

FIELD OF USE FOR 4th DIVISION PRODUCTS

THERMOVENT

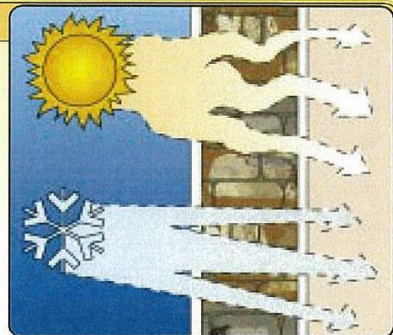
FIBRE-REINFORCED, FIRE RETARDANT,
THERMAL INSULATING RENDER FOR EXTERIOR INSULATION SYSTEMS

PROBLEM

Thermal insulation is an extremely important problem also due to the cost of heating homes.

When it is also necessary to protect the transpirability of the walls it is necessary to use special plasters suitable also for being applied on old humid masonry.

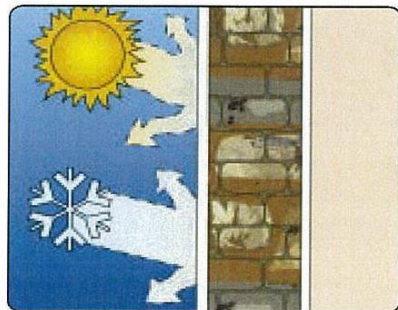
The fire proofing of parts of the building work requires suitable products which are easy to apply on any architectural solution.



Wall with normal plaster

DESCRIPTION

THERMOVENT is a dry ready mixed render with special light inert material containing pure silicates, damp-proof bonding agents, fibres and additives which assist application even where thick layers are required, ensuring maximum adhesion and compatibility on any type of masonry/brickwork.



Wall with THERMOVENT plaster

The special formulation with a completely inert material makes THERMOVENT a unique render in its class which put characteristics of thermal insulation, mechanical resistance, durability, permeability and absolute resistance to fire together.

FIELDS OF USE

THERMOVENT is ideally suited to thermally insulate the exterior of buildings on any type of masonry/brick-work.

The excellent degree of permeability makes it suitable for insulating and refurbishing old, damp brickwork. Furthermore, due to its totally natural formulation which includes silicate, it comes under the category of products with class 0 reaction to fire in accordance with the Italian directorate, and in category A1 when tested in accordance with German regulations DIN 4102, it is a non combustible material and therefore may be applied in all instances where fire protection is required.

THERMOVENT meets the total ecological

requirements for insulating render and may be widely used in bioarchitecture.

COVERAGE

Coverage: approx. 5 Kg/m²/cm.

PRECAUTIONS

- Minimum application temperature +5° C.
- In hot weather carefully bathe surfaces with water.
- Joints of different elements must be reinforced with a special fibre glass mesh, RETINVETRO for renders, which is included in the last plaster layer.
- Do not mix quantities of less than a bag at a time.

SAFETY REGULATIONS

- While mixing, protect respiratory organs by wearing suitable mask.
- In case of eye contact, wash thoroughly and immediately with water.
- Ventilate the workplace.

METHOD OF USE

SURFACE PREPARATION

Carefully clean surfaces to be rendered by removing loose particles, oils, dust and general dirt either by chiselling, brushing or high pressure water cleansing.

MIX PREPARATION

THERMOVENT is ready to use and only needs to be mixed with approximately 40% clean water.

APPLICATION

Application may be carried out equally by hand or mechanical means achieving 4-5

cm thicknesses per coat without problems. The exceptional handling qualities allow application on any architectural solution.



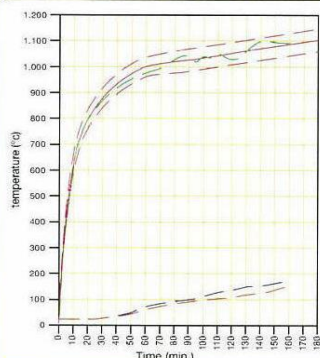
Preparation of THERMOVENT plaster

THERMOVENT

TECHNICAL CHARACTERISTICS

Appearance	powder
Colour	grey
Apparent dry density	0,4 kg/litre
Apparent mortar density	0,6 kg/litre
Resistance factor to water diffusion	$\mu=6$
Water absorption coefficient	$w=0,4 \text{ kg/m}^2 \times 0,50 \text{ h}$ (DIN 52617)
Thermal conductivity coefficient	$0,08 \text{ kcal/m}^2 \text{ h } ^\circ\text{C}$
UV A-B Test ageing	no alteration
Fire classification	0
Fire resistance	REI120
Shelf life in original packaging	12 month

FIRE-RESISTANCE TEST



- Theoretical heating temperature of the stove and tolerance limits
- Experimental heating temperature of the stove
- Average temperature on the face not exposed to the wall flame (T1-T5)
- Maximum temperature on the face not exposed to the wall flame (T1-T5)

SUMMARY OF THERMAL-HYGROMETRIC TESTS ON EXTERNAL PERIMETRIC STRUCTURES WITH "THERMOVENT" THERMAL INSULATING PLASTER

STRUCTURE CODE	BASIC STRUCTURE TYPE (thickness in mm)	THERMAL RESISTANCE OF BASIC STRUCTURE UNI 7537 (W/m ² K)	THERMAL RESISTANCE OF STRUCTURE INSULATED WITH THERMOVENT (50 mm thickness 'W/m ² K)	EXTERNAL CHARACTERISTICS
M1/M5	LECA - 300	0,82	0,57	Room temperature +20°C
M/M6	BRICK - 300	1,78	0,91	Outdoor temperature -5°C
M3/M7	POROTON - 300	0,89	0,6	Interior relative humidity 50%
M4/M8	STONE/FULL/BRICK/480	1,7	0,89	Exterior relative humidity 90%



DAMP-PROOF



ALLOWS TO BREATHE



MIX MECHANICALLY



SPRAY APPLICATION



TO BE APPLIED BY TROWEL



MINIMUM APPLICATION TEMPERATURE



STORE IN DRY PLACES



RECYCLABLE



NON-DAINGEROUS WASTE

ADVANTAGES

- High thermal insulation.
- Thick layers may be applied with only one coat.
- Improved mechanical resistance.
- Absolutely inert to fire.
- Ecological product compatible with refurbishment work on old masonry.

PRODUCT



PACKAGING

11 kg sacks.

CERTIFICATION

Certification by "Istituto Giordano".

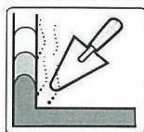
index
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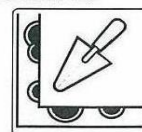
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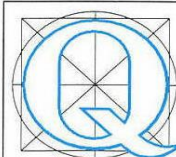
Restoration of damp masonry using damp-proofing renders



Waterproofing with vapour permeable cements



Concrete refurbishment



TOTAL QUALITY
Q.S. ISO 9001

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