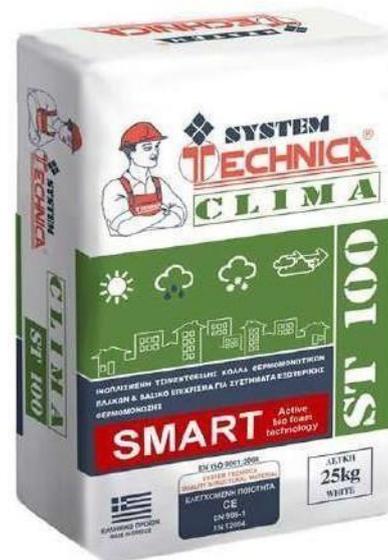




EN ISO 9001: 2008
TECHNICAL DATA SHEET

ST-100 SMART
CEMENT BASED ADHESIVE FOR
THERMAL INSULATION
BOARDS & BASIC COATING
FOR EXTERNAL THERMAL
INSULATION SYSTEMS

CLASSIFICATION: C2TE – GP:CSIV/W2
according to EN 998-1, EN 12004



Description

Reinforced cementitious resin adhesive for thermal insulation boards and high-performance basic coating. With new advanced composition thanks to the innovative (**ACTIVE BIO FOAM TECHNOLOGY**) developed in our laboratories and applied with absolute success to the award-winning **HYBRID POWER FLEX** tile adhesive at the **BUILDING MATERIALS AWARDS 2020**. Produced under standard modern industrial conditions with quarry aggregate of special granulometry of high clarity. It contains special polymer resinous mixed additives of highest quality and technology of the most approved European manufacturers, which offer accordingly many advantages such as: Powerful initial and final bonding, great flexibility and strength against deformations and vibrations. Great resistance against moisture and temperature fluctuations (heat – frost). Great workability and easy to apply. Classified as C2TE cementitious adhesive with reinforced characteristics, zero slip, (T) and extended open application time (E).

Performance

Due to the special innovative composition with **ACTIVE BIO FOAM** that offers a soft creamy and fluffy texture in the mixture, significantly increases the performance and quality during application compared to traditional materials. The craftsman works with exceptional ease to use in both phases, bonding of insulation and base coat, achieving better bonding since the mixture spreads exceptional easy on the back of the insulator during application.

Also, during its application as a basic coating, due to its soft and foamy texture, the craftsman boxes with great ease the reinforced fiber glass in the fresh mixture, without gaps, creating a uniform and strong background for the final coating that will follow.

Use

Exceptional ease to use in all application conditions, due to the special innovative composition with active bio-foam, which offers a soft, creamy and fluffy texture to the mixture. It is used for the bonding of thermal insulation boards, expanded or extruded polystyrene and stone wool on the external surfaces of buildings, in various substrates, such as concrete, brick, plaster, cement board, aerated concrete, etc. in application thickness up to 20mm. It is then applied as a base coating with reinforcement of fiber glass on the outside of the thermal insulation boards, being an ideal substrate for the final coating that will follow, in the form of paste or dry mortar.

Application

As a bonding adhesive for thermal insulation boards.

The application surface must be free of dust, grease, oil etc and capable of carrying the additional weight. The content of the bag should be mixed with 6,0lt — 6,5 lit of clean water by the use of a suitable mixer at low speed in order to obtain a homogeneous mixture which is then allowed to settle for 5-7 minutes. Then mixture is stirred again without additional water and is ready for use either manually or by using a spray machine. On flat substrates the adhesive is evenly spread with a notched trowel across the surface of the board, while on uneven substrates the mixture is spread around and on the central point so that it can cover a total of 40% of the plate surface.

Note that the application can take place between temperatures of +5° C and +35 ° C. The workability time varies, depending on climate conditions, from 1 to 3 hours.

As a basic reinforced coating.

Is applied on the external surface of the insulation panels either manually or by the use of a spray machine and is spread out evenly with a notched trowel of 1-1,2mm. Accordingly within the damp substrate the reinforced fiberglass material is encased and the surface is levelled with spatula so that the fibreglass is completely covered. The recommended thickness of the final surface is 4-5 mm.

Consumption

As an **adhesive**, 3-4 Kg/m² depending on the surface.

As a **reinforced mortar**, ≈ 1.3 Kg/m²/1mm.

Storage

Keep in a room with low humidity and store on pallets up to one year from the date of production and always in sealed package.

Packaging

Available in bags of 25kg.

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TECHNICAL DATA ST 100 SMART	
Form	Dry Powder
Color	White
Mixture composition	Very Thick
Water requirement	6,2 lt per 25kg (± 0.25 lt)
Maturing time	5-7 min
Specific weight	1,43 kg/lit
Mixture density	1,55 Kg/ lit
Application temperature	5°C - 35 °C
Application thickness	20 mm
Pot Life	1 – 3 hours
Open Application Time	\approx 35 min
Minor adjustments open time	\approx 25 min
Slip	\leq 0,5 mm
Temperature resistance	from -30°C to +95°C
Tensile adhesion strength after 28 days according to (EN 1348)	1,32 N/ mm ²
Tensile adhesion strength after heat ageing at 70°C. according to (EN 1348)	1,09 N/ mm ²
Tensile adhesion strength after water immersion 14 days according to (EN 1348)	1,07 N/ mm ²
Tensile adhesion strength after 25 freeze thaw cycles according to (EN 1348)	1,02 N/ mm ²
Compressive strength	12,85 N/ mm ²
Flexural strength	5,43 N/ mm ²
Adhesion on XPS (28 days)	0,15 N/ mm
Adhesion on EPS (28 days)	0,10 N/ mm ²
Flammable material	No



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EN 12004 : 2007

ST-100 SMART

**DoP No.: SYSTEM TECHNICA ST-100 SMART/ 2000 -
04**

Cement based adhesive for thermal insulation boards & basic
coating for external thermal insulation systems

Classification: C2TE

Reaction to fire:	Class A1
Adhesion, as:	
Initial tensile adhesion strength	$\geq 1,0 \text{ N/ mm}^2$
Bond Strength as:	
Tensile adhesion strength after heat ageing	$\geq 1,0 \text{ N/ mm}^2$
Tensile adhesion strength after water immersion	$\geq 1,0 \text{ N/ mm}^2$
Tensile adhesion strength after freeze thaw cycles	$\geq 1,0 \text{ N/ mm}^2$
Release of dangerous substances:	See MSDS

The company guarantees the performance of the product as written in the technical data sheet - CE. These are the results of the company's long-standing experience and knowledge in the production and application of the product in practice (laboratory tests and projects autopsy). The company cannot guarantee the final result as it is impossible to monitor and oversee all possible product applications. Therefore, it is the user's sole responsibility to ensure that the product is suitable for the requirements of its project, to consult the instructions for use on the packaging and to use it in the right way and in the right conditions to have the ideal final result. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. Karditsa April 2021.