GENESIS DM PLUS

Polymer modified cementitious adhesive and base coat



PRODUCT DESCRIPTION

Genesis DM Plus is a ready to use polymer modified cementitious powder only requiring the site addition of potable water to produce a high performance adhesive and base coat. It is used as an adhesive for direct fix of Dryvit Square Edge Expanded Polystyrene (EPS) insulation boards to a wide variety of substrates and as base coat for embedment of reinforcing mesh in the Dryvit Outsulation and ACR systems. The product has been formulated to have excellent workability, initial grab and open time properties and is available in grey and white cement versions.

FEATURES & BENEFITS

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FEATURE	BENEFIT
Polymer modified	Excellent adhesion to substrates and EPS. As an adhesive no additional mechanical fastening needed
Hydrophobic additives	No primer required
One part product	Just measure water, add and mix
Special filler blend	Excellent trowelling properties

TYPICAL SUBSTRATES

- Dryvit Standard EPS (white)
- Dryvit LL EPS (grey)
- Concrete
- Brick
- Block work or aerated autoclaved concrete
- · Lightweight steel or timber framed structures using appropriate sheathing boards
- Sheathing boards Cement particle board, cement fibre, exterior gypsum, calcium silicate, magnesium oxide.

DS.EN.04.50.15



USES

As an adhesive for bonding both Dryvit Standard and LL Square Edge EPS insulation boards to concrete, masonry and sheathing board substrates and as a base coat for the embedment of reinforcing mesh as part of the Dryvit Outsulation and ACR systems.

PACKAGING

25 kg moisture resistant bags.

COLOUR

Available in grey and white.

COVERAGE

 $2.5 \cdot 4.5 \text{ kg/m}^2$ for adhering boards to achieve a minimum 40% contact between the substrate and EPS insulation (7 to 12 m² per bag).

2.5-4.5 kg/m² for embedding Standard Plus meshes as a base coat (7 to 12 m² per bag)

5.0-9.0 kg/m² for adhering boards and embedding Standard Plus mesh as a base coat (3.3 to 6.0 m^2 per bag)

5.0-5.5 kg/m² for adhesion of lamella fire barriers (5.5-6.0 m² per bag).

Note: The actual coverage largely depends on the type of surface, its preparation and flatness, the method of application and the experience of the contractor.



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SUBSTRATE PREPARATION

The surface should be smooth, clean, dry, well bonded, free from deposits, efflorescence, greasy spots and other contaminants impeding application. On porous or friable substrates, Strongsil or Primax primer is applied in accordance with relevant product data sheet.

MIXING

Carefully measure 5.5 - 6.0 litres of water into a plastic bucket for one 25 kg bag of Dryvit Genesis DM Plus. Slowly add powder and using a slow speed drill (400–500 rpm) and paddle mix for 5 minutes until homogenous. Allow to stand for 5 minutes then re-mix. Note: The mixture may stiffen on standing. Re-mix the product to regain a workable consistency, but DO NOT add more water, the workability time is 1-2 hours depending on weather conditions.

APPLICATION CONDITIONS

At the time of application and during the next 24 hours, air and substrate temperature may not drop below $+5^{\circ}$ C. The Genesis DM Plus should be protected against water during this time. Avoid work in direct sunlight and windy conditions.

APPLICATION METHOD

Adhesive

For back wrapping at system terminations a ribbon of Genesis DM Plus shall be applied to the substrate and Detail mesh embedded into the wet mixture and leaving sufficient mesh to wrap around the board and a minimum 65 mm onto the face of the insulation board. Keep the mesh which is not to be embedded clean.

Apply Genesis DM Plus to the back of the insulation board, not to the substrate. The Ribbon and Dab method is usual for fixing insulation to solid substrates with a ribbon around the entire perimeter and eight dabs placed on the interior area of the insulation board. The notched trowel method is usual for fixing insulation to sheathing board and flat substrates and is created using a notched trowel to form adhesive beads running vertically when the insulation board is placed on the wall.

