Textured 100% Acrylic Finishes (TAFS)
For Use Over Insulating Concrete Forms (ICF)

DS194

Textured Acrylic Finishes (TAFS) Over ICFs Specifications

MANUFACTURER'S SPECIFICATION
CSI MASTERFORMAT SECTION 09 96 00
TEXTURED ACRYLIC FINISHES (TAFS)
OVER ICFS

PART I – GENERAL

1.01 SUMMARY

A. This document contains all the Manufacturer's requirements for the proper design, use, and installation of the Dryvit Textured Acrylic Finishes (TAFS) over Insulating Concrete Forms (ICF) with or without an additional layer of EPS foam insulation board. Refer to DS193 ICF Finish System Installation Details for additional information.
B. SECTION INCLUDES
   1. Textured Acrylic Finishes
C. RELATED SECTIONS
   1. Insulating Concrete Forms – Section 03 11 19

1.02 REFERENCES

A. ASTM B117 (Federal Test Standard 141A Method 6061) Test Method of Salt Spray (Fog) Testing.
B. ASTM C150 Specification for Portland Cement.
C. ASTM C297 Test Method for Tensile Strength of Flat Sandwich Constructions in Flatwise Plane.
D. ASTM D968 (Federal Test Standard 141A Method 6191) Test Method for Abrasion Resistance of Organic Coatings by Falling Abrasive.
E. ASTM D3273 Test Method for Resistance to Growth of Mold on Surfaces.
F. ASTM E84 Test Method for Surface Burning Characteristics of Building Materials.
G. ASTM E96 Test Method for Water Vapor Transmission of Materials.
H. ASTM G155 (ASTM G23 or G26) Recommended Practice for Operating Exposure Apparatus (Carbon-Arc Type) With and Without Water, for Exposure of Nonmetallic Materials.

1.03 DEFINITIONS

A. Contractor: The contractor that applies materials to the substrate.
B. Dryvit: Dryvit Systems, Inc., the manufacturer of the TAFS materials.
C. Lamina: The layer consisting of the reinforced base coat and finish materials.
D. Finish: An acrylic based coating, available in a variety of textures and colors, which is applied to the prepared wall surface.
E. Reinforced Base Coat: The layer consisting of fiberglass reinforcing mesh fully embedded in the base coat material applied to the outside surface of the substrate.
F. Reinforcing Mesh: Glass fiber mesh used to reinforce the base coat.
G. Substrate: The ICF or additional layer of EPS to which the Dryvit base coat is applied. Shall be supplied by Nudura® or approved equal.

1.04 DESCRIPTION

A. General: Dryvit TAFS consists of base coat, reinforcing mesh and finish.
B. Design Requirements:
   1. Acceptable surfaces for the Dryvit TAFS shall consist of ICF molded EPS manufactured with buried webs and ICF with exposed webs when additional EPS is applied to the ICF surface. Contact Dryvit Systems, Inc. for recommendations regarding other products.
   2. Vapor Retarders: Use, type and location of vapor retarders, within a wall assembly, is the responsibility of the project designer and shall be noted on the project drawings and specifications.
   3. Projecting surfaces shall have a minimum slope of 6:12 and maximum length of 12 in (305 mm).
   4. The substrate shall be flat and smooth.
   5. The specified ICF shall comply with all applicable code requirements for the construction type (combustible or non-combustible). Details shall conform with proper termination requirements for combustible or non-combustible construction (refer to published details).
   6. Site Coated EPS Shapes and Starter Boards: Shall be coated on site utilizing the same materials (EPS, base material mixture, reinforcing mesh, and finish) as specified for the project.
   7. Machine-Coated EPS Shapes and Starter Boards: Shall be supplied by a manufacturer that subscribes to the Dryvit third party certification and quality assurance program.

C. Performance Requirements: As a minimum, the Dryvit materials shall be tested as follows:
   1. Mildew/Fungus Resistance: ASTM D3273; Passed
   2. Accelerated Weathering: ASTM G155 - 5000 hrs.; Passed
   3. Salt Spray Resistance: ASTM B117 – 300 hrs.; Passed
   4. Abrasion Resistance: ASTM D968; Passed
   5. Absorption, Freeze/Thaw: ASTM C67 – 60 Cycles; Passed
   6. Water Penetration: ASTM E331; Passed
   7. Flame Spread: ASTM E84 – Flame Spread Index less than 25, Smoke Developed less than 450.

8. Impact Resistance: In accordance with ASTM E 2486 (formerly EIMA Standard 101.86

Reinforcing Mesh[1]/Weight oz/yd² (g/m²)	Minimum Tensile Strengths	EIMA Impact Classification	EIMA Impact Range		Impact Test Results	
			in-lbs	(Joules)	in-lbs	(Joules)
Standard - 4.3 (146)	150 lbs/in (27 g/cm)	Standard	25-49	(3-6)	36	(4)
Standard Plus - 6 (203)	200 lbs/in (36 g/cm)	Medium	50-89	(6-10)	56	(6)
Intermediate™ - 12 (407)	300 lbs/in (54 g/cm)	High	90-150	(10-17)	108	(12)
Panzer® 15[2] - 15 (509)	400 lbs/in (71 g/cm)	Ultra High	>150	(>17)	162	(18)
Panzer 20[2] - 20.5 (695)	550 lbs/in (98 g/cm)	Ultra High	>150	(>17)	352	(40)
Detail Mesh® Short Rolls - 4.3 (146)	150 lbs/in (27 g/cm)	n/a	n/a	n/a	n/a	n/a
Corner Mesh™ - 7.2 (244)	274 lbs/in (49 g/cm)	n/a	n/a	n/a	n/a	n/a

1. It shall be colored blue and bear the Dryvit logo for product identification
2. Shall be used in conjunction with Standard Mesh (recommended for areas exposed to high traffic)

9. Water Vapor Transmission: ASTM E96 – Vapor Permeable

1.05 SUBMITTALS

A. Product Data – The Contractor shall submit to the owner/architect manufacturer's product data sheets describing products, which will be used on this project.

B. Samples – The Contractor shall submit to the owner/architect two samples of each finish, texture, and color to be used on the project. The same tools and techniques proposed for the actual installation shall be used to prepare the samples. Samples shall be of sufficient size to accurately represent each color and texture to be utilized on the project.

1.06 QUALITY ASSURANCE

A. Qualifications

1. Manufacturer: Shall be Dryvit Systems, Inc. All materials shall be manufactured or sold by Dryvit and shall be purchased from Dryvit or its authorized distributor.
   a. Materials shall be manufactured at a facility covered by a current ISO 9001:2015 and ISO 14001:2015 certification. Certification of the facility shall be done by a registrar accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB).
2. Contractor: Shall be knowledgeable in the installation of the Dryvit materials and shall be experienced and competent in the application of TAFS.
3. Machine-Coated EPS Shapes and Starter Boards: Shall be supplied by a manufacturer that subscribes to the Dryvit third party certification and quality assurance program.

1.07 DELIVERY, STORAGE, AND HANDLING

A. All Dryvit materials shall be delivered to the job site in the original, unopened packages with labels intact.

B. Upon arrival, materials shall be inspected for physical damage, freezing or overheating. Questionable materials shall not be used.

1. Materials shall be stored at the job site, and at all times, in a cool, dry location, out of direct sunlight, protected from weather and other sources of damage. Minimum storage temperature shall be as follows:
   a. DPR, PMR™, HDP™, Weatherlastic® and E™ Finishes, Color Prime™, Primus®, Genesis® and NCB™, 40 °F (4 °C).
   b. For other products, refer to specific product data sheets.
2. Maximum storage temperature shall not exceed 100 °F (38 °C). **NOTE: Minimize exposure of materials to temperatures over 90 °F (32 °C). Finishes exposed to temperatures over 110 °F (43 °C) for even short periods may exhibit skinning, increased viscosity and should be inspected prior to use.**

C. Protect all products from inclement weather and direct sunlight.

1.08 PROJECT CONDITIONS

A. Environmental Requirements

1. Application of wet materials shall not take place during inclement weather unless appropriate protection is provided. Protect materials from inclement weather until they are completely dry.
2. At the time of Dryvit product application, the air and wall surface temperatures shall be from 40 °F (4 °C) minimum to 100 °F (38 °C) maximum for the following products:
   a. DPR, PMR, HDP, Weatherlastic and E Finishes, Color Prime, Primus, Genesis and NCB.
   b. For other products, refer to specific product data sheets.
3. These temperatures shall be maintained with adequate air ventilation and circulation for a minimum of 24 hours (48 hours for Weatherlastic Finishes, Ameristone, TerraNeo and Lymestone) thereafter, or until the products are completely dry. Refer to published product data sheets for more specific information.

B. Existing Conditions – The Contractor shall have access to electric power, clean water, and a clean work area at the location where the Dryvit materials are to be applied.

1.09 SEQUENCING AND SCHEDULING

A. Installation of the Dryvit TAFS shall be coordinated with other construction trades.

B. Sufficient manpower and equipment shall be employed to ensure a continuous operation, free of cold joints, scaffold lines, texture variations, etc.

1.10 LIMITED MATERIALS WARRANTY

A. Dryvit Systems, Inc. shall provide a written limited materials warranty against defective material upon written request. Dryvit shall make no other warranties, expressed or implied. Dryvit does not warrant workmanship. Full details are available from Dryvit Systems, Inc.

B. The applicator shall warrant workmanship separately. Dryvit shall not be responsible for workmanship associated with installation of the Dryvit TAFS.

1.11 DESIGN RESPONSIBILITY

A. It is the responsibility of both the specifier and the purchaser to determine if a product is suitable for their intended use. The designer selected by the purchaser shall be responsible for all decisions pertaining to design, detail, structural capability, attachment details, shop drawings, and the like. Dryvit has prepared guidelines in the form of specifications and details to facilitate the design process only. Dryvit is not liable for any errors or omissions in design, detail, structural capability, attachment details, shop drawings, or the like, whether based upon the information prepared by Dryvit or otherwise, or for any changes which purchasers, specifiers, designers, or their appointed representatives may make to Dryvit's published comments.

1.12 MAINTENANCE

A. Maintenance and repair shall follow the procedures noted in Dryvit Outsulation System Application Instructions, DS204.

B. All Dryvit products are designed to require minimal maintenance. However, as with all building products, depending on location, some cleaning may be required. See Dryvit publication DS152 on Cleaning and Recoating.

C. Sealants and flashings shall be inspected on a regular basis and repairs made as necessary.

PART II PRODUCT

2.01 MANUFACTURER

A. All components of the Dryvit TAFS shall be obtained from Dryvit or its authorized distributors.

2.02 MATERIALS

A. Portland Cement: shall be Type I or II, meeting ASTM C150, white or gray in color, fresh and free of lumps.

B. Water: Shall be clean and free of foreign matter.

2.03 COMPONENTS

A. Air/Water-Resistive Barrier (at openings and penetrations).
   1. Dryvit Backstop NT: A vapor permeable, flexible, polymer-based noncementitious water-resistive and air barrier coating available in Texture, Smooth, and Spray. See DS180 and DS181.
   2. Dryvit Backstop NT-VB: A Class 1 vapor retarder, available in trowel and spray versions. When specified, consider having a WVT analysis performed. See DS830 and DS831.
   3. Dryvit Grid Tape™: A 4 in (102 mm) wide, open weave fiberglass mesh tape.

B. Flashing Materials: Used to protect substrate edges at terminations.
   1. Liquid Applied: A flexible water-based polymer material, ready for use.
      a. Shall be AquaFlash and AquaFlash Mesh
   2. Gun Applied: A flexible waterproof material, ready for use.
      a. Shall be Backstop Flash & Fill
   3. Sheet Type:
      a. Shall be Flashing Tape and Surface Conditioner
         1) Dryvit Flashing Tape™: A high density polyethylene film backed with a rubberized asphalt adhesive available in rolls 4 in (102 mm), 6 in (152 mm) and 9 in (229 mm) wide by 75 ft (23 m) long.
         2) Dryvit Flashing Tape Surface Conditioner™: A water-based surface conditioner and adhesion promoter for the Dryvit Flashing Tape.

C. Expanded polystyrene (if applicable): Additional layer of EPS and EPS shapes shall be 1 pcf (16 kg/cu. m) nominal density meeting DS131 and be produced by a manufacturer licensed by Dryvit. Shall be minimum 1in (25 mm) thick. Maximum EPS thickness shall be limited by local code jurisdiction.

D. Machine-Coated EPS Shapes and Starter Boards: Shall be supplied by a manufacturer that subscribes to the Dryvit third party certification and quality assurance program.

E. Base Coat/Adhesive
   1. Cementitious: A liquid polymer-based material, which is field-mixed in a 1:1 ratio by weight with Portland Cement.
      a. Shall be Genesis® or Primus®.
   2. Ready mixed: A dry blend cementitious, co-polymer-based product, field mixed with water.
      a. Shall be Genesis DM™, Primus DM™ or Rapidry DM™.

3. Water Resistant: A high percentage polymer-blend material, which is field mixed with Portland Cement in a 1:1 ratio by weight.
   a. Shall be Dryflex®.
4. ShieldIt™: A 2-pass base coat used over existing EIFS or a Dryvit reinforced base coat to improve impact resistance against woodpeckers when specified.
5. Dryvit AP Adhesive (adhesive only): A moisture cure one-part urethane-based product.

F. Reinforcing Mesh(es): Shall be a balanced open weave, glass fiber fabric treated for compatibility with other System materials and shall be as noted in Paragraph 1.04.C.8 above.

G. Finishes: Shall be the type, color, and texture as selected by the owner/architect and shall be one or more of the following:

1. Standard DPR (Dirt Pickup Resistance): Water based, acrylic coatings with integral color and texture, and formulated with DPR (Dirt Pickup Resistance) chemistry.
   a. Quarzputz®: Coarse texture.
   b. Sandblast®, Sandblast NTX: Medium texture.
   c. Freestyle®, Freestyle Smooth, Freestyle Fine: Fine texture.
   d. Sandpebble®, Sandpebble NT: Coarse pebble texture.
   e. Sandpebble Fine™, Sandpebble Fine NT: Fine pebble texture.
   f. Sandpebble Coarse™: Very heavy pebble texture.
2. Hydrophobic (HDP™) Finishes: 100% acrylic coating with integral color and texture and formulated with hydrophobic properties:
   a. Quarzputz® HDP
   b. Sandblast® HDP
   c. Sandpebble® HDP
   d. Sandpebble® Fine HDP
   e. Lymestone™ HDP
3. Elastomeric DPR (Dirt Pickup Resistance): Water based elastomeric acrylic coatings with integral color and texture, and formulated with DPR chemistry:
   a. Weatherlastic™ Quarzputz: Coarse texture.
   b. Weatherlastic Sandpebble: Rough pebble texture.
   c. Weatherlastic Sandpebble Fine: Fine pebble texture.
   d. Weatherlastic Adobe™: Fine texture.
4. **E**™ Finishes: Lightweight water based acrylic coatings with integral color and texture; and formulated with DPR chemistry.
   a. Quarzputz **E**: Rilled pattern in a regular or random style.
   b. Sandpebble **E**: Rough, pebbly texture.
   c. Sandpebble Fine **E**: Fine pebble texture
5. Medallion Series PMR™ (Proven Mildew Resistance): Water based acrylic coatings with integral color and texture, and formulated with PMR chemistry:
   a. Quarzputz PMR: Coarse texture.
   b. Sandblast PMR, Sandblast NTX PMR: Medium texture.
   c. Freestyle PMR: Fine texture.
   d. Sandpebble PMR, Sandpebble NT PMR: Coarse pebble texture.
   e. Sandpebble Fine PMR, Sandpebble Fine NT PMR: Fine pebble texture.
6. Specialty Finishes and Veneers:
   a. Ameristone: Multi-colored quartz aggregate with a flamed granite appearance.
   b. Stone Mist®: Ceramically colored quartz aggregate.
   c. Custom Brick: Acrylic polymer-based finish used in conjunction with a proprietary template system to create the look of stone, brick, slate or tile.
   d. TerraNeo: 100% acrylic-based finish with large mica chips and multi-colored quartz aggregates.
   e. Lymestone: A premixed, 100% acrylic-based finish designed to replicate the appearance of limestone blocks.
   f. Reflectit: 100% acrylic coating providing a pearlescent appearance.
   g. Finesse™: A Smooth 100% acrylic-based dirt pickup resistance finish.
   h. Tibur Stone™: 100% Acrylic-based finish with the appearance of Travertine Stone.
   i. NewBrick®: A lightweight insulated brick veneer for use with exterior walls.
   j. Ferros™ Finish: - a water-based finish properties that replicates the look of rusting metal.

7. Coatings, Primers and Sealers:
   a. Demandit® Smooth
   b. Demandit® Sanded
   c. Demandit® Advantage™
   d. HDP Water-Repellent Coating
   e. Weatherlastic® Smooth
   f. Tuscan Glaze™
   g. Color Prime
   h. Prymit®
   i. SealClear™

PART III EXECUTION

3.01 EXAMINATION

A. Prior to application of the Dryvit TAFS, the Contractor shall ensure that the substrate is as listed in Section 1.04.B.1.
B. Prior to the installation of the Dryvit TAFS, the Architect or General Contractor shall ensure that all needed flashings and other waterproofing details have been completed, if such completion is required.
C. The Contractor shall notify the General Contractor and/or Architect and/or Owner of all discrepancies. Work shall not proceed until discrepancies have been corrected.

3.02 SURFACE PREPARATION

A. The substrate shall be free of foreign materials such as dust, dirt, moisture, frost and any other materials that inhibit adhesion.
   1. The ICF shall be manufactured by Nudura or approved equal, with buried webs or exposed webs (additional layer of EPS required) and consist of molded EPS. Extruded ICF must include a layer of EPS attached to the ICF.
   2. The surface of the ICF or EPS layer shall be prepared as to be flat and smooth.
   3. The entire surface of the ICF or EPS layer shall be rasped to remove any UV degradation and provide a smooth planar surface.
   4. All voids and gaps greater than 11/16 in (.6 mm) in the ICF or EPS layer shall be slivered and filled using additional pieces of insulation. Note: base coat material shall not be used for leveling. The wall surface must be brought into plane prior to applying coatings.
   5. Where required, provision shall be made for termite control and inspections along the base of the wall. Consult ICF manufacturer regarding proper treatment at grade.

3.03 INSTALLATION

A. The Dryvit materials shall be mixed and applied in accordance with current Dryvit printed Outsulation System Application Instructions, DS204.
   1. Install additional layer of EPS insulation board when specified:
      a. To face of molded ICF (if applicable) using adhesive per DS204 or using mechanical fasteners anchored in attachment strips in the ICF to satisfy structural requirements.
      b. To face of extruded ICF (required) using mechanical fasteners anchored in attachment strips in the ICF to satisfy structural requirements.
   2. Apply edge wrap using Detail Mesh embedded in base coat at all ICF and EPS terminations.
   3. Install all EPS trim by adhering to the existing ICF using Dryvit adhesive and allow to dry.
   4. Apply a layer of the specified reinforcing mesh embedded in wet base coat mixture over the entire wall surface area and trowel smooth. The recommended method is to apply the base coat in two passes. Refer to Dryvit printed Outsulation System Application Instructions DS204.
   5. Allow the base coat mixture to cure a minimum of 24 hours until completely dry. Cool, humid conditions may require longer cure times.
   6. Apply the specified finish in accordance with Dryvit's printed installation instructions.
B. The installation of Pre-Coated EPS Shapes and Starter Boards shall be in accordance with Dryvit Publication DS854.

3.04 FIELD QUALITY CONTROL

A. The Contractor shall be responsible for the proper application of the Dryvit materials.
B. Dryvit assumes no responsibility for on-site inspections or application of its products.

3.05 CLEANING

A. All excess Dryvit materials shall be removed from the job site by the Contractor in accordance with contract provisions.
B. All surrounding areas, where Dryvit coatings have been installed, shall be left free of debris and foreign substances resulting from the Contractor's work.

3.06 PROTECTION

A. The Dryvit coatings and the project shall be protected from damage and exposure to dust and other contaminants until dry.

DISCLAIMER

Information contained in this specification conforms to standard detail and product recommendations for the installation of the Dryvit TAFS as of the date of publication of this document and is presented in good faith. Dryvit Systems, Inc. assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project. To ensure that you are using the latest, most complete information, contact Dryvit Systems, Inc. at:

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