



# TILLICA PASTE

ISO.TILLICAPA



Produced in an ISO 9001-14001 certified company. CE UNI 988/1T1 STANDARD  
EN 15824-22 Z2 STANDARD

VOC: UNI EN ISO 16000-9:2006 + ISO 16000-6:2011t

<b>Average solar reflectance, Tillica, ASTM1980-11 standard</b>	<b>0.96</b>
Thermal emissivity standard ASTM C 1371-04 at $\epsilon_t$	<b>0.43</b>
Thermal conductivity UNI 10456 equal to W/mK	<b>0.0020</b>
Specific weight Tillica Paste wet	<b>0.70 kg/l</b>
Specific weight Tillica Paste dry	<b>0.17 kg/l</b>
Permeability to water vapor UNI EN ISO 7783	<b><math>\mu \leq 5.8</math></b>
Permeability to liquid water UNI EN ISO 1062-3	<b>W1</b>
	<b>1.13 j/kgk</b>
Adhesion and traction UNI EN 13687-3, UNI EN 1542 Average value (fh)	<b>0.02 N/m<sup>2</sup> MPa</b>
Direct adhesion UNI EN 1542 (fh)	<b>0.05N/m<sup>2</sup> B</b>
Compressive strength EN 196-1	<b>0.364 N/mm</b>
Sound absorption coefficient: UNI EN ISO 10534-2	<b>at 500Hz with 10 mm 0.16</b>
Reaction to fire class UNI EN 13501-1t	<b>A1</b>
Fire resistance directive (MED) 2014/EU including test requirements and standards (EU) 2017/306	<b>Non - combustible material</b>

## UNI EN 16012-2015STANDARD

The standard describes a set of procedures for using test or calculation methods, defined in existing CEN or ISO standards, to determine the thermal performance of reflective insulation products. The standard applies to all insulating products that owe part of their thermal properties to the presence of reflective or low-emissive surfaces.

## SPECIFICATION ITEM

Insulation with insulating paste, with thermo-insulating and heat-reflecting characteristics (TILLICA) by trowel or mechanically, composed of cured lime putty according to UNI EN 459-1 and amorphous silicon. Product guaranteed without chemical additives, free from gas and VOC; it does not create waste. It is totally recyclable, breathable, fireproof, in class A1, non-toxic and 100% natural. Price per sqm/a Excluding scaffolding

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We decline all responsibility for uses and applications of materials other than those recommended.



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INSULATING MORTARS system 4

## FEATURES AND ADVANTAGES

TILLICA Paste is a heat-insulating and heat-reflective combination of raw materials that are able to isolate and enhance the best thermal value inside and cancel the thermal load of the building on the outside.

It consists of lime putty seasoned according to UNI EN459-1 regulations and Amorphous Silicon.

**Easy to apply** with a plastic trowel or mechanically.

**Practical**, it is a ready-to-use paste product packaged in 15-liter buckets, convenient for transport and storage.

**Safe**, applied to the wall, it creates a single body with the existing plaster

**Impact resistant**, it gives the feeling of emptiness as in traditional sheet coats.

**Breathable**, it keeps the building in thermal and water balance.

**Insulating**, it is not putrescible and maintains and improves its insulating characteristics over time.

**Natural**, produced with selected natural raw materials, non-toxic neither for the operator nor for the treated environments.

**Flame retardant**, it does not burn when in contact with the flame and does not release toxic fumes.

**Recyclable**, it does not create waste, as it is totally used.

**Free from VOC gases**

**Sound absorbing**

**Superior thermal performance.**

**Average consumption** 0,60-070 l/mm/sqm

**With 15l the average yield** is equal to:

1.8 sqm with 8.3 l/sqm equal to 20 cm of eps

4-5 sqm with 3.3 l/sqm equal to 10 cm of eps

7-8 sqm with 2.0 l/sqm equal to 6 cm of eps

Insulated wall:

with 2.2 l. 3°C improvement.

+ 2.2 l. improvement of another 3°C.

## APPLICATION AND INSULATION YIELD

Tillica Paste applied with a trowel or with an air gun does not change the grain size of the mixture, while applied with a pump, the grain size crushed by the pumping system decreases the thickness, which can decrease due to the evaporation of the lime putty water, but does not change the insulating value. It is important to evaluate the kg applied on 1 square meter of wet Tillica.

it is absolutely rigorous the use of the products of the Natural Calk line for maintaining the characteristics of the material and ensure the relevant result.

It is advisable to follow the directions in the METHODS tab FOR USE (on the website on the TILLICA page)

Where it applies: see the METHOD OF USE sheet (on the website on the TILLICA page)

Note: As is known, in natural products, maturation is slow, constant and improves over time, unlike synthetic products; characteristics that do not lead to extensions of application times.

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# TILLICA PASTE KIT/ SYSTEM

ISO.TILLICAPA



DECLARATION OF PERFORMANCE No. 102-CPR-T

## HOW TO APPLY

### a. ANTIBACTERIAL FIXATIVE SUBSTANCE

apply a coat of Natural Calk ANTIBACTERIAL FIXATIVE SUBSTANCE by brush or spray

**Natural Calk Dilu Aon** with water at 30-40% > **Packaging** in 5 l and 17 l drums **Average yield** 7/10 sqm with one liter.

The Antibacterial Fixative substance is ideal as an adhesive for the preparation/consolidation/improvement of the adhesion of the substrate (especially if dusty or in the presence of detachments) for the subsequent application of TILLICA PASTE. It has a good anti-mold bactericidal action.

### b. TILLICA PASTE

**When fresh**, even when the surface is wet and damp of ANTIBACTERIAL FIXATIVE SUBSTANCE, open the drum of TILLICA PASTE, shake off the product; if needed, add water only up to 150 ml, and proceed with the application to the wall in the required thickness (3-5-7 mm) by plastic trowel (recommended), metal trowel or spray (recommended). Depending on the thickness to be applied, perform the operation in more layers