Position the board horizontally on the substrate and press the board gently to the substrate and slide it into position. Apply firm pressure over the entire surface of the insulation board to ensure uniform contact and high initial grab. Using a margin trowel, clean the insulation board edges of any Genesis DM Plus mixture. Ensure that the insulation board joints are butted tightly and are level and flush. Do not allow Genesis DM Plus to remain in board joints since material in board joints can result in cracking. Once the insulation board and Detail mesh are in place, wait a minimum of 24 hours prior to working on the surface of the insulation board to prevent any movement which may weaken the bond of the adhesive mixture to the substrate.

Lamella Stone Wool fire barriers must be cut or constructed from Stone Wool HD Slab and be a minimum 100 mm high x total thickness of external wall insulation. Genesis DM Plus shall be applied in a continuous coat to the lamella face of the barrier and installed with firm pressure to the substrate to ensure there are no gaps between the barrier and substrate.

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STORAGE

Store in sealed original packaging, in dry conditions at temperatures between 4°C and 38°C, for a maximum of 12 months from the production date indicated on the packaging. Protect the packaging against damages and direct impact of the atmospheric conditions and moisture.

CAUTION AND LIMITATIONS

Apply in dry conditions. At time of application and for the following 24 hours air and substrate temperatures must not drop below $+5^{\circ}$ C or rise above $+30^{\circ}$ C. The product must be protected against direct sun and windy conditions so sheeting the façade or the scaffold is advised to achieve this. Surrounding windows window cills etc must be properly protected during application and early curing.

In common with all cementitious based materials, in cool damp or high humidity conditions surface efflorescence can occur which requires removal before applying primers or finish. Special care should be taken when applying Genesis DM Plus white in conditions likely to promote efflorescence as it too is white and not readily visible. Refer to the latest Dryvit Technical Note on Winter working - Efflorescence for information on detection and removal.

CLEANING

All equipment must be washed with clean water immediately after use. Disposal must be in accordance with local and national legislation and must not be emptied into drainage systems.

HEALTH AND SAFETY

Refer to the Outsulation or ACR System Application Instructions and the product Safety Data Sheet.



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APPLICATION METHOD

Base coat

Standard Plus and Intermediate 370 meshes

Using a stainless steel trowel, apply the mixed Genesis DM Plus on the entire surface of the insulation board to an area slightly larger than the width and length of a piece of reinforcing mesh, in a uniform thickness of 1.5 mm. The reinforcing mesh may be installed either vertically or horizontally. Immediately place the reinforcing mesh against the wet Genesis DM Plus mixture and with the curve of the mesh against the wall, trowel from the centre to the edges avoiding wrinkles, until the mesh is fully embedded and not visible. Trowel smooth to a uniform thickness slightly more than the thickness of the reinforcing mesh. Allow this layer to take up until firm to the touch and then trowel a second tight coat over the first to fully cover the reinforcing mesh. The result should be such that the reinforcing mesh is approximately centered within the base coat thickness. Do not allow the first pass to completely dry prior to the second pass application or an excessive amount of Genesis DM Plus will be necessary to fully coat the wall surface.

The reinforcing mesh shall be continuous at corners and mesh edges over lapped not less than 100 mm or 65 mm when overlapping with the back wrap mesh. Do not lap the reinforcing mesh within 200 mm of a corner.

Panzer meshes

Using a stainless steel trowel, apply the mixed Genesis DM Plus on the entire surface of the insulation board to an area slightly larger than the width and length of a piece of reinforcing mesh, in a uniform thickness of 3.0 mm. Immediately place the reinforcing mesh against the wet Genesis DM Plus mixture and with the curve of the mesh against the wall, trowel from the centre to the edges avoiding wrinkles, until the mesh is fully embedded and not visible. Continue in the same manner until the entire area requiring Panzer mesh is covered. Caution: Adjacent pieces are to be tightly butted, do not lap the Panzer mesh. Allow the Panzer base coat to cure a minimum of 24 hours prior to applying Dryvit's Standard Plus reinforcing mesh, see application instructions above.

For more application details refer to the Dryvit Outsulation and ACR System Application Instructions.

DRYING TIME

Prior to rasping EPS and application of the base coat and mesh, leave approx. 24 h, at $+20^{\circ}$ C and 55% relative humidity. At lower temperatures and higher relative humidity the drying time may be longer.

Information contained in this product data sheet conforms to the standard detail recommendations and specifications for the installation of Dryvit UK Ltd. products as of the date of publication of this document and is presented in good faith. Dryvit UK Ltd. 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 UK Ltd.

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