

PRO-510

INSULATED UNDERCOAT

PRODUCT DATA SHEET

PRO-510 Insulated Undercoat is a lightweight insulating undercoat designed for internal wall applications where improved thermal performance and a stable surface for plaster finishes are required.

Formulated with hydrated lime, Portland cement, mineral fillers and perlite, it creates a breathable, durable layer that helps improve the thermal efficiency of internal walls while providing a reliable background for subsequent plaster finishes.

Intended Uses

PRO-510 Insulated Undercoat is designed for internal application on dense mineral substrates, including blockwork, masonry, stone and concrete. It is particularly suitable for refurbishment projects where internal walls require both thermal improvement and surface preparation prior to plastering. The undercoat can be applied in multiple layers to build thickness, helping to level uneven substrates while enhancing thermal performance before the application of finishing plasters.



Technical Specification

Composition

Hydrated lime, Portland cement, mineral fillers and perlite.

Colour

Grey

Quantity per Unit

30 l/unit

Granulation

0-2mm

Consumption

Approx. 1.1 l/m²/cm

Thermal Conductivity

Approx. 0.071 W/mK

Compressive Strength (28 days)

≥ 2 MPa

Soluble chromium VI content

≤ 0.0002% (2 ppm)

Water mix proportions

Approx. 14 l/unit

Application time

Approx. 3 hours

Minimum/Maximum Layer Thickness

20-120mm

Please note: These figures may vary based on the substrate and application method.

Please see the reverse of this page for directions for use.

Directions for use

Substrate Preparation

Substrates must be sound, clean, dry and free from dust, loose material and contaminants before application. Any weak, damaged or friable areas should be removed and repaired prior to use. High-suction backgrounds should be primed with EWI-301 Water-Based Primer, while smooth or low-absorbency surfaces may require PRO-313 Green Internal Grit to improve adhesion. All primers must be allowed to dry fully before application begins.

Product Preparation

The dry mix should be combined with approximately 14 litres of clean, cool water per 25kg bag and mixed mechanically until a homogeneous consistency is achieved. Mechanical mixing should be carried out for around 2 to 3 minutes. When mixing by hand, the mortar should be mixed for approximately 4 to 5 minutes. Do not add extra water once the material has begun to set.

Application

PRO-510 Insulated Undercoat may be applied using a hawk and trowel or suitable spray equipment. The material can be applied in layers from 20mm to 120mm, with each individual layer applied at a maximum thickness of 30mm. The undercoat should be applied evenly across the surface and levelled using a straightedge to remove excess material and achieve a consistent finish. The surface should be left open and must not be smoothed, floated or rubbed. Additional layers may be applied once the previous coat has sufficiently set, typically the following day.

Application Conditions

Application should be carried out in ambient and substrate temperatures between 5°C and 25°C. During application and drying, the material must be protected from rapid drying, frost, rain, excessive heat and strong wind. Freshly applied material should be allowed to cure under suitable site conditions to support proper performance.

Clean-up

All tools and equipment should be cleaned with clean water immediately after use. Once hardened, the material can only be removed mechanically. Waste material should not be emptied into drainage systems.

Packaging & Storage

PRO-510 Insulated Undercoat is supplied in 30L/25kg bags. Store unopened bags off the ground in a dry, well-ventilated area above 5°C. When stored correctly, shelf life is up to 12 months from the date of manufacture.

Compliance with Standards

PRO-510 Insulated Undercoat is manufactured in accordance with relevant product performance requirements for insulating plaster materials. Installation should be carried out in line with current EWI Pro guidance, relevant British Standards and project-specific specification requirements.

Safety Measures

Wear appropriate PPE, including gloves, eye protection, suitable respiratory protection and protective clothing. Wet mortar may irritate or burn skin and eyes. Remove contaminated clothing immediately, wash skin thoroughly with water after contact, and rinse eyes cautiously with clean water if contact occurs. Refer to the relevant Safety Data Sheet for full guidance on handling, storage and disposal.

General Information

This data sheet replaces all previous editions. The information provided is based on current knowledge and practical experience, and while it has been compiled with care, it is not guaranteed to be accurate, complete or suitable for all applications. It is the responsibility of the user to verify the product's suitability for their specific use case. No legal obligations are established by this document.

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