THERMOSAN®

MACRO-POROUS CEMENT-BASED MORTAR FOR COATING OF SUBSTRATES DAMAGED BY RISING DAMPNESS

DESCRIPTION

THERMOSAN® is an one-component macroporous mortar composed of hydraulic binders and light aggregates, de-humidifying and sound-absorbent, which forms a coating for the restoration of substrates damaged by rising dampness.

APPLICATION FIELDS

- Elimination of rising dampness or the condensation caused by cold wall effect.
- It is applied over damp substrates, interior or exterior, underground or not, for walls and wall footings.

ADVANTAGES

- Very permeable to water vapour.
- Delays the appearance of salts on concrete and masonry.
- Very low thermal conductivity, provides insulation against extreme changes in temperature, preventing the cold wall effect.
- Its self-ventilating property drains and dries the substrate.

APPLICATION INSTRUCTIONS

Surface preparation
THERMOSAN® has been designed to be applied over practically any firm, structurally sound, clean surface, free from grease, oils, gypsum plaster, fungus, dust or paints. Eliminate any remains of previous renders at least 90 cm above the highest point of the capillary dampness. Do not apply over gypsum or plaster substrates. If flakes or scaling are present, they should be eliminated by patching with ***THERMOSAN***® without pressing excessively. Over very uneven, weak or non-absorbent substrates mechanically fix a chicken mesh reinforcement on the substrate, prior to the application of ***THERMOSAN***®. The substrate can be damp avoiding free standing water. Dampen the surface slightly if temperature is high.

Mixing
THERMOSAN® is mixed only with water. Each 25 kg bag requires between 4,5 and 5 litres of clean water (18 to 20 %). Use a mixer or mechanical stirrer. Add the powder into 4,5 litres of water and mix for about 10 minutes.

Allow the product to rest for 5 minutes. Remix again for another 5 minutes, adding between 0,25 to 0,5 litres of water until obtaining a homogeneous mortar appearance of appropriate consistency for its application.

Manual mixing or the use of a concrete mixer does not furnish enough mixing to provide the product all its properties. For manual mixing methods, proceed to the mixture of the product for at least 20 minutes until getting a semi-dry consistency mortar, afterwards add total mixing water. Never surpass the maximum amount of water indicated.

Application
Apply a thin first layer, pressing well or a slurry coat with ***MAXBRUSH***® type brush to improve adhesion. Before this coat dries, spread the mortar with a trowel by spattering on the surface without pressing excessively, to a thickness between 2 to 5 cm and in a single layer if possible.

If greater thickness is required, allow one day before applying another layer over it, which will previously be left rough to ease the bonding of the next one. Finally, if the product is required as finishing coat in indoor areas, it can be smoothed with an aluminium straight

edge, without pressing excessively in order to avoid reducing the porosity of the mortar.

Application conditions
Do not apply below 5 ºC nor if this temperature is expected the following 24 hours. Do not apply on frosted or frozen surfaces.

Curing
The application must be protected from rain with plastics or tarpaulins and from excessive heat (> 30 ºC) with damp cloths or light water spray.
Allow the product to set for at least 7 days prior to the application of the final coating, ***THERMOSAN® – F***, or any other type of finish which would be very permeable to water vapour.

Cleaning
Clean tools with water immediately after use. Once hardened, can only be removed mechanically.

CONSUMPTION

THERMOSAN® is applied with thickness between 2 to 5 cm in a single coat if possible, with an estimative consumption of 1 to 1,2 kg/ m^2/ mm thickness and depending on substrate conditions.
Higher thickness per coat provides the better ventilation of the substrate.

IMPORTANT INDICATIONS

For any application not specified in this technical bulletin or further information, consult our Technical Department.

PACKAGING

THERMOSAN® is supplied in 25 kg bags and it is available in standard grey colour.

STORAGE

Twelve months in its original unopened packaging, in a dry covered place protected from humidity and frost, with temperatures above 5 ºC.

SAFETY AND HEALTH

THERMOSAN® is not a toxic product but it is an abrasive compound in its composition.
Avoid contact with eyes and skin. Gloves and safety goggles must be used during the mixing and application. In case of eye contact, rinse thoroughly with clean water but do not rub. In case of skin contact, wash affected area with water and soap. If irritation persists, seek medical attention. It is available Safety Data Sheet of ***THERMOSAN®*** by request.
Disposal of the product and its empty packaging must be made by the final user and according to official regulations.

TECHNICAL DATA

Characteristics of the product	
CE Marking, EN 998-1 *Description: Rendering and Plastering Mortars, classified as Renovation Mortar (R)* *Uses: walls, ceilings, columns and partitions in indoor/outdoor construction*	
Appearance and colour	Grey powder
Maximum granulometry (mm)	1
Powder mortar density (g/cm³)	1,30 ± 0,10
Mixing water (% weight)	19 ± 1
Application and curing conditions	
Minimum substrate and environment application temperature (°C)	> 5
Open time at 20 °C and 50% R.H. (hours)	1
Setting time at 20°C and 50% R.H. (hours) - Initial - Final	 6 8 - 24
Drying time for 2nd coat application at 20°C and 50% R.H. (hours)	24
Curing time for ***THERMOSAN®* -F** application at 20°C and 50% R.H. (days)	7
Technical characteristics	
Density of the cured and dry mortar (g/cm³)	1,4 ± 0,1
Compressive strength at 28 days, EN 1015-11 (MPa - Category)	8 - CS IV
Flexural strength at 28 days, EN 1015-11 (MPa),	3
Adhesion and break pattern, EN 1015-12 (N/mm² - FP)	> 0,5 - A
Water absorption after 24 hours, EN 1015-18 (kg / m²)	≤ 0,3
Capillary water absorption, EN 1015-18 (mm)	≤ 5
Water vapour permeability, EN 1015-19 - Water vapour pemeance (kg/m² · s · Pa) - Water vapour permeability Λ (kg/m² · s · Pa) - Water vapour permeability coefficient μ	 $17 \cdot 10^{-10}$ $17 \cdot 10^{-12}$ 12
Reaction to the fire, EN13501-1 (Class)	A1
Consumption / Thickness	
Minimum / maximum thickness per layer (mm)	20 - 50
Consumption (kg /m² · mm thickness)	1,0 - 1,2

GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. ***DRIZORO®, S.A.U.*** reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. We shall not accept responsibility exceeding the value of the purchased product. The data shown on consumptions, measurement and yields are for guidance only and based on our experience. These data are subject to variation due to the specific atmospheric and jobsite conditions so reasonable variations from the data may be experienced. In order to know the real data, a test on the jobsite must be done, and it will be carried out under the client responsibility. We shall not accept responsibility exceeding the value of the purchased product. For any other doubt, consult our Technical Department. This version of bulletin replaces the previous one.

DRIZORO Construction Products

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