



APPLICATION INSTRUCTIONS

ARCHITECTURAL
SHAPES®
DS1038

TABLE OF CONTENTS

Section 1	Materials Required for Installation of Architectural Shapes
Section 2	Pre-Application Inspection
Section 3	Mixing Instructions
Section 4	Installation of Architectural Shapes
Section 5	Field Quality Control
Section 6	Cleaning

1. Materials Required for Installation of Dryvit Pre-Wrapped Architectural Shapes

- A Dryvit Pre-Wrapped Architectural Shapes
- B Adhesive by Dryvit: Primus®, Genesis®, Primus® DM™, or Genesis® DM™
- C Adhesive by Tremco: TREMPPRO Chem-X Pro
- D Portland Cement: Type I, II or 1L (required when using Primus® or Genesis® material)
- E Reinforcing Mesh: Dryvit Detail Mesh® weighing 4.3 oz/yd² (146 g/m²), measuring 9 ½ in (241 mm) wide and colored blue for product identification
- F Clean potable water

2. Pre-Application Inspection

- A Substrates
 - 1. Acceptable substrates for application of Architectural Shapes
 - a) -EIFS (reinforced base coat)
 - b) Expanded Polystyrene (EPS), Graphite Polystyrene (GPS) and Extruded Polystyrene (XPS) of an EIFS before base coat
 - c) Gypsum Sheathing complying with ASTM C 1396 or C 1177 and treated with a Dryvit/Tremco approved water resistive barrier
 - d) Unpainted Brick, Concrete, or Masonry
 - e) Uncoated Cured Cement Plaster
 - f) Nudura Insulated Concrete Form (ICF)
 - g) Brown coat of a stucco system
 - 2. Wall sheathing must be securely fastened per applicable building code requirements and manufacturer's instructions.
 - 3. The substrate must be structurally sound, clean, dry, free of loose material, voids, projections or any other irregularities.
 - 4. There shall be no planar irregularities greater than ¼ in (6.4 mm) within any 4 ft (1.2 m) radius.

Notify the general contractor and/or builder and/or architect and/or owner of all discrepancies. DO NOT PROCEED UNTIL ALL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3. Mixing Instructions

- A General
 - 1. No additives such as sand, aggregates, rapid binders, anti-freeze, accelerators, etc. shall be added to any Dryvit materials under any circumstances. Such additives will adversely affect the performance of the material and void all warranties.
 - B Adhesive and Base Coat
 - 2. Primus, Genesis
 - a) Open the bucket with a utility knife or lid-off.
 - b) Due to shipping and storage, there may be some separation of materials. Prior to splitting the material and adding Portland cement, mix the material thoroughly. Use a "Twister" paddle or equivalent mixing blade powered by a ½ in (12.7 mm) drill, at 500 – 1200 rpm only. **Note: A minimum 7 amp drill works best for Portland cement based materials. CAUTION: Do not over-mix or use other types of mixing blades as air entrapment and product damage may occur and result in workability and performance problems.**
 - c) Pour ½ of the freshly mixed material [approximately 30 lbs (13.5 kg)] into a clean plastic container.
 - d) Add 1/3 of a bag [approximately 30 lbs (13.5 kg)] of fresh, lump free Type I, Type II, or Type 1L Portland cement. Either gray or white cement is acceptable. Add cement slowly and mix thoroughly. **Do not add large quantities of cement at one time.**
 - e) Clean potable water may be added to the mixture to adjust the workability.
 - 1) Primus®
 - i. Once Primus® and Portland Cement are thoroughly mixed, add water in small increments to adjust for workability. **Do not over water as this will degrade the performance and promote efflorescence.**
 - ii. After mixing, wait five – ten (5 – 10) minutes, then restir to break the initial set. A small amount of additional water may be added for workability. The material will have a pot life similar to other Portland Cement based plaster material and will depend on temperature and humidity. At the end of the pot life, the material will begin to premanently set; re-tempering at this point is not permissable.
 - 2) Genesis®
 - iii. After opening the pail, stir the material and add up to 1 qt (950 ml) of water to the full pail. Split the Genesis into two equal parts.
 - iv. Thoroughly mix the Genesis® with an equal amount (by weight) of Portland cement; wait five – ten (5 – 10) minutes, then re-stir to break the initial set. A small amount of additional water may be

added to adjust for workability. The pot life of the mixture is similar to other Portland cement plaster material and will depend on temperature and humidity. Once the material begins to permanently set, do not retemper material. Mix only as much material as can be conveniently used during a work period.

