

# **IERARAS ONE**

Universal adhesive-smoothing compound professional for external thermal insulation systems. Shaving and smoothing of difficult or poorly absorbent surfaces.





## **TECHNICAL FEATURES**

**HERARAS ONE** is a fine-grained cementitious adhesive and skim coat in powder form, with high adhesive power, good flexibility and effective protection from carbonation for bonding and reinforced skimming of thermal insulation system panels. Its high adhesion characteristics also make it ideal as a smoothing product to even out multiple existing and / or poorly absorbent substrates.

**HERARAS ONE** was formulated according to the strict quality standards of the **HERAKEM** laboratory, with high-strength cements, mineral aggregates in selected granulometric curve, hydrophobic additives and synthetic resins, which give the product high mechanical characteristics, remarkable smoothness when spreading with the spatula and a valuable aesthetic effect of the "fine civil" type finish.

#### **FIELD OF APPLICATION**

HERARAS ONE is an adhesive / smoothing compound and is used for the construction of thermal insulation systems, and for the leveling smoothing of surfaces with difficult adhesion such as cast or prefabricated concrete, ceramic tiles or glass mosaics, mineral coatings, natural stone or marble, polystyrene or polyurethane, traditional micro-cracked cementitious plasters even if coated with quartz paints or varnishes, plastic scratched coatings, to smooth after restoring front panels, under balconies or facade elements, etc.

#### **PREPARATION OF THE SUBSTRATE**

The substrates must be cured, clean, stable, solid and compact, free of inconsistent parts, dry and adequately protected from capillary rising damp phenomena. Wash the surfaces with a pressure washer to remove waxes, greasy substances and water-repellent treatments; brush all the inconsistent parts and those in the detachment phase of the existing finishes, wash the surfaces to be treated with water, eliminating all dusty residues that can compromise correct adhesion and allow to dry before proceeding with the application of **HERARAS ONE**. Moisten absorbent substrates, such as lime-cement or cement-based plasters and wait for the surface water film to disappear. If the substrate continues to dust after washing, showing a superficial lack of cohesion, apply a coat of **HERALAX AC**. Before applying to painted walls, perform the following test to check the adhesion of the paint to the substrate: with the blade of a cutter, make a series of parallel cuts at a distance of a few millimeters from each other (approx.  $5 \div 10$  mm) and then cross with other cuts at 90 °. If the varnish or paint detaches, it is a sign of poor adhesion and therefore must be removed by hydro-washing or sandblasting.

#### **MIX PREPARATION**

Mix **HERARAS ONE** with approx.  $6.5 \div 7$  liters of clean water per 25 kg bag, slowly adding the powder to the water. Mix with a low-speed drill fitted with a mixing propeller until a homogeneous, lump-free mortar is obtained. Leave the mixture to rest for at least 5 minutes, stir briefly without adding more water and use within the next 3 hours.

### APPLICATION

#### Glue-smoothing agent for external thermal insulation system:

If the substrate is flat, apply **HERARAS ONE** over the entire surface of the slab using a wide—toothed trowel. If the substrate is not flat, but has diffuse irregularities, apply a bead of **HERARAS ONE** on the perimeter edge of the panel and at central points, while ensuring a minimum bonding surface equal to 40% of the size of the slab. Eliminate any leaks of the adhesive on the sides of the panel during the installation phase, in order to guarantee a correct combination of the insulating materials and to avoid the formation of thermal bridges. Any open joints between the sheets must be filled using only "slices" of the insulating material. The insulating panels have been positioned, after the **HERARAS ONE** has dried, proceed with the tessellation phase to improve adhesion and stability to the system support. After the mechanical fixing and edge preparation phase, proceed with the reinforced leveling of the insulating system by applying **HERARAS ONE**. Apply the product completely covering the slabs using a toothed metal trowel (8 mm tooth). Immediately cover the applied product with a special alkali—resistant fiberglass reinforcement mesh with a 4x4 mm primed and certified mesh, taking care to overlap the strips of at least 10 cm. Using the smooth side of the trowel, make the mesh adhere to the smoothing compound; the thickness achieved must be approximately 3 mm. After about 24 hours, once it has hardened, apply a second coat of smoothing compound to "drown" the mesh inside the smoothing layer and even out the entire surface. The final thickness of the smoothing must be 5 mm in total. Once the product has matured (about 3 weeks), it is possible to finish: we recommend the use of trowel—based acrylic or acryl—siloxane coatings.

