HYGROSMART® –ADHESIVE TH-70

High Performance, Fiber Reinforced, Cement Based Adhesive for Thermal Insulation Boards with No Vertical Slip

DESCRIPTION

HYGROSMART®-ADHESIVE TH-70 is a high quality, fiber reinforced, cement based adhesive suitable for adhesion of thermal insulation boards. The material is easily applied and displays excellent technical characteristics, adhesive properties and no vertical slip.

COMPLIANCE-CERTIFICATION

The product is **CE** certified as factory made rendering/plastering mortar based on inorganic binders for external and internal use on walls, ceilings, columns and partitions according to **EN 998-1:2016**, as cementitious tile adhesive **C2TE** with zero slip according to **EN 12004:2007 +A1:2012** and as adhesive for installation of thermal insulation boards from extruded polystyrene (XPS), expanded polystyrene (EPS), mineral wood/rock wool (MW/RW) and polyurethane (PU) on building external facades and on concrete or plaster/render substrates according to **EN 13499:2003** and **ETAG 004.**

RECOMMENDED FOR

Most suitable adhesive for installation of thermal insulation boards from extruded polystyrene (XPS), expanded polystyrene (EPS), mineral wool/rock wool (MW/RW) and polyurethane (PU) on building external facades and on concrete or plaster/render substrates.

It is also used for over coating of thermal insulation boards by using special glassfiber mesh.

FEATURES AND BENEFITS

- High initial and final adhesion
- Resistance to moisture
- No vertical slip

APPLICATION PROCEDURE

Substrate Preparation:

Remove oil, grease and wax contaminants, cement laitance, loose particles. Fill surface irregularities with the necessary product.

Homogenize the mixture of tile adhesive with water for at least 3 min until no lumps are visible. If the substrate is very dry, it is recommended that it is dampened before installation. Apply the adhesive and fix the thermal insulation boards applying moderate pressure.

Mixing-Application:

HYGROSMART®-ADHESIVE TH-70 (25Kg) is added gradually under mechanical mixing to 6-6.5 Kg water.

The adhesive is applied on thermal insulation boards and "combed" with notched trowel for uniform spreading all over the surface.

The temperature during application should be between +5°C and +35°C.

CONSUMPTION

3-5 Kg/m^2.

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CLEANING

Brushes and tools can be cleaned with water. Dried product cannot be cleaned with water and can be removed only by mechanical means.

PACKAGING

25Kg paper bags. **Color:** White

STORAGE

The product can be kept for minimum 12 months in the original unopened packaging. Should be stored in dry conditions and at temperatures of 5-25°C. Once opened, use as soon as possible.

SAFETY

HYGROSMART®-ADHESIVE TH-70 contains cement and is therefore irritating. Please use protective equipment and clothing during application.

TECHNICAL SPECIFICATIONS

CE 2085	
ALCHIMICA S.A. Lampsakou 7, Athens - GREECE	
18 PTD-008/15112018	
EN 12004:2007+A1:2012 **HYGROSMART ADHESIVE TH-70** Cementitious adhesive for ceramic tiles for external and internal use	
PROPERTY	**PERFORMANCE**
High initial tensile adhesion strength	≥1.0 N/mm^2
High tensile adhesion strength after water immersion	≥1.0 N/mm^2
High tensile adhesion strength after heat ageing	≥1.0 N/mm^2
High tensile adhesion strength after freeze-thaw cycles	≥1.0 N/mm^2
Open time (extended): tensile adhesion strength after not less than 30 min	≥0.5 N/mm^2
Slip	≤0.5 mm
Reaction to fire	Euroclass A1
Dangerous substances	In accordance with 4.5

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CE 2085	
ALCHIMICA S.A. Lampsakou 7, Athens - GREECE	
18 4P-0184/08102018	
EN 998-1:2016 System 4-Testing laboratory Directorate at Eurotest Control EAD (2085) **HYGROSMART ADHESIVE TH-70** Factory made rendering/plastering mortar based on inorganic binders for external and internal use on walls, ceilings, columns and partitions	
PROPERTY	**RESULT**
Dry bulk density of hardened mortar	1460 kg/m^3
Compressive strength	11.7 N/mm^2 for category CS IV
Adhesive strength	1.5 N/mm^2 fracture pattern type b
Capillary water absorption coefficient	0.19 for category Wc 2
Reaction to fire	Euroclass A1
Dangerous substances	In accordance with 5.3.4

CE 2085	
ALCHIMICA S.A. Lampsakou 7, Athens - GREECE	
18 4P-0187/08102018	
EN 13499:2003 and ETAG 004 System 4-Testing laboratory Directorate at Eurotest Control EAD (2085) **HYGROSMART ADHESIVE TH-70** Adhesive for installation of thermal insulation boards from extruded polystyrene (XPS), expanded polystyrene (EPS), mineral wool/rock wool (MW/RW) and polyurethane (PU) on building external facades and on concrete or plaster/render substrates	
PROPERTY	**RESULT**
Bond strength between adhesive and concrete substrate at standard conditions	1.24 N/mm^2
Bond strength between adhesive and concrete substrate after immersion in water for 2 days and 2 hours drying at standard conditions	1.18 N/mm^2
Bond strength between adhesive and concrete substrate after immersion in water for 2 days and 7 days drying at standard conditions	1.56 N/mm^2
Bond strength between adhesive and EPS/XPS substrate at standard conditions: -EPS	0.12

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-XPS	0.14
Bond strength between adhesive and EPS/XPS substrate after immersion in water for 2 days and 2 hours at standard conditions: -EPS -XPS	 0.09 0.12
Bond strength between adhesive and EPS/XPS substrate after immersion in water for 2 days and 7 days at standard conditions: -EPS -XPS	 0.13 0.14
Reaction to fire	Euroclass A1
Dangerous substances	Does not contain

PROPERTY	UNIT	RESULT
Water requirement	%	25% by weight
Density of dry mix	Kg/l	1.45
Pot life in the pail	h	≥4
Open time	min	30
Adhesion on concrete	N/mm^2	>1.00
Slip	mm	0

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