

SPECIFICATIONS FOR H-COAT PRODUCTS

H-COAT HIGH-TECH STUCCO COATING SYSTEM FOR ICFs

Spec. Sheet for General H-Coat Systems

H-Form's High-Tech Coating for H-Forms ICFs, EPS ICFs & the Foam Building Industry

APPLICATIONS: The **H-Coat STUCCO SYSTEM** is designed and formulated as a coating and protection for structures & landscaping walls built with any ICF or EPS substrate for the following applications

- 1. SINGLE & MULTI-FAMILY RESIDENTIAL & LOW-RISE COMMERCIAL BUILDINGS**
- 2. PRIVACY WALLS, SOUND WALLS, AND FENCES**
- 3. RETAINING WALLS & FOUNDATIONS**
- 4. SWIMMING POOLS**

GENERAL DESCRIPTION:

H-BASE was specifically developed by H-Forms, Inc. for use on its foam block/form/ICF system and can also be used as a coating for other types of foam construction. It is formulated to be mixed with water for application by hand or with a plasterer's sprayer. Color coats and waterproofing require a specified amount of **H-Acryl**, **H-Forms'** liquid acrylic additive. In combination with **H-MESH** reinforcing fabric, it provides a hard, durable and dense finish coating and protection that is an integral part of the **H-Forms** "Building System". **H-BASE** provides the advantages of cost-effectiveness, ease and speed of application and its proven compatibility as a foam product coating. Foam Substrate should be a minimum of 1 lb./cu.ft. to 2 lb./cu.ft. density EPS or other recommended foam.

DELIVERY, STORAGE & HANDLING:

All product must be protected from moisture and freezing during shipping. Product should be shipped on pallets and wrapped for protection. All materials should be stored in a cool, dry place. Job-site storage should be minimized and may require an opaque cover such as a tarp or plastic sheeting to protect from wind, moisture, temperature swings and sunlight. Avoid storing under transparent shrink-wrap or similar material. All palletized material should be protected with a wind-tight, water-tight cover. At no point should material be stored less than 3 inches from the ground. **Damaged sacks should be inspected for contamination and, if product is shown to contain lumps, hardness, or otherwise non free-flowing powder, should be discarded. Damaged sacks that contain only sound, uncontaminated product should be used first, only after thorough inspection. H-Forms will not replace or in any other way, compensate purchaser for product damaged under such circumstances and is not responsible for coverings to protect product after leaving factory.**

USES:

The **H-Coat STUCCO SYSTEM** is designed for use on all ICF EPS products. The system has a unique warranty when combined with **H-Form** ICFs only. It may also be used on other EPS and XPS products as well as **H-Forms** approved foamed-plastic substrates.

QUALITY ASSURANCE:

H-Forms' commitment to quality products is unique.

Samples of finished product should be requested by party responsible for product selection and submitted for approval, clearly showing each layer of material and the finish texture and color. Installer must warrantee that product will be installed as per approved sample. Drawings of flashings, windows, joints and other pertinent details should be submitted to the architect, manufacturer, general contractor, owner or building official, as appropriate, for approval.

MATERIALS:

The **H-Forms Stucco System** consists of the following materials:

- 1. H-BASE**, applied with embedded **H-MESH-4** to create a solid base-coat for painting or receiving **H-TOPCOAT** color coatings.
- 2. H-MESH-4**, a 4.2 oz. per square yard non-adhesive reinforcing glass fiber fabric by H-FORMS, must be used with all **H-FORMS STUCCO SYSTEM** applications. High impact areas may call for a double application of the mesh embedded in the base coat or between basecoat and color coat. Admixtures, modifiers and other additives are not to be used unless recommended by H-FORMS for particular conditions. Other mesh weights/thicknesses may be requested by purchaser for heavier trafficked areas, potentially subject to abuse.
- 3. H-MESH-15**, a heavier version of H-MESH-4 specifically for potentially high and frequent above normal impact to wall, and in particular, for swimming pool coating and pool plaster finish.

