

Diamond Wall Three Coat

Premium three coat stucco system

PRODUCTS INTERNATIONAL

Diamond Wall Three Coat is an excellent choice for scratch and brown coat in three-coat stucco applications. Three-coat stucco is recognized in the IBC/IRC building codes and remains one of the most popular exterior cladding choices for both residential, multi-family, and commercial projects. Diamond Wall Three Coat offers a single source, durable, fire-resistant cladding with industry leading technical support and system warranties.

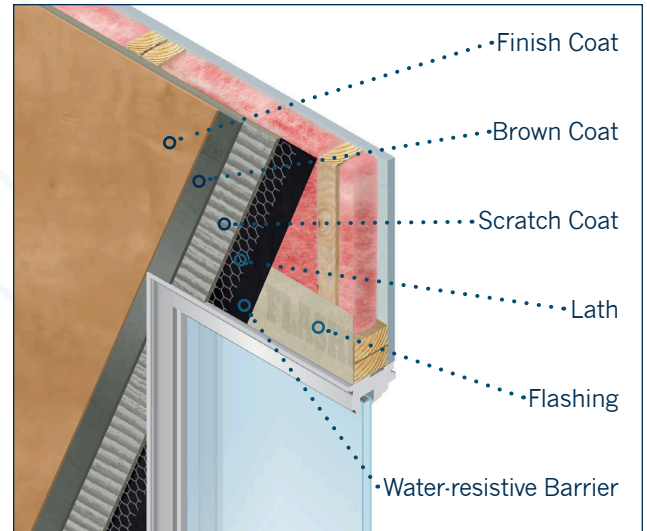
System Description

Three coat stucco is applied in three layers: ~ 3/8-inch thick scratch coat, ~ 3/8-inch brown coat, and ~ 1/8-inch finish coat. The approximately 7/8-inch system is applied by hand or machine over an approved water-resistive barrier and metal lath.

Diamond Wall Three Coat is a factory prepared blend of Type I-II portland cement complying with ASTM C150, chopped fibers, and proprietary ingredients. Diamond Wall Three Coat is a superb alternative to plastic cement and meets or exceeds job site requirements for portland cement plaster with lime. Diamond Wall produces a superior wall that can have a finish coat applied in as little as 24-hours after the brown coat.

Design Considerations

- May be applied over steel or wood framed construction over one of the following:
 - ASTM C1082, C933, C847 lath over open framing
 - ASTM C1396 water-resistant gypsum sheathing
 - ASTM C1177 glassmat faced gypsum sheathing
 - ASTM C1325 cement boards
 - ASTM C1278 gypsum fiber panels
 - Exterior grade or exposure 1 plywood
 - Exposure 1 OSB
 - Poured concrete or masonry
- Available in one-hour fire-resistive-rated assemblies
- Available in non-combustible assemblies
- Refer to the local code or ASTM C926 for three coat stucco design and application requirements, except for plaster proportions and mixing. Materials and mixing shall conform to the instructions found in the Diamond Wall Concentrate data sheet.



Uses

Diamond Wall Three Coat is an excellent exterior wall cladding for new or retrofit residential, multi-family, commercial, or institutional projects.

DIAMOND WALL THREE COAT ADVANTAGES

FEATURES	BENEFITS
<i>Economical</i>	Low installation and life-cycle costs with a system that will last decades with little maintenance
<i>Durable and impact resistant</i>	Can withstand years of weather and physical abuse
<i>Cement-based</i>	Fungus, rot, and insect resistant
<i>Fire-resistant</i>	Non-combustible and available in 1-hour fire-resistant-rated assemblies
<i>Acceptable base coat for a variety of finishes</i>	Stucco, acrylic, paint, and stone are all finish options
<i>Some finish coats able to be applied within 24-hours</i>	Reduced labor and scaffolding costs; schedule savings
<i>System Warranty</i>	Up to 15-ys when used in combination with other Omega products

Approved by: _____ Date: _____

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System Components

The following products are components in the Diamond Wall Three Coat system. Please see the product's data sheet for additional information.

Water-resistive Barrier¹

- Minimum No. 15 asphalt nonperforated felt complying with ASTM D 226 for Type I (IBC or IRC) or asphalt-saturated rag felt complying with UL Standard 55A (UBC)
- Minimum Grade D kraft building paper complying with UBC Standard 14-1 or ICC-ES Acceptance Criteria for water-resistive Barriers (AC38)
- Material recognized in a current evaluation report as complying with the ICC-ES Acceptance Criteria for water-resistive Barriers (AC38)

Lath¹

See ASTM C1063 for additional lath requirements.

- Woven Wire (17-gage):** Nominal No. 17 gage [0.058 inch], 1½-inch opening, galvanized steel complying with ASTM C1032.
- Welded Wire:** Nominal No. 16 gage [0.065 inch], 2-inch-by-2-inch opening, galvanized steel complying with ASTM C933.
- Metal Lath:** Complying with ASTM C847 (IBC or IRC) or with Table 25-B of the UBC as applicable

Base Coat

Diamond Wall Three Coat is a factory prepared blend of portland cement complying with ASTM C150, chopped fibers, and proprietary ingredients.

Sand¹

Sand shall be clean and free from deleterious amounts of loam, clay, silt, soluble salts, or organic matter and shall be graded in accordance with ASTM C144, C897, or the sand must have a demonstrated performance record in similar construction and climate conditions.

Finishes

A variety of finish options are available:

- OmegaFlex Finishes:** 100% acrylic-based finishes
- AkroFlex Finishes:** 100% acrylic-based finishes
- AkroSil Finishes:** Silicon enhanced acrylic-based finishes
- Akrolastic Finishes:** Elastomeric acrylic-based finishes
- ColorTek Stucco:** Portland cement-based stucco finishes²
- AkroCoat:** 100% acrylic paint
- Elastomer 44:** Elastomeric acrylic-based coating
- Valentino Finishes:** Approved Valentino finishes
- Travertino:** Portland cement-based limestone finish²

System Upgrades

The following products are optional upgrades to the Diamond Wall Three Coat System. The use of these products will increase the system's warranty.

Admixture²

An optional Omega admixture may be added to Diamond Wall Three Coat for increased tensile, bond, and flexural strength.

- AkroLoc:** A 100% acrylic polymer bond or admixture
- PolyLoc:** Poly-vinyl acetate (PVA) bond and admixture
- Admix 500:** A 100% acrylic polymer admixture
- OmegaCure:** A non-corrosive liquid admixture for accelerating the hydration of cement plaster

Primer

- OmegaFlex or AkroFlex Primer is recommended when using acrylic-based finishes.

Installation & Design Requirements

- Do not add additional plasticizers to Diamond Wall Three Coat mix.
- Substrates must be structurally sound, clean, and dry without planar irregularities greater than ¼-inches in 10-feet.
- Maximum allowable deflection of structural wall components is 1/360 of the span.
- Expansion joints should be installed as detailed in ASTM C1063. Final expansion and control joint design and location are the responsibility of the design professional.
- Store and apply all component products per the product's data sheet.
- Do not use below grade. Terminate a minimum of 4-inches above grade, 2-inches above finished grade, or as specified by local code.
- All openings shall be properly flashed and designed to allow water to escape to the outside of the wall.
- All penetrations shall be properly flashed and/or sealed using approved methods.
- Walls should be designed to prevent bulk water from getting behind the stucco or running down the face of the stucco. The bottom of wall should have weep screed or another effective means to drain any water that may get behind the stucco.
- To reduce the likelihood of the stucco cracking, it is recommended the building carry a minimum of 90 percent of the dead building load and the interior gypsum be installed prior to installation of the stucco.
- Wood-based sheathing should be gapped 1/8-inch to allow for expansion and be attached per code requirements using corrosion resistant fasteners.
- Moist curing must be provided for a minimum 24 hours after coating applications. The length of time and most effective procedure for moist curing will depend on climatic and job conditions.
- Do not apply Diamond Wall Three Coat when the ambient and surface temperature is below 40°F (4°C). The use of OmegaCure will improve the hydration of Diamond Wall Three Coat at low temperatures.
- Plaster coats shall be protected from freezing for a period of not less than 24-hours after set has occurred.
- Protect applied product from inclement weather until set.
- Over masonry or cementitious substrates Diamond Wall Three Coat may be directly applied a maximum of ½-inch thick or as local code permits. Surfaces must be free from oil or other elements that could interfere with bonding. To improve the bond to the masonry or cement substrate, Omega Products recommends the use of Bondcrete. Applications over ½-inch require the use of lath.
- Sufficient slope on faces of plastered surfaces shall be provided to prevent water, snow, or ice from accumulating or standing.
- Optional EPS foam plant-ons may be used to add architectural detailing.
- Brown coat may be applied once the scratch coat has sufficient strength to hold the brown coat or as local codes permit. The time between coats will depend on climatic and job conditions.
- Some cement-based finishes, such as Omega ColorTek or Travertino, may be applied after a minimum cure time of 24-hours. Some acrylic-based finishes, such as Omega AkroFlex and OmegaFlex Finishes, may be applied after a minimum cure time of 48-hours. Refer to finish product data sheet for additional application information.

Crack Isolation System

- To help reduce the likelihood of cracking, an optional layer of fiber-glass mesh may be embedded into the Diamond Wall Three Coat brown coat or a skim coat with mesh may be applied over the Diamond Wall Three Coat base coat. See Omega's Crack Isolation System Data Sheet for more information.

¹ Manufactured by others

² When optional an acrylic admix is used, ColorTek Stucco or other cementitious finishes require the use of a bonding agent or an acrylic admixture.

Disclaimer

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ucts are beyond the control of Manufacturer; therefore, no warranty is made, expressed or implied, as to the results obtained from the use of the product or against any claims for infringement of patents resulting from use of the product. Under no circumstance shall Manufacturer be liable for incidental or consequential damages arising out of the use or the improper application of the product. Before applying the product, the user shall determine the suitability of the product for his/her independent use, assuming all risks and liability whatsoever in connection therewith. This writing constitutes a complete and exclusive statement of the understanding between Manufacturer and Buyer.

Claims

Any Claimant shall notify Manufacturer immediately in writing of any alleged defect in the material. Claimant will provide Manufacturer with a reasonable and exclusive opportunity to investigate and test for the alleged defect. For any claim that is not valid Claimant agrees to pay Omega's reasonable charges, including travel and labor associated with investigation of such claim.

Technical Assistance

Technical assistance and information is available by calling Omega Products International, Inc. at (800) 600-6634 or FAX (951) 520-2594 or by e-mail at info@omega-products.com.

Warranty

The following is made in lieu of all expressed and implied rights, warranties and conditions, statutory or otherwise. The manufacturer's only obligation shall be to replace such quantity of products proven to be defective within one year following the date of manufacture, provided that the alleged defective product is returned prepaid to the manufacturer's plant and is accompanied with proof of purchase and batch number.

