

Sprayable, Dry Blend, Polymer-Modified, Cement-Based Adhesive and Base Coat

Description

Genesis DMS is a sprayable, dry blend, polymer-modified adhesive and base coat for use with Dryvit® systems.

Uses

Genesis DMS is used to adhere expanded polystyrene insulation board to approved substrates and to Backstop™ NT. It is also used to embed reinforcing mesh as part of the base coat. Genesis DMS is specifically formulated for spray applications where longer pot life, less false set, extended open time and stronger wet grip are prerequisite. Genesis DMS is also recommended for non-spray applications (e.g., notch-troweling on substrates) when the features mentioned above are deemed important.

Coverage

Approximately 5.0–5.4 m² (55–60 ft²) of surface area per 22.7 kg (50 lb) bag, including adhesive and base coat layers. For adhesive only, 9.0–9.9 m² (100–110 ft²); for base coat only, 10.8–11.7 m² (120–130 ft²).

Properties

Working Time - After mixing, the working time of Genesis DMS is approximately 2-3 hours.

Drying Time - Drying of Genesis DMS is dependent on the air temperature and relative humidity. When used to bond expanded polystyrene insulation board to an approved substrate, a period of at least 24 hours must elapse to allow the Genesis DMS to form a positive bond. The insulation board should not be worked on while the Genesis DMS is curing. Under average drying conditions [21 °C (70 °F), 55% R.H.] protect work from rain for at least 24 hours.

Water Vapor Transmission

(ASTM E 96) – Genesis DMS is permeable to water vapor.

Bond Strength – (ASTM C 297 Modified) – Exceeds the tensile strength of expanded polystyrene insulation [0.14 MPa (20 psi)].

Application Procedure

Job Conditions – Air and surface temperature for application of Genesis DMS must be 4 °C (40 °F) or higher and must remain so for a minimum of 24 hours. Genesis DMS shall not be applied to the substrate when substrate and/or air temperatures are above 38 °C (100 °F).

Temporary Protection – Shall be provided at all times until adhesive, base coat, finish, permanent flashings, sealants, etc. are installed to protect the wall from weather and other damage.

Substrate Preparation

Application is to Dryvit-approved substrates. Typically, these include exterior grade gypsum sheathing, DensGlass Gold®, exterior cement board, clean unpainted concrete, concrete block, brick and stucco. Substrate must be flat within 6 mm (¼ in) in any 1.2 m (4 ft) radius. For direct application on substrate including troweling or spray/troweling, substrate shall be clean, smooth and free of voids and projections. Mortar joints in masonry shall be struck flush. Recessed mortar joints and other voids shall be skimmed to provide a smooth surface. Material used to smooth and fill can be Genesis, Genesis DM, or Genesis DMS. **Genesis DMS is not approved as an adhesive direct to wood-based sheathings, but may be applied directly to substrates coated with Backstop NT.**

Surface Preparation – Surface must be unpainted, clean, dry, structurally sound and free of efflorescence, grease, oil, form release agents and curing compounds.

Mixing

Sprayer – Connect a source of clean, cool potable water to a spray machine suitable for EIFS applications. Regulate the water flow rate to provide the desirable mixing consistency of material. Material may thicken up upon leaving the mixing cylinder at a given water flow and loosen up after pumping. Genesis DMS provides a good safe margin for mixing and pumping that may allow the mixture to be pumped at a relatively thick consistency. The consistency for application must be determined after pumping.

Bucket – One bag of Genesis DMS will produce approximately 19 L (5 gal) of Genesis DMS mixture. To a clean 19 L (5 gal) pail, add 6.5-8.5 L (7-9 quarts) of clean, cool potable water. Add the Genesis DMS slowly while continuously mixing with a Demand Twister or Wind-lock B-MEW, B-M1, or B-M9 mixing paddle at 450 – 600 rpm, driven by a high-torque 12 mm (½ in) drill. Mix until uniformly wetted, adjusting consistency with a small amount of water or Genesis DMS. Let set for 5 minutes. Re-temper, adding a small amount of water if necessary. Material must be free of lumps before using.

Mortar Mixer – Add 6.5-8.5 L (7-9 quarts) of clean, cool water for each 22.7 kg (50 lb) bag into the mixer. Add the Genesis DMS while the mixer is running. Let mix 3-5 minutes, shut mixer off for 5 minutes, run mixer for another 2-3 minutes to break set and add a small amount of water if necessary. The pot life is 2-3 hours depending on temperature.

Application

Adhesive – Genesis DMS is applied to the substrate using a trowel or spray equipment. Using a notched trowel, immediately trowel the wet mixture to create a vertical adhesive pattern. The

notches shall be minimum 9 mm (3/8 in) wide, 12 mm (1/2 in) deep and spaced a maximum of 38 mm (1 1/2 in) on center. As an alternative, the Genesis DMS may be applied to the back of the EPS insulation board in a vertical notched trowel pattern. Immediately place the insulation board on the substrate, ensuring that no Genesis DMS mixture gets into board joints. Do not allow the Genesis DMS mixture to form a skin before positioning the insulation board on the substrate as it will affect the bond strength.

Base Coat – Sliver all gaps between EPS board joints and rasp the entire face of the insulation so that there are no irregularities greater than 1.6 mm (1/16 in). Apply the base coat to the entire surface of the insulation board using spray equipment or trowel. Fully embed the reinforcing mesh in the wet base coat troweling from the center to the edge of the reinforcing mesh so as to avoid wrinkles. The reinforcing mesh shall be continuous at all corners and lapped or butted (Panzer® 15 or 20 only) in accordance with Dryvit's recommendations. The overall minimum base coat thickness shall

be sufficient to fully embed the reinforcing mesh. The recommended method is to apply the base coat in two passes. All areas requiring higher impact performance shall be detailed on the project drawings and described in the contract documents. The application shall be installed in accordance with Dryvit's recommendations.

Clean Up – Clean tools with water while Genesis DMS mixture is still wet.

Storage

Genesis DMS bags must be protected from moisture. In hot weather, the bags should be stored off the ground in a cool, dry location, out of direct sunlight. Warm material will accelerate the set. The shelf life is 1 year from date of manufacture when properly stored in unopened bags.

Cautions and Limitations

- Clean, cool potable water may be added to adjust workability. Do not over-water. Warm water will accelerate the set.
- Shall not be used to adhere EPS directly to wood-based substrates.

- Mixing paddles and pails must be clean.
- Substrate and air temperatures must be 4 °C (40 °F) or higher and rising at time of application.
- Wear protective eyewear and clothing since the product does contain cement, which can irritate.
- Periodically remove an EPS board to check for proper adhesion.
- Because of reduced working time, it is recommended that Genesis DMS not be applied to the substrate when substrate and/or air temperatures are above 38 °C (100 °F).

Warranty

Genesis DMS is covered by and subject to the terms and conditions of Dryvit limited materials warranty applicable to the Dryvit system used. Dryvit makes no other warranties expressed or implied. Contact Dryvit for full details.