#### Smoothing compound on difficult surfaces:

Spread the mortar on the prepared surface with a smooth metal trowel (American) in a maximum thickness of 3 mm per coat. Higher thicknesses, but in any case not exceeding 6 mm, must be done in two coats. To restore cracked facades or if the surface to be treated is poorly homogeneous, apply two skim coats with interposed alkali–resistant glass fiber reinforcement mesh, with a grammage of 150 g / m<sup>2</sup> and a mesh of 4x5 mm. Apply the product to completely cover the surface, making a constant thickness never less than 3 mm. Drown the reinforcement mesh in the skim coat, from top to bottom, taking care to overlap the strips of at least 10 cm. Once hardened, apply a second coat of smoothing compound to even out the entire surface. **HERARAS ONE** can be finished, even with traditional wooden or damp sponge floats. Painting must be carried out after the complete drying of the applied product.

#### **ITEM OF SPECIFICATIONS**

Bonding and smoothing of insulating panels by applying one-component cement-based adhesive mortar modified with synthetic polymers to increase adhesion and elasticity, such as **HERARAS ONE** of **HERAKEM SRL**, classified **GP-CSIV-W2**, according to the **UNI-EN 998-1** standard. For application as an adhesive on the back of the panels, a notched trowel will be used on the entire surface, or on the entire perimeter and central points with a trowel. As a smoothing compound, apply on the panels in two coats, incorporating an alkali–resistant fiberglass reinforcement mesh in the thickness.

Smoothing and smoothing of slightly irregular surfaces indoors or outdoors, even if non-absorbent or coated with synthetic paints or finishes, with a smoothing compound based on hydraulic binders modified with synthetic resins, such as **HERARAS ONE** by **HERAKEM**, (classified **GP-CSIV-W2**, according to **UNI-EN 998-1**). Smoothing of ceramic or glass mosaic coverings to allow subsequent decoration.

#### WARNINGS

- Operating temperature + 5 ° C ÷ + 35 ° C.
- Do not apply in the presence of strong wind, rain, frozen and / or thawing surfaces.
- Protect the parts not to get dirty.
- It cannot be used on gypsum substrates or on inconsistent, degraded or crumbling coatings
- Do not use on substrates treated with siloxane water-repellent protective agents or on greasy substrates, treated with vegetable waxes or release agents
- Do not apply products containing solvents.
- Check the perfect adhesion of the coatings on which you intend to apply HERARAS ONE. If in doubt, remove them.
- In the case of non-homogeneous substrates or in the presence of points of discontinuity (for example beams, pillars, insulating panels in contact with brick infill) it is advisable to insert a fiberglass mesh between 1st and 2nd coat.

 To prevent rapid drying and subsequent hygrometric shrinkage from causing anomalous cracks, protect the constructions from the beating sun; in periods characterized by high temperatures, windy and sunny days, it is also recommended to spray water on the treated surface.

HFRAKEM

- Do not use HERARAS ONE for uses in thicknesses> 6 mm.
- Do not add cement or other substances to the mix.
- The tools used for installation must be cleaned with water before the product hardens; subsequently, cleaning can only take place by mechanical removal.

TECHNICAL DATA *(at +22±1°C and 55±5% R.H.)			
Appearance	powder	Flexural strength	> 4,0 N/mm <sup>2</sup>
Color	gray or white	Water absorption by capillarity	W2 c≤ 0,2 Kg/m <sup>2</sup> · Min <sup>0,5</sup>
Maximum diameter of the aggregate	< 1 mm	Thermal conductivity	0,47 W/mK (average value from prospectus; P=50%)
Mixing water	26-28%	Reaction to fire	Class A1
Workability time	≥ 120 minutes	Yield for full-surface bonding	approx. 4-6 Kg/m <sup>2</sup>
Density of the hardened mortar	approx. 1350 kg/m <sup>3</sup>	Yield for gluing along the perimeter and center points	approx. 3-4 Kg/m <sup>2</sup>
Adhesion to concrete	≥ 1,5 N/mm²	Storage	12 months in original dry packaging
Compressive strength	> 13 N/mm <sup>2</sup>		
Consumption	1.3 kg/m <sup>2</sup> per mm of applied thickness	Packaging	25 kg bag

#### PRODUCT FOR PROFESSIONAL USE ONLY

All the data and indications given in this technical data sheet, although resulting from laboratory tests carried out and from our direct application experiences, due to the infinite number of variables linked to the construction site conditions, are to be considered, in any case, purely indicative. Therefore, before applying the product, the user is required to establish whether it is suitable for the use envisaged by him, in the specific hygrothermal and application conditions foreseen at the time of use and, in any case, he assumes all responsibility for it. We are not liable for damage to people or things deriving from improper use of the product. We reserve the right to modify the data contained therein as a result of improvements and technical progress.