels like pre-cast or cut stone and is ready for installation. It can be painted or stained if desired, with no need for a stucco finish.

All standard prefabricated architectural trim pieces are indicated

1.2 DEFINTIONS

Adhesive: A material applied to the back of a molding, to attach it to a suitable substrate.
EPS: Expanded polystyrene precisely cut and used as the core for the FDC™ StoneKote trim
Expansion Joint: This is a joint through the entire building wall, designed to control
building movement.
Mechanical Fasteners: An approved device, used as prescribed, to mechanically attach FDC™ StoneKote large-format trim to an approved substrate.
strengths of the final product.

Substrate: An approved wall surface where FDC™ StoneKote trim can be installed with acceptable adhesion procedures.

1.3 DESIGN REQUIREMENTS

The substrate wall systems shall be flat within a ¼" in (6.4mm) in a 4' (1.2m) radius, and shall have a maximum allowable wall system deflection under full flexural design loads which does not exceed 1/240 times of span.

FDC™ StoneKote may be applied to the following recommended substrates and wall
surfaces:

- EIFS System: manufacturer and applicator approved and accepted by Foam Design Center
- Stucco and Moldings
- Properly finished and cleaned cement board
- Concrete tilt up building
- Glass board
- Poured concrete, well cleaned and free from any contaminants
- Unit masonry or veneer to be approved by Foam Design Center

1.4 QUALITY ASSURANCE

Foam Design Center shall manufacture, or have manufactured under license, all FDC™ StoneKote moldings provided.

Foam Design Center has performed extensive testing to ensure the cementitious coating compound will yield typical physical properties upon proper mixing and usage procedures. The manufacture cannot control variances encountered in the field, by different users, and therefore cannot warrant specific performance or color. Foam Design Center recommends that each user determine the suitability of the cementitious coating compound to their application.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

FDC™ StoneKote is to be picked up at the manufacturer's factory or at an authorized distributor center, or delivered to the project site in its original unopened package with labels intact.

FDC™ StoneKote products supplied by the manufacturer should be stored in a cool, dry place and protected from direct sunlight, weather and damaging elements.

All FDC™ StoneKote products should be stored in a temperature of not less than 40°F (4°C).

FDC™ StoneKote is designed to be more durable than other decorative trim products, however, undue flexing, impact and static loading should be avoided.

1.6 PROJECT CONDITIONS

Environmental and Weather Conditions: Wall surface and ambient air temperature shall be at least 40°F (4°C) during the installation of FDC™ StoneKote products. Wall surface and ambient temperatures must remain above 40°F (4°C) for at least 24 hours or longer after installation if necessary, for the bonding materials to sufficiently dry.

SECTION II -- MATERIALS

FDC™ StoneKote:

1. Decorative Trim Product

a. Shall be coated with polymer-modified cementitious, acrylic based primer, or gypsum based coatings depending on application.

b. Foam shapes shall be produced by Foam Design Center or an authorized licensee.

c. Shall meet current dimensional specifications of molded expanded polystyrene shapes

d. Minimum nominal density shall be available in 1#, 2# and 3# density (see Appendix A).

2. Reinforcing Mesh Netting

a. Shall be produced by Foam Design Center or a manufacturer approved by Foam Design Center.

b. Shall be treated, open weave or glass fiber type.

c. Available in 10 x 10 fine and 6 x 6 regular net.

3. Base Coat and/or Adhesive

a. Based on application, cementitious or gypsum base coat and/or adhesive, or acrylic primer to approved substrate.

Mechanical Fasteners:

To be used if required and specified to affix FDC™ StoneKote trim to substrate surface. The fasteners shall include a corrosion resistant screw, which will be suitable for penetration and attachment to substrate.

SECTION III -- INSTALLATION

3.1 General

Surface Preparation

- The surface of the substrate and the surface of the moldings shall be clean, dry, and free of grease, paint, oil or any foreign material.

- The surface of the substrate shall be level, plane and true, being 1/8 (3mm) within 4ft (1.2m).

- The surface of the substrate shall be examined for soundness, such as tightness of connections, crumbling or looseness of surface, voids and projections.

