



# Technical data sheet



## AFON TERMO® IL NANOCAPPOTTO®

Extra-thin anti-condensation Thermo-reflective  
insulating coating with Photo-catalytic properties



**INDOOR - OUTDOOR**

Rev. 21\_09\_23

### General description

**AFONTERMO® IL NANOCAPPOTTO®** is the first finish for masonry that functions as an extra-thin anti-condensation reflective insulating coat, result of scientific research aimed towards quality of insulation and therefore having as objective not only to maximise energy saving but also to improve the salubrity of buildings.

Thanks to its heat reflecting and high insulating properties it prevents the dispersion of heat through the masonry during the winter and, if applied outdoors, will reflect and reject the heat of the summer sunshine. This means that in winter the heat produced by the household stays inside, while in summer the external heat is rejected, preventing the heat from entering inside. **AFONTERMO®**, if applied on the building surfaces (such as walls, ceilings, steel and/or reinforced concrete pillars), substitutes completely the traditional insulating coat and eliminates thermal bridges preventing condensation and Mold, meanwhile the great breathability of the product permits the natural flow of vapor throughout the walls. In this way **AFONTERMO®** preserves its thermo-hygroscopicity and makes living environments healthy.

The product also has photocatalytic properties, this helps to maintain the colour of the external facades over time and contributes to destroy harmful pollutants such as PM10 making them harmless.

**AFONTERMO®** is a white doughy mass, ready for use. Available in various finishing grain sizes, it is applied in two or more coats for an average finished thickness of 4 to 12 mm for outdoor applications and 4/5 mm for indoor applications.

Once all layers of **AFONTERMO®** are applied and the wall is completely dry it can be painted only and exclusively using **AFON CASA THERMOPHOTOCATALYTIC PAINT**, which can be tinted exclusively in light colours using mineral oxides.

### Guarantee

In addition to the legal guarantee, the product is covered by a product liability policy with a leading Italian insurance company.

### Fields of use

**AFONTERMO® IL NANOCAPPOTTO®** is used as insulation for walls or surfaces of existing or new constructions. Thanks to its elasticity and adherence to any surface (masonry, steel, reinforced concrete, wood, glass, PVC pipes, steel pipes, etc.) it achieves long lasting and high resistance to all atmospheric agents.

### Preparation of the surface

Before applying **AFONTERMO®**, particular attention must be paid to the paint previously applied to the surfaces. If previously painted with quartz, washable, non-breathable or siloxane paint, or in the case the painted covering crumbles, the old layer of paint should be removed, the surfaces must be cleaned with a high-pressure cleaner and covered with a layer of **FISSATIVO AFON CASA**. Then, once the surface is completely dry you can proceed with the application of **AFONTERMO®**.

**FISSATIVO AFON CASA** should be applied in any case on internal or external Walls and on gypsum plaster or false wall plasterboards. In the case of new constructions with a finishing veil applied on the masonry, it's important to wait for all surfaces to dry and only after applying **FISSATIVO AFON CASA** proceed with the application of **AFONTERMO® IL NANOCAPPOTTO**.

Generally, before the application of **AFONTERMO®**, all surfaces must be completely dry and free of any sign of permanent or rising humidity. If this is the case, our dehumidifying product **NOVOMUR** can be used to recondition the humid wall.



# Technical data sheet

## Application procedures:

### INDOOR USE

- Mix the product directly in it's pail using an electric whisk. The product must be mixed until it becomes homogeneous creamy and soft. If the product is excessively compact or dry add a cup of water before mixing.
- Apply **FISSATIVO AFON CASA**.
- Apply **AFONTERMO®** evenly using a **smooth-edged steel trowel**. For a correct application follow these procedures: Apply **AFONTERMO® type A**. Once completely dry, after at least 48 hours, proceed by applying **AFONTERMO® type B** available in the following finishes:
  - **AFONTERMO® type B – smooth finish**. Before application add a flask of **INDURITORE AFON CASA** (hardner) then proceed mixing the product directly in the pail with an electric whisk. Before eventually proceeding with the painting of the wall wait for the surface to dry completely (at least 48 hours).
  - **AFONTERMO® type B 0,25-0,5 – Civil finish**. The particle size is similar to fine sand. If necessary proceed with painting only after complete drying (at least 48 hours).
  - **AFONTERMO® type B 0,5-1 mm. – Civil finish**. The particle size is similar to the traditional plaster. If necessary proceed with painting only after complete drying (at least 48 hours).

**Caution:** In autumn, winter or in any case of high humidity levels, the product may take up to 6 days to dry completely. Before applying new layers of **AFONTERMO®** it is always necessary to make sure the previous layers are completely dry.

### OUTDOOR USE - Application using a smooth-edged steel trowel.

- Apply **FISSATIVO AFON CASA**.
- After adding a flask of **CATALIZZATORE AFON CASA** (catalyzer) for each pail of **AFONTERMO® Type A 1-2 CORAZZATO** (Armoured Afontermo for external use) mix the product until it becomes homogeneous creamy and soft.
- Proceed by applying evenly a first layer of the product to the surface using a smooth-edged steel trowel.
- Once the first layer is completely dry, after at least 48 hours, proceed by applying a second hand of the same type of **AFONTERMO®**.
- Once the second layer is completely dry, after at least 48 hours, proceed by applying a layer of **AFONTERMO® Type B CORAZZATO**.
- Painting must be done using exclusively our **PITTURA THERMOFOTOCATALITICA AFON CASA**.

For applications over 6 mm, refer to our specification items.

### OUTDOOR USE - Application using a notched trowel.

For 8mm applications with mesh interposition, the notched trowel can be used as follows:

1st layer of Type A "1-2" with a 6mm notched trowel; 2nd layer of Type A "1-2" with a smooth edged trowel inserting AFONRETE Fiber glass mesh; 3rd coat Type B "0.5-1" with a smooth edged trowel.

For applications over 8 mm with mesh interposition, refer to our specification items.

Do not apply **AFONTERMO® CORAZZATO** during adverse weather conditions like rain or hail.



Watch the video on  
YouTube

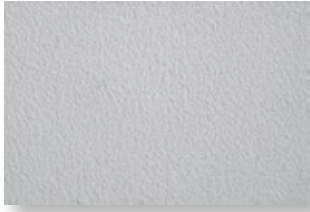


# Technical data sheet

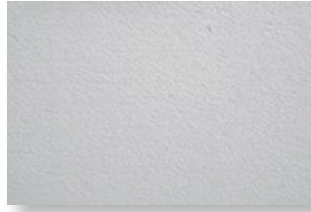


## AFONTERMO® type B\* Finishes

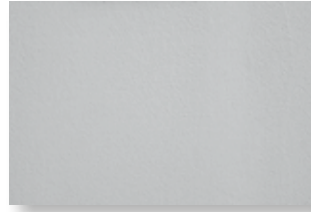
Type A/B sp. 1-2 mm



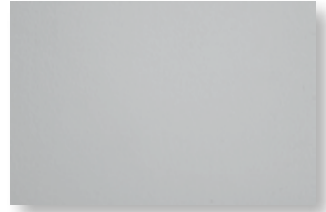
Type B sp. 0,5-1 mm



Type B sp. 0,25-0,5 mm



Type B smooth finish



\*The only purpose of the images is to illustrate approximately the looks of the finished product. Colors are not faithful to reality.

## Warnings

- If the product is dense and excessively compact or dry add a cup of water before mixing.
- Apply only on well-cohesive, resistant, compact and stable surfaces; otherwise restore the underlying plaster and, only after drying, proceed with the application of **AFONTERMO®**;
- If applying on new plaster at least 28 days must pass to ensure perfect drying of the substrate before applying **AFONTERMO®**;
- On substrates that have a tendency to chalk, crumble or that are particularly absorbent, first apply the **FISSATIVO AD ACQUA NON FILMANTE** (non-filming Afon Casa water fixative), then, once completely dry, proceed by applying **AFONTERMO®**;
- Before Applying **AFONTERMO®** remove any traces of Mold.
- Avoid applying the product with temperature below 5 ° C;
- Never add binders or inert substances to the material to avoid compromising the characteristics of the material;
- Do not cover **AFONTERMO®** using ceramic tiles and / or coatings in general;
- In presence of new plaster, always apply our **FISSATIVO** (fixative) before the application of **AFONTERMO®**;
- **Attention:** in fall or winter and more generally in presence of high humidity, the product takes from 2 to 6 days to dry, so be sure the surfaces are completely dry before applying new layers of **AFONTERMO®**;
- Do not apply **AFONTERMO®** during adverse weather conditions like rain or hail.
- On out door applications the product could show small cracks. In this case, the surface will then be evened out by the finishing layer of **AFONTERMO®** or after the application of our thermo-photocatalytic paint.

## Conservation

Store indoors and protected from the sun. If the pail is sealed well the product is maintained for 2 months.

## technical data

THERMAL CONDUCTIVITY	Applied inside: $\lambda = 0,001$ W/mK Applied to the exterior: $\lambda = 0,003$ W/mK
REFLECTANCE	R=80%
VAPOUR RESISTANCE	$\mu = 9.1$
SPECIFIC HEAT	1493 J/KgK (40°) - 2089 J/KgK (90°)
APPROX YIELD TYPE A	1.7 kg/sqmt, 2/2,5 mm thick
APPROX YIELD TYPE B	1.3 kg sqmt, 1 mm thick
SPECIFIC GRAVITY	490 Kg/mc
NON-COMBUSTIBLE	A1
CAPILLARITY WATER ABSORPTION RATIO	0.11 Kg/mq min <sup>0.5</sup>
STRENGTH AND DEFLECTION CRITERIA	1.08 N/mm <sup>2</sup>
RESISTANCE TO BUCKLING	0.38 N/mm <sup>2</sup>
ADHERENCE BY DIRECT TRACTION	0.257 N/mm <sup>2</sup>