



### Smoothing Adhesive

## ADE RAS

**ADE RAS** is a biocompatible, smoothing adhesive compound, pre-packaged powder for interior and exterior use according to standard UNI EN 998-1. **ADE RAS** is totally free of cement and compounds belonging to the clinker group. It consists of a mixture of pure silicate calcareous sands, screened with continuous grain size arc from 0 to 0.6 mm. The only binder present is SAINT-ASTIER Pure Natural Hydraulic Lime **NHL 5** according to standard UNI EN 459-1. The lime **NHL 5**, white, is produced by baking siliceous limestones at temperatures below 1250°C and reduced in powder by calcium oxide only, without the addition of pozzolanic materials or hydraulic binders of any kind. Natural additives give the product excellent applicability, smoothability and adhesion to the substrate.



## FEATURES

**ADE RAS** is a biocompatible adhesive smoothing compound, pre-packaged powder free of salts, chemicals products and volatile organic compounds VOCs. These features, combined with the total mineral nature of the components, guarantee the purity, non-toxicity, non-harmfulness and total recyclability of the product in full respect for man and the environment. The use of **ADE RAS** allows you to make smoothing coats eco-friendly and reversible, providing high breathability to the substrate on which it is applied, avoiding the formation of dangerous condensation and bacterial proliferation by regulating the ambient humidity and carbon dioxide content of the environments.

## FIELDS OF APPLICATION

**ADE RAS** is specific as adhesive and smoothing compound in exterior insulation systems with natural and synthetic panels. It can also be used for the formation of civil plaster finishings or spot faced, simple or reinforced with fiberglass mesh **TCS GLASS CK 155** in the newly constructed and restoring existing structure sector. It can be applied on vertical and horizontal surfaces consisting of solid bricks, hollow blocks, lightweight hollow blocks, mixed brick, stones and tuff. For all those compact or poorly absorbent surfaces (solid blocks or concrete cables and expanded clay pebbles, concrete block cells, lime or cement bases, reinforced concrete structures, magnesium wood). It can be used as an adhesive/smoothing product for ventilation and decoupling systems.

## APPLICATION

The laying of the adhesive smoothing compound **ADE RAS** must be preceded by a substrate preparation. If it is dry, the substrate should be suitably wet. The surfaces must be clean and free from dusty particles and efflorescence. In the case of broken stone or crumbling surfaces, they should proceed with their consolidation with **TC 35**.

**ADE RAS** can be applied manually or by a screw plastering machine (stator/rotor D6-3 PFT). It should be mixed only with about 6-6.5 l of water per bag depending on the desired consistency. The mixing can be done manually or mechanically. Leaving the mixture rest for 10 minutes will have a better applicability of the product.

**As an adhesive:** to apply **ADE RAS** uniformly with a toothed adhesive spreader on the entire surface of the insulating panel, then glue the same to the surface to be coated, taking care to beat it properly to ensure total and perfect adhesion to the panel support interface. Then mechanically fasten it with the special plugs.

**As a smoothing product:** to apply **ADE RAS** on insulating panels such as XPS, EPS, Glass Fiber, Rock Wool, Wood Fiber, Cork, Magnesite, Aerogel already laid and perfectly glued. Apply the product with a smooth or toothed metal adhesive spreader on hinges and cracks. In a multilayer system, lay down and down the reinforcement meshes **TCS GLASS CK 155** in the external two thirds of the levelling.

For the last finishing hand, if the layer of **ADE RAS** previously applied is already dry, you will proceed with adequate wetting of the support.

This operation will keep the new layer workable and will ensure perfect adhesion to the underlying layer. When the second layer is dry, the surfaces may be freshened up to obtain a compact effect or smoothed manually or mechanically with a sponge trowel to obtain the intonachino plaster finish effect.