- Work shall not proceed until unsatisfactory conditions are corrected.

3.2. Standard Procedure for Molding Installation

This procedure is recommended for the following systems:

- EIFS
- Extruded Insulation
- Wire Mesh
- Mineral Wool
- Cement Board

1. Dry fit and/or cut on site the molding as per the architectural drawings and existing structure.
2. Apply adhesive of system manufacturer to the back of the molding in a vertical pattern, using 3/8" notched trowel. In the alternative, use a premium adhering materials applied in a ¼" continuous zigzag bead of adhesive within 2" of each other. If skinning occurs on the adhesive, scrape off and replace it with fresh adhesive before installing the molding.
3. Press the molding into place using temporary mechanical fasteners as per selected manufacturers system to secure molding while the adhesive cures.
4. Remove excess adhesive (if any) along the molding before curing.
5. Refer to system details, exhibits and follow the step by step installation procedure.
6. Apply grout at the joint between the molding and the substrate.
7. Allow the material to cure.
8. When joining two pieces, at the junction, leave a gap of not exceeding 3/8". Cover all joints with grout does through a grout bag.
8. Clean the installed trim pieces with clean water using a sponge.

3.3 Finishing coat for Base-Coated FDC™ StoneKote products

1. Exterior Paint Finish
   a. Per paint manufacturer's specifications
   b. Conventional water-based paint may be applied after 48 hours of curing.
2. Exterior Stucco Finish
   a. After curing for at least 48 hours, stucco finish may be applied directly over the coated EPS shape. Just before applying color coat, add four (4) ounces of bonder to each 50 lb. bag of stucco when mixing or brush bonder directly on foam shape.
   b. For other exterior finishes (EIFS) – please contact Foam Design Center

3. Acrylic Finish
   a. Per acrylic manufacturer's specification
   b. Minimum 48 hours – surface must be completely dry

Appendix A.

Property (ASTM C 578-92 (all))	Values		
	(1LB)	(2LB)	(3LB)
Density (Lbs./Cubic Ft.)	1.02	2	3
Compressive 10% Deformation (PSI)	12	29	46
Flexural (PSI)	27	63	99
Tensile (PSI)	18	26	34
Shear (PSI)	20	36	52
Shear Modulus (PSI)	300	620	940
Modulus of Elasticity (PSI)	200	480	760
WVT (perm. in)	3.5	1.3	0.7
Absorption (%) vol. Max.	4	2	1
Capillarity	NONE	NONE	NONE
Coefficient of Thermal Expansion in./(in.)(F)	4E-05	0	4E-05
Maximum Service Temperature (°F) Long-term / Short-term	167 / 180	167 / 180	167 / 180
Oxygen Index (%)	24	24	24

Appendix B.

ASTM Standards:
- Surface burning characteristics of building materials, test method ASTM-E84ULC 102.
- Smoke development characteristics of building materials, Test method ASTME84ULC 102.
- Vapor permeability characteristics of building materials, Test method ASTME96.
- Standard test method for freeze-throw resistance of Exterior Insulation and Finish Systems (EIFS) class P modified ASTM-C67.
- Mandrel Flexibility characteristics of building materials, Test method ASTMC203 (Elasticity).
- ASTM C578 specification for performed polystyrene thermal insulation.

EIMA Standards:
- EIMA 105.01 standard test for Alkali resistance of Fiberglass Reinforcing Mesh
for use in Exterior Insulation and Finish Systems (EIFS).
- EIMA 101.86 standard test method for impact resistance Exterior Insulation and Finish Systems (EIFS).
- EIMA 101.83 standard test method for bond strength of adhesive base coats in Exterior Insulation and Finish Systems (EIFS).

FDC™ Foam Design Center is a blender of processed material in the State of California, and is required by Proposition 65 to warn that one or more of the components contained in this product could contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California (Proposition 65) requires this warning in the absence of definitive testing to prove that the defined risks do not exist. We believe this product complies with all other applicable state and federal laws and regulations governing manufacture, distribution and intended use.

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