

DACOTERM[®] *evolution*

**Insulating, natural, mineral, fiber-reinforced,
 water-repellent render with ergothermal properties.**



DESCRIPTION

DACOTERM EVOLUTION is an ergothermal, mineral render with high insulating capacity produced with light, natural, inert materials. Dacoterm Evolution will not deteriorate, will not alter in time, and is not affected by insects or mould. Dacoterm Evolution withstands the effects of atmospheric agents. Dacoterm Evolution of TR System is marked CE.

USES

DACOTERM EVOLUTION offers a high degree of thermal insulation and, thanks to its ergothermal polyvalence, can be used to replace any other thermo-insulating materials. This product can be used to create permeable, heat-insulating, render coatings for the insulation of buildings or any other type of thermal insulation, also when applied in fine thicknesses.

ADVANTAGES

Ergothermic: DACOTERM EVOLUTION provides a very high degree of pluri-directional, ergothermal insulation also at low thicknesses as a result of the characteristics of the components used in its particular formula, the use of amorphous silica and thanks also to the method of production.

Low thicknesses: On account of its ergothermal quality, this product allows the user to obtain a high degree of insulation with a thickness of only 2 cm minimum.

Permeability: Thanks to the characteristics of the materials with which this product is produced and its aerated structure, Dacoterm Evolution thermal render offers a very high degree of permeability, which facilitates the migration of water vapour towards the outer surfaces, thereby eliminating condensation and humidity (and mould), which can greatly reduce the insulating power of low-conductivity materials. Masonry and building structures thus stay dry at all times and thermal insulation remains at a constant very high level.

Qualitative protection: Outdoor application of Dacoterm Evolution thermal render as an insulating agent decreases the risk of excessive ranges of temperature variation in the winter and summer periods. The phenomenon of structural expansion, an adjunctive cause of fracturing and cracking, is thus limited and long-lasting, effective protection is guaranteed.

Thermal shield: The insulation system created by the use of DACOTERM EVOLUTION render allows for the elimination of 'thermal bridges' or points of 'structural interruption' in a building, such as floors which come into contact with outer walls or points where two external walls join. From experience, it is possible to state that such areas and structural points feature high rates of thermal dispersion, and in an internally isolated building, can reach approximately 20% of total dispersion. Elimination of 'thermal transfer bridges' eliminates the formation of condensation in the corners of rooms, on ceilings and in walls, the areas with the highest levels of conductivity and the lowest surface temperatures. This is possible because by isolating these areas on the outside, the internal temperature will never fall below dew point, which ensures a high level of environmental comfort for persons inside the building.

Water repellent: DACOTERM EVOLUTION is a water-repellent product. This characteristic makes it last longer and enhances the degree of protection provided.

Fiber-reinforced: DACOTERM EVOLUTION is fiber-reinforced. This limits the formation micro-fissures and cracks caused by plastic shrinkage.

Mechanical resistance: DACOTERM EVOLUTION render provides a high level of mechanical resistance to compressive strength and impact and can be easily restored just like any normal plaster. As it resembles common renders, DACOTERM EVOLUTION easily allows for recasting in future structural work or building maintenance and adheres homogeneously to the previously applied layers.

TECHNICAL DATA (Ref. EN 998-1)

Dried cured mortar bulk density	400 kg/m ³	EN 1015-10
Reaction to fire	Class A1	EN 13501
Water absorption	W 1	EN 1015-18
Water vapor permeability	$\mu \leq 6$	EN 1015-19
Thermal conductivity (design)	$\lambda d = 0,052 \text{ W/mK}$	EN 1745
Compressive resistance	CS II	EN 1015-11

INSTRUCTIONS FOR USE

Preparation of the support:

On new brickworks, carefully wet removing thus possible deposits. On concrete masonries or elements, on old masonries, carefully wet and apply the rendering coat DACOTERM RINZAFFO F. In case of damp and salty masonries, apply the anti-salt rendering coat DACOTERM RINZAFFO ANTISALE.

Directions for use:

DACOTERM EVOLUTION is a pre-mixed product which must be mixed using only fresh clean water at the rate of 12-14 litres per 15 kg sack of the product. Pour the water into the concrete mixer and then the product, mixing for at least 4-5 minutes. Empty the concrete mixer and apply the mixed product within 35-40 minutes. As it is a pre-mixed product, it can be applied using a plaster sprayer provided with a vertical mixer, stator and worm or plaster sprayer with pre-mixer and rotary peristaltic pump. According to the thickness which must be realized, the mixed product must be put on in consecutive coats with an interval of 24 hours between each other and in any case after the complete set and in maximum thicknesses of 2-2.5 cm per coat.

Finishing:

On the raw render DACOTERM EVOLUTION, cured and naturally dried, apply 2 coats of DACOTERM FINITURA (Dacoterm Finishing, a special fine mortar made of natural lime).

YIELD

3,5 - 4 kg of product / cm of thickness / sq. metre

COLOR

Grey

PACKING

15 Kg bags. Pallet 600 Kg.

PRECAUTION

The product must not be applied at temperatures lower than 5°C. On cold days, work during daylight and do not apply in the later afternoon, or when the temperature is expected to fall below 5°C within the following 24 h. On warm and/or windy areas, the render must be kept humid, at least for the first 24 hours.

STORAGE

DACOTERM EVOLUTION can be stored in the original sealed packs and in a dry environment for at least 12 months.

ABSTRACT

Thermal insulation of buildings with natural, ergothermal mineral render.

Technical specification

Supply and application of a premixed, ergothermal, heat-insulation, natural, mineral fiber-reinforced, water-repellent render type Dacoterm Evolution composed of lava foams, amorphous silica and hydraulic binders. Main technical characteristics of the render are as follows: $\lambda d = 0,052 \text{ W/mK EN 1745}$, $\mu \leq 6 \text{ EN 1015-19}$, compressive resistance CS II (EN 998-1).

Applied manually or with a plastering machine for a yield of 3,5 - 4 kg/m² per cm thickness.