COVERAGE:

- 1. H-BASE** must be built up to a minimum of 1/4" thickness, in two 1/8" layers with **H-MESH** embedded between. This represents two pounds per square foot of wall area. A 50lb. sack of **H-BASE** should cover 25 square feet. However, this factor may be influenced by increased thickness, amount of waste, degree of difficulty, finish texture and mix consistency, or other special situations.
- 2. H-MESH-4** is available in 150 foot by 38 -inch rolls with a net coverage of 450 square feet, assuming a minimum of a 2" overlap in all situations.
- 3. H-MESH-15** is available in 75 foot by 38-inch rolls yielding approximately 225 sq.ft. per roll, with the same overlap as **H-MESH-4**.
- 4. H-TOPCOAT** comes in 90 Lb sacks and will cover 90 square feet at a 1/8" thickness. It requires 1 quart of **H-ACRYL** per bag to be mixed in with water to the applicators preferred consistency.
- 5. H-PROOF** comes in 50 Lb. sacks and is applied in the same fashion as **H-BASE** but with the additional admixture of 1 pint of **H-ACRYL** per bag.
- 6.** See "CURING", below, for painted surfaces.

CONDITIONS:

H-FORM STUCCO products should only be applied when ambient air temperature is at least 40°F (4°C) and will remain so for a minimum of 24 hours after application or until materials are dry. For unavoidable installation in temperatures less than 40°F, supplemental heat with appropriate ventilation should be used, providing it does not overly accelerate the drying process. Product must not be applied to frozen surfaces. Adequate protection should be provided to prevent weather conditions from having adverse affects on the curing time of **H-COAT** products. Wind, precipitation, temperature, humidity, direct sun impact and angle of exposure may have considerable influence. Under no circumstances should **H-COAT** applied products be exposed to freezing temperatures for at least 48 hours after application.

If any **H-COAT** products are applied in hot conditions, including direct exposure to the sun, fog the surface lightly prior to, and (continuously, depending on amount of exposure) after application, to minimize hair-line cracking.

SUBSTRATE PREPARATION:

The surface to which **H-BASE** is applied must be either **H-Forms** EPS blocks and forms, or other acceptable types of foam and substrate. Do not apply traditional building paper or other moisture barrier to substrate, as **H-BASE** must adhere (bond) directly to EPS surface to be coated. A continuous, smooth substrate is required, free of marks, indentations and cracks. Fill all holes, cracks and indentations greater than 1/16" with H-Forms **EnerFoam** injection foam. Rasp any protrusions greater than 1/16" or slice off wall surface with flexible hand-saw pressed against surface. All foreign material such as oils, dust, dirt, excessive moisture, laitance, form-release, efflorescence, grease, curing compounds and paint, or other, should be completely removed before applying **H-BASE**. Particular care must be taken to brush off and wash down EPS walls that may have oxidized (yellowed) due to excessive exposure to ultra-violet rays (sunlight).

MIXING:

The installer should mix product by either: *mechanical mixing* (using a paddle-type plaster machine, approved paddle drill mixer (1/2 h.p. min., 500 r.p.m. max.)) or by *hand mixing*. All mechanical mixers should have a clutch to disengage paddles. All techniques must be capable of thoroughly blending material within 3 minutes. Total mixing time must not exceed 5 minutes. Do not over-mix product. Over-mixing can create serious air entrainment thereby weakening the finished coating. Clean working conditions are critical. Clean, potable water to 90% of the required amount should be added first. When mixture is smooth and homogeneous the remaining 10% should be added. Allow the mix to take an initial set ("slake" or "fatten") for 5 to 30 minutes, depending on temperature of mix and volume of water. Then add water to temper mix to desired consistency. If mix has begun to hydrate before being applied to substrate it must be discarded. If mix becomes over-watered, additional dry mix may be added to bring to proper consistency, but not after mix has slaked. Persons mixing and around **H-FORMS** wet cementitious materials **MUST** wear suitable eye protection.

APPLICATION:

1). Hand Application:

All tools required for hand application are standard to the plaster industry and include steel trowels, hawks, darbies or slickers, "go devils", plastic pails and sponge floats. During use, all tools should be cleaned frequently with clean water and **LIQUID HAMMER**, by H-Forms. Final applied product should reach a minimum thickness of 1/4" and may be applied as follows with **H-MESH** being smoothed and pressed into the initial 1/8" application with concrete trowel or other appropriate tool. Do not apply more **H-BASE** to ICF than can be covered with **H-MESH** and second 1/8" **H-BASE** coat immediately. Apply a fog-coat with spray rig or hopper gun to any mesh that does not receive a full body coat of **H-BASE** the same day. Always ensure application of both **H-BASE** coats as soon as possible after embedding **H-MESH**.

