

## THERMAL-INSULATION PLASTER

Made with BIO-E



**TERMO-BI** is a fibre-reinforced, thermal insulation plaster with a low specific weight, made with BIO-E natural hydraulic lime and selected, expansive perlite and silicon, classified NHL5 with reference to UNI EN 459-1 regulations, **TERMO-BI** combines low thermal conductivity with a high ease of application on different types of masonry structures, along with top-level firmness and durability over time. Its high degree of permeability allows for the making of thermal insulation or restoration without risk of interstitial condensation, to the benefit of living conditions and the health of the masonry.

**TERMO-BI** conforms to UNI EN 998-1 regulations regarding "Specifications for mortar for masonry – interior and exterior plaster mortars," and possesses the CE conformity marking in accordance with applicable law.

**Comes in:** 13 kg. bags

### FIELD OF APPLICATION

**TERMO-BI** is to be used for the making, by machine, of permeable, thermal insulation plaster for exteriors with thicknesses greater than 2 cm. on masonry work in hollow and solid brick, stone and concrete. Subsequent coats will be necessary for thicknesses greater than 4 cm., respecting proper wait times between one coat and the next. For thicknesses greater than 8 cm., application of a reinforced smoothing coat with TASSULLO TA01/02 smoothing products and fibreglass mesh with grammage greater than 150 g/m<sup>2</sup> is recommended.

The resulting plaster will be permeable and will prevent passage of heat, keeping the average temperature of the masonry and interior wall higher, with benefits for energy savings and personal comfort. Use as interior plaster is subject to prior verification of the absence of interstitial condensation accumulation in the masonry.

**TERMO-BI** can also be applied on mixed or discontinuous masonry with or without traditional plaster.

**TERMO-BI** constitutes a valid alternative to thermal insulation by means of insulating panels or sheets.

### MIXTURE PREPARATION

**TERMO-BI** is prepared by mixing only and exclusively with water in the ratio of approximately 10 litres/bag.

The mixture is to be prepared automatically by means of a plastering machine that provides for dosage of the water for the mixture and for the pumping/application of the material onto the wall.

### APPLICATION

**TERMO-BI** is to be applied by means of a plastering machine for ready-to-use plaster and a straight-edge on its edge. It is recommended to limit the working of the material on the wall to avoid excessive compacting of the mixture.

**TERMO-BI** is to be finished, after adequate curing time, with TASSULLO TA01/02 smoothing product which can subsequently be painted or finished with TASSULLO Coloured Finish or other mineral finishes in paste or powder.

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**WARNINGS**

**Surface preparation:** **TERMO-BI** is to be applied on firm and clean surfaces, free of dust, salt deposits, oils, crumbling areas, mildew and other organic material. In the case of existing, traditional plaster, ensure the firmness and adhesion of the plaster to the masonry; in the case of cracked plaster, ensure the stability of the cracks before applying the new plasterwork.

**Low-absorbency surfaces:** application on concrete or particularly-smooth surfaces with little or no water-absorbance capacity must be made after applying a TASSULLO TA02/TA04 smoothing product (to be applied with a plastering machine or by hand) as a rough coat and adhesion bridge.

**Wet surfaces:** do not apply on moist surfaces or surfaces impregnated with water or where water may come into prolonged contact with the material in the first week after application.

**Protection against freezing:** do not apply at temperatures lower than 5°C and protect the mortar from freezing for the first 48/72 hours after application; the use of antifreeze additives which may hinder workability of the mortar is, however, not recommended.

**High temperatures/absorbent surfaces:** it is good practice in the case of high temperatures or highly-absorbent surfaces to take all necessary precautions in order to protect the material from too-rapid drying.

**TECHNICAL DATA**

Granulometry (UNI EN 1015-1)	from 0 to 3 mm
Water addition	0.7 l/Kg (approx. 9 l/bag)
Application thickness	> 2 cm
Volumic mass (UNI EN 1015-10)	375 Kg/m <sup>3</sup>
Yield	approx. 4 Kg/(m <sup>2</sup> x cm)
Thermal conductivity (EN 12667)	Class T1 $\lambda = 0,091 \text{ W/(m x } ^\circ\text{K)}$
Vapour diffusion resistance (UNI 9233)	$\mu = 5$
pH	> 10.5
Fire reaction class	A1

Technical data from laboratory-prepared mortar obtained by mixing in a mixer, in conformance with EN 196-1 regulations, for 15 seconds at low speed followed by 5 seconds at high speed.

**TECHNICAL SPECIFICATIONS**

*TASSULLO TERMO-BI thermal insulation plaster made with BIO-E natural hydraulic lime, classified NHL5 in reference to UNI EN 459-1 regulations, with expansive perlite and silicon, with volumic mass of 375 Kg/m<sup>3</sup>, thermal conductivity of 0.091 W/(m x °K) (classification class T1 per UNI EN 998-1 regulations), vapour diffusion resistance ( $\mu$ ) of 5, pH > 10.5 and A1 fire reaction class, suitable for making permeable, thermal insulation plaster with thicknesses greater than 2 cm. on masonry work in stone, hollow or solid brick, concrete, or on existing plaster which is firm and maintains good adhesion. Resulting plasters are to be finished after an adequate curing period, with a TASSULLO TA01/02 smoothing product and successive mineral finish or paint.*

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Use of this product implies that the customer has verified its suitability for the particular use it is to be employed for, and assumes all responsibility deriving from said use. The data reported here has been obtained by laboratory measurements. TASSULLO MATERIALI S.r.l. reserves the right at any moment and without prior notice to make any changes in the technical data.