## FINISHES

The use of a product of the **TCS Finishing Line** constitutes the natural completion of a compatible cycle with the substrate, particularly with regard to the characteristics of breathability and permeability. The use of the **TCS Finishing Line**, composed by lime putty of **Lime CL 90** or Potassium Silicate, is the obligation to fulfil the expectations of aesthetic and performance features at the basis of the TCS product choice.

In case you decide to leave the smoothing coat **ADE RAS** natural it is recommended to apply a waterproof protection type **TI 10** or **TI 10 PLUS** of the TCS Protection Line.

## TECHNICAL DATA

PRODUCT TYPE	
GRAIN SIZE CURVE (EN 1015-1)	<b>0 - 0.6 mm</b>
pH OF THE MIXTURE	<b>&gt; 12</b>
FRESH MORTAR APPARENT DENSITY (EN 1015-6)	<b>1600 kg/m<sup>3</sup></b>
DRIED MORTAR APPARENT DENSITY (EN 1015-10)	<b>1400 kg/m<sup>3</sup></b>
	<b>1750 kg/m<sup>3</sup></b>
	<b>99%</b>
	<b>98%</b>
	<b>60%</b>
PRODUCT TYPE	<b>Mortar for general purposes (GP) for indoor and outdoor use complying with the standard UNI EN 998-1</b>
FRESH MORTAR APPARENT DENSITY (EN 1015-6)	<b>average 1530 kg/m<sup>3</sup></b>
DRIED MORTAR APPARENT DENSITY (EN 1015-10)	<b>average 1380 kg/m<sup>3</sup></b>
APPARENT DENSITY IN PILE	<b>average 1240 kg/m<sup>3</sup></b>
COMPRESSIVE STRENGTH (EN 1015-11)	<b>category CS II</b>
FLEXURAL STRENGTH (EN 1015-11)	<b>1.30 N/mm<sup>2</sup></b>
ADHESION (EN 1015-12)	<b>&gt; 0.6 N/mm<sup>2</sup> FP-B</b>
WATER VAPOUR PERMEABILITY COEFFICIENT (EN 1015-19)	<b><math>\mu &lt; 10</math></b>
WATER ABSORPTION THROUGH CAPILLARITY (EN 1015-18)	<b>W0</b>
	<b>12 h - 20h</b>
THERMAL CONDUCTIVITY (EN 1745:2002 TABLE A 12)	<b>0.47 W/(mK) Tabulated</b>
FLAME RESISTANCE (EN 13501-1)	<b>class A1</b>
MIXING WATER	<b>6-6.5 l per bag</b>
CONSUMPTION	<b>1,4 Kg/m<sup>2</sup> per thickness of approximately 1 mm</b>
THICKNESS PER COAT	<b>1-3 cm for bonding approx. 1-1.5 cm for reinforced smoothing</b>
PACKAGING	<b>25 kg bag</b>
PALLET	<b>48 bags, 1200 kg</b>
STORAGE	<b>Keep in dry place for 18-24 months in original package</b>
APPLICATION TEMPERATURE	<b>da +5°C a +32°C</b>
REACH CLASSIFICATION	<b>See SDS</b>

## WARNINGS

- Product for professional use.
- Do not modify the product.
- Store the product in a dry place in the original sealed packages.
- Before using the product refer to the Safety Data Sheet.
- The data given correspond to the technical and application knowledge we have for proper use of the product, so it is recommended to carry out a practical test prior to in order to verify the suitability of the product for its intended use and consumption.
- Protect the surfaces from atmospheric phenomena, sun, wind, rain and frost.
- Since our company is not the executor of the works and can not intervene directly on the construction site conditions and on the methods of work execution, the indications given are to be considered as indicative and general, and therefore not binding for the same.
- The Company reserves the right to make the changes at any time without notice when it deems necessary.
- For more information and practical product demonstrations please consult our technical service.
- Always refer to the updated versions of the technical data sheets available at [www.tcs-srl.it](http://www.tcs-srl.it).