TECHNICAL DATA SHEET

ULTRACOLL THERMO

Fiber reinforced adhesive for insulation boards on walls and roofs

QUALITY CONTROLLED CE EN 998-1

ACCORDING TO EUROPEAN STANDARD EN 998-1 GP CSIV/Wc2 DURO STICK

EPD®

■ PROPERTIES

Fiber reinforced cementitious adhesive, fortified with resins that provide excellent flexibility and resistanse to moisture. Presents exceptional bonding power and high adhesion on thermal insulation boards made from expanded (EPS) or extruded polystyrene (XPS), polyurethane, cork etc., on walls made of concrete, plaster, bricks or cement blocks. The adhesive is part of the Certified Exterior Thermal Insulation Composite System for buildings THERMOSEAL of DUROSTICK and is in compliance with the requirements of EAD 040083-00-0404, ETA 13/0006, and ETA 13/0007.
Classified GP: CSIV/Wc2, per EN 998-1.
The product has received an Environmental Product Declaration (EPD) following an assessment of the environmental impact of its life cycle.
Registration number: S-P-13563,
The International EPD® System.

■ APPLICATIONS

A) For External Thermal Insulation Composite System for buildings is suitable for both bonding the insulation boards on the building facades, and as base coat, in combination with the reinforcing fiberglass mesh for building facades DS-4160 of DUROSTICK.

B) ULTRACOLL THERMO is recomme-nded for **COOLROOF and COOLROOF LIGHT, the Flat Roof Thermal Insulation and Waterproofing Systems of DUROSTICK**, thereby creating a tested thermal insulating and waterproofing system with extended life.

■ USE

1. Surface preparation

Application surfaces must be flat (even), clean, free from loose materials, dust, oils, paint, etc. Absorbent surfaces are soaked with water or primed with the micromolar stabilizer (primer) AQUAFIX of DUROSTICK.

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2. Application
Empty the adhesive in approximately 7.0-7.5lt of clean, cool water and mix with a low rpm electric mixer.
Allow for the mixture to mature for 5-10 minutes, and mix periodically without adding extra water.

A) For the External Thermal Insulation Composite System (ETICS) THERMOSEAL:
• **On flat surfaces:** Apply the adhesive onto the thermal insulating board, 'comb' the adhesive evenly over the entire surface with a notched trowel and install it on the wall.
• **On non-flat surfaces:** Apply the adhesive around the edges of the insulating board with a margin trowel and on spots (dots) to the rest of the surface. Place the board on the wall and apply pressure on its surface, to ensure safe and uniform contact between the adhesive and the substrate.
The installation requires leveling, in order to ensure the evenness of the adhered board surface.
At least 24 hours later, depending on the building size and height, apply the appropriate number of plastic fasteners (anchors).
• **Apply it as reinforcing top coat for insulating boards:** Using a notched trowel, apply across the entire surface, a thin coat (3-5mm) of the adhesive, and encase in it the reinforcing fiberglass mesh of DUROSTICK DS-4160. Using the trowel, and once the mesh installation is completed, smooth the surface. On complete cure, coat the surface with the waterproofing flexible plaster HYDROSTOP PLASTER ELASTIC, available in smooth or textured finish. Alternatively, use the silicone based, waterproofing topcoat plaster in paste form HYDROSTOP SILICONE PLASTER, also suitable for creating a smooth or textured finish.
For a detailed description of this application, review the DVD for the THERMOSEAL system of DUROSTICK or visit www.durostick.com.

B) For COOL ROOF, the thermal insulation and waterproofing system for roofs: For flat roofs and uneven substrates, apply a coat of the adhesive on the polystyrene board or directly on the roof slab and 'comb' it with a notched trowel. Install the insulation boards, covering the entire surface. Once dry, prime the surface of the insulation boards with the quartz based acrylic primer DS-255 of DUROSTICK. The primer application will provide optimal bonding conditions for the cement screed that will follow. Once the primer has dried thoroughly cover the boards with the cement screed D-6 of DUROSTICK or by using a mix of 3 parts sand, 1 part gravel, 1 part cement and the 12mm polypropylene fibers DUROFIBRE of DUROSTICK (about 900gr/m^3), to a thickness between 2-4cm, providing a solid and durable substrate. Ten days later, coat the cement screed with DUROSTICK HYDROSTOP ROOF or TWO COMPONENT HYDROSTOP, in three crosswise layers (1mm/coat thickness) using an emulsion brush (broad brush) or roller for rough textures.
For terraces that are under particular loads and stresses or they are larger than 50m^2, it is necessary to apply and encase the alkali-resistant fiberglass mesh, DS-490 of DUROSTICK (with 4x4mm mesh opening, 90gr/m^2) or DUROSTICK DS-4160 (160gr/m^2).
During the application of the first coat of the waterproofer, encase the fiberglass mesh, and **necessarily follow with two more coats**.
This way, proper waterproofing is ensured for many years, in addition to excellent thermal insulation.
For a detailed description of this application review the DVD for the COOLROOF of DUROSTICK or visit www.durostick.com.

■ CLEANING
Clean tools and equipment with water, immediately after use.

■ CONSUMPTION
As adhesive: 2.5-4kg/m^2, depending on the notch size and the substrate.
As mesh coating layer: 1.5kg/m^2/mm to cover the fiberglass mesh.

■ STORAGE
Store in the factory sealed packages, in dry and shaded places, for 12 months from production date.

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SAFETY DIRECTIONS

The product contains Portland cement. Before use, read the safety instructions on the product packaging or the Safety Data Sheet.

PACKAGING

Paper bag of 25kg on 1,500kg pallet.

TECHNICAL SPECIFICATIONS (Measurement conditions 20°C and 65% R.H.)	
Form - Color	Cementitious mortar - White
Bulk density of dry mortar	1.40±0.05kg/lt
Bulk density of fresh mortar	2.00±0.05kg/lt
Maximum grain size	600μm
Slip per EN 1308	< 0.5mm
Water requirement	7.0lt water in 25kg mortar
Application temperature	From +5°C to +35°C
Temperature resistance	From -35°C to +80°C
Pot life	Approximately 7 hours
Open time per EN 1346	30 minutes
Time for minor adjustments	35 minutes

PRODUCT PERFORMANCES	
Strength after 28 days, per EN 1015-11, to:	
• flexion	8.50±0.50 N/mm²
• compression	15.00±1.50 N/mm²
Adhesive strength after 28 days:	
• On concrete, per EN 1015-12	≥ 2.00 N/mm²
• On expanded polystyrene (EPS), per EAD 040083-00-0404	> 0.14 N/mm² (exceeds the standard by 100%)
• On extruded polystyrene (XPS), per EAD 040083-00-0404	> 0.27 N/mm² (exceeds the standard by 150%)
Capillary water absorption (c), per EN 1015-18	≤ 0.10kg/m²·min$^{0.5}$
Water vapor diffusion coefficient per EN 1015-19	μ 15/35
Thermal conductivity $\lambda_{10,\,dry}$ per EN 1745 (Table A. 12)	0,45 W/m·K (tab. value)
Reaction to fire	Class A1

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