a) **H-BASE COAT APPLICATION:** Trowel first 1/8" coat on substrate, and embed mesh. Then double-back immediately to achieve final and minimum 1/4' thickness of **H-BASE**. Light sand-float is recommended to slightly roughen surface to better receive H-TOPCOAT.

b) **H-TOPCOAT APPLICATION:** Mix **H-TOPCOAT** with recommended proportion of H-ACRYL and add water to required and preferred workable viscosity. Do not overmix, as per **H-BASE** instructions, above. Lightly fog applied H-BASE before applying H-TOPCOAT, ensuring minimum passes of troweling to achieve desired thickness and texture. This should prevent differential consolidation of color dye. Should that occur, apply additional thin-coat of same H-TOPCOAT over the surface.

2). Spray Application:

In all cases firm troweling of the first pass of **H-MESH** into **H-BASE** is required for best adhesion to wall. Mixing for spraying requires that slightly more water be added to ensure workability throughout spray application process. Do not apply a coat in excess of 1/16" at any one time. Allow each application to become tacky before the next pass. Use each pass to prevent the previous coat from drying entirely. In excessive heat conditions or direct sunlight fogging with water may be required after top coat has set up. Do not apply excessive fog coat to **H-TOPCOAT**, as color die may run, requiring finish coat to be repeated or painted.

CURING:

FOR PAINT FINISH: Although we highly recommend the use of **H-TOPCOAT** as a color finish, contractor may choose to paint finish. In that event, we recommend two 3/16" coats of **H-BASE** with **H-MESH** embedded, as described above. Allow **H-BASE** to set for at least 72 hours before sealing/priming or painting. Painted walls should be sealed to inhibit bleeding and discoloring of painted surface. Always ensure that H-BASE is dry and moisture-free before applying primer. Apply as many coats of primer as necessary to seal surface to receive paint and as many applications of paint as to achieve desired final appearance.

FOR H-TOPCOAT COLOR STUCCO FINISH: **H-TOPCOAT** comes in 90Lb Sacks and covers 90 square feet at 1/8" minimum thickness. More may be needed for different textures. It may be applied to **H-BASE** within twenty-four hours but after **H-BASE** has set up to ensure no intermingling of both products.

CLEAN-UP:

Care should be taken to protect all nearby areas and objects from over-spray or spillage. Protection of surrounding areas and objects is highly recommended, especially when spraying. **H-COAT** products may permanently damage sensitive materials if allowed to dry. Any misdirected material should be washed off immediately with clean water. All tools and machinery should be kept clean during use and thoroughly cleaned immediately after use. **Never wash excess coating material into open drains. Always dispose of excess material in a responsible fashion.**

Use "Liquid Hammer" by H-Forms, Inc. to clean concrete and cementitious products from all your application tools.

INSPECTION:

Substrate preparation in accordance with the contract documents and these specifications is vital to successful application of **H-COAT PRODUCTS**. Site conditions and weather information should be recorded. Any questions regarding the use of this product should be directed to your **H-FORM** distributor or **H-FORMS** technical staff.

WARNING:

H-FORM COATINGS contain some chemicals and materials that may be harmful to humans if ingested or coming into contact with eyes or skin. Applicators should always wear adequate protection recommended by OSHA, such as gloves and safety glasses, when working with **H-COAT PRODUCTS**. In the case of accidental ingestion of the product, vomiting must be induced and a physician consulted immediately. If product comes in contact with eyes, immediately wash with clear potable water and consult eye doctor. Product coming in contact with the skin should be washed off immediately and it is recommended that a skin moisturizer be applied to the area to prevent dryness.

OTHER BUILDING SYSTEM PRODUCTS:

Consult your local H-Forms Building Systems distributor for information on ICF and form products, waterproofing and other ancillary products which make up this specialized system.

H-BASE is a quality basecoat for medium impact areas for landscape features, retaining walls, sound walls, foundations, water features and buildings built with H-FORMS and other ICFs, especially BuildBlock.

H-BASE may be used as a quality adhesive generally used for attaching foam profiles and shapes to foam blocks, forms and panels.

H-MESH-

4 & H-MESH-12: Fiberglass fabric reinforcing mesh for all **H-Forms** stucco and waterproofing cementitious products.

YOUR LOCAL H-FORMS BUILDING SYSTEMS DISTRIBUTOR IS:

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