3. Primus® DM™
 - f) Pail Mixing
 - 3) One 50 lb (23 kg) bag of material will produce approximately 5 gal (19 L) of Primus® DM™ mixture. Add 1.5 gal (5.7 L) of clean potable water into a clean plastic container.
 - 4) Add Primus® DM™ slowly while mixing using a “Twister” paddle or equivalent mixing blade, powered by a ½ in (12.7 mm) drill at 500 – 1200 rpm. **Note: A minimum 7 amp drill works best for Portland cement based materials.**
 - 5) Thoroughly mix until uniformly wetted, adjusting consistency with a small amount of water or Primus® DM™ material.
 - 6) Allow the mixture to set a minimum of five – ten (5 – 10) minutes and mix again to break the initial set. Retemper, adding a small amount of water if necessary. Material must be free of lumps before using.
 - g) Motar Mixer
 - 7) Add 1.5 gal (5.7 L) of clean potable water for each 50 lb (22.7 kg) bag of Primus® DM™ into a clean mortar mixer.
 - 8) Add the Primus® DM™ while the mixer is running. Mix three to five (3 – 5) minutes, shut mixer off five – ten (5 – 10) minutes then run mixer for another two to three (2 – 3) minutes to break the initial set adding a small amount of water if necessary to adjust the workability. The pot life is one – three (1 – 3) hours depending on weather.
4. Genesis® DM™
 - h) Pail Mixing
 - 9) One bag of Genesis® DM™ will produce approximately 5 gal (19 L) of Genesis® DM™ mixture. To a clean 5 gal (19 L) pail, add 1.5 – 1.75 gal (5.7 – 6.6 L) of clean potable water.
 - 10) Add the Genesis® DM™ slowly while constantly mixing with a “Twister” paddle or equivalent mixing blade, powered by a ½ in (12.7 mm) drill, at 500-1200 rpm. **Note: A minimum 7 amp drill works best for Portland cement based materials.**
 - 11) Thoroughly mix until uniformly wetted, adjusting consistency with a small amount of water or Genesis® DM™ material.
 - 12) Allow the mixture to set a minimum of five – ten (5 – 10) minutes and mix again to break the initial set. Retemper, adding a small amount of water if necessary. Material must be free of lumps before using.
 - i) Mortar Mixer
 - 13) Add 1.5-1.75 gal (5.7 – 6.6 L) of clean potable water for each 50 lb (22.7 kg) bag of Genesis® DM™ into a clean mortar mixer.
 - 14) Add the Genesis® DM™ while the mixer is running. Mix three – five (3 – 5) minutes, shut the mixer off for five – ten (5 – 10) minutes, then run mixer for another two – three (2 – 3) minutes to break the initial set adding a small amount of water if necessary to adjust workability. The potlife is 1 – 1 ½ hours depending weather.

Note: Primus DM and Genesis DM will take longer to dry when used as an adhesive than the Primus or Genesis product in a pail.

4. Installation of Architectural Shapes

C General

1. Ensure that the Architectural Shapes have been manufactured using Dryvit base coat and mesh, and Dryvit approved Expanded Polystyrene (EPS).
 - j) The Architectural Shapes shall:
 - 15) Measure a maximum of 4 ft (1.2 m) in length unless approved otherwise.
 - 16) Not exceed the thickness listed in Table 1.
 - 17) Shall be sloped for drainage on the skyward-facing surface at a 3:12 pitch when slope length does not exceed 4”, and a 6:12 pitch for a maximum slope length of 12” if shapes are exposed to precipitation on this surface.
 - 18) Have base coat and reinforcing mesh installed in accordance with typical Dryvit Application Instructions (see DS218, section 9.E.) or manufactured by Dryvit.
 - 19) For installation on an EIFS and on bare EPS/GPS/XPS of an EIFS, have mesh that overhangs a minimum of 2 ½ in (64 mm) from the top and bottom edges to allow for embedment and overlap on to the face of the wall.
 - 20) For installation over a non-EIFS substrate, have reinforced base coat that back wraps a minimum of 2 ½ in (64 mm) behind the top and bottom edges.

Table 1: Maximum Thickness of EPS for Architectural Shapes

Substrate name	AWRB	Maximum Thickness of Insulation	
OPMD, OMD	BSNTX	12 3/4" (324 mm) in total EPS	
OPMD, OMD	EA230	12 1/2" (318 mm) in total EPS	
SE430 OPMD	EA430	12 3/4" (324 mm) in total EPS	
Nudura ICF with 2 5/8" and Outsulation or OPMD	NONE	9 7/16" (240 mm) total EPS	
	BSNTX	9 11/16" (247 mm) total EPS	
	EA230	9 3/8" (238 mm) total EPS	
Nudura ICF with 4 "and Outsulation or OPMD	NONE	7 5/8" (193 mm) total EPS	
	BSNTX	7.35" (187 mm) total EPS	
	EA230	7 1/2" (191 mm) total EPS	
OX	BSNTX	Thickness of XPS	Thickness of EPS shape
		1" (25 mm)	4 5/8" (117 mm)
		1 1/2" (38 mm)	3 13/16" (97 mm)
		2" (51 mm)	2 7/8" (74 mm)
		2 1/2" (64 mm)	2 1/8" (53 mm)
		3" (76 mm)	1 5/16" (33 mm)
		3 1/2" (89 mm)	3/8" (10 mm)
3 3/4" (95 mm)	not permitted		
OX	EA230	Thickness of XPS	Thickness of EPS shapess
		1" (25 mm)	3 13/16"(97 mm)
		1.5" (38 mm)	3.0" (76 mm)
		2" (51 mm)	2.3" (58 mm)
		2.5" (64 mm)	1.5" (38 mm)
		3" (76 mm)	0.8" (20 mm)
		3.5" (89 mm)	Not Permitted
LCMD, OMVS		4" (102 mm)	
Outsulation		13" (330 mm)	
EPS and XPS before base coat		See system listed above	
Gypsum Sheathing complying with ASTM C 1396 or C 1177 Unpainted Brick, Concrete, or Masonry Cement Plaster Brown Coat of Uninsulated Stucco System		13" (330 mm)	
EIFS, non-Dryvit		Thickness depends on fire testing (NFPA 285) for the EIF System	

Notes

1. EPS – Expanded Polystyrene
2. XPS – Extruded Polystyrene
3. BSNTX – Backstop NTX
4. EA230 – ExoAir 230
5. OPMD – Outsulation Plus Moisture Drainage
6. SE430 OPMD – Securock ExoAir 430 Outsulation Plus Moisture Drainage
7. EA430 – ExoAir 430 (only available as factory applied over USG Sheathing – Securock ExoAir 430)
8. OMD – Outsulation Moisture Drainage
9. ICF – Insulated Concrete Forms
10. OX – Outsulation X
11. LCMD – Light Commercial Moisture Drainage
12. OMVS – Outsulation Masonry Veneer System
13. **Note that maximum thickness of architectural shapes is based on NFPA 285 testing and does not apply to Type V structures.**

D Application

2. The Architectural Shapes may be attached directly to the acceptable substrate. **NUDURA ICF MUST BE RASPED IN PREPARATION OF ADHERING TREMCO/DRYVIT AIR-WATER RESISTIVE BARRIERS AND EIFS MATERIALS INCLUDING ARCHITECTURAL SHAPES.**
3. Strike a chalk line on the substrate or EPS wall insulation to mark the location of the Architectural Shapes as detailed in contract documents.
4. Mix adhesive as described in Section 3 above. **Application Tip: To promote high, initial grab, in the area to receive the shape, apply a tight coat of adhesive onto the EPS wall insulation prior to setting the shape. In many cases this will prevent having to use mechanical fasteners or pins to keep the shape in place.**
5. Prior to applying adhesive to the backside of the shape, peel the overhanging mesh from the backside to keep it clean since it will be necessary to embed that mesh into the adjacent wall after the adhesive cures.
6. With a notch trowel measuring 3/8 in x 1/2 in (9.5 mm x 12.7 mm) with notches at 1 1/2 in (38 mm) on center, apply the Dryvit adhesive to the backside of the Architectural Shape.
7. Apply the shape to the wall with firm pressure to prevent slippage. It may be necessary to use mechanical fasteners in conjunction with adhesive or it may be necessary to provide temporary support until the adhesive cures. **WHEN INSTALLING OVER EIFS, ONLY FASTEN INTO INSULATION. DO NOT FASTEN THROUGH THE WATER RESISTIVE BARRIER AND INTO THE SUBSTRATE OF AN EIFS.**
8. Once the adhesive cures the mesh that was peeled back shall be embedded in the base coat mixture. Reinforcing mesh shall extend a minimum of 2 1/2 in (64 mm) onto the adjacent wall surface.
9. Dryvit Detail Mesh is required at the abutment of each Architectural Shape. Cut Detail Mesh to a working length allowing for a 2 1/2 in (64 mm) overlap on either side of the joint. Center mesh over the joint and embed in base coat mixture.
10. Allow base coat to cure prior to finish application.

5. Field Quality Control

- E Dryvit assumes no responsibility for on-site inspections or for workmanship. Tremco CPG, Inc. and/or its distributors will provide field service support if reasonably requested by the Applicator. The designer, general contractor or their appointed representative should make periodic on-site inspections to ensure that the Dryvit materials are being installed in strict accordance with Dryvit specifications and application instructions.

6. Cleaning

- F The applicator shall remove from the job site all remaining materials associated with the application of the Architectural Shapes.
- G The applicator shall clean the work area, adjacent materials and surfaces of foreign materials resulting from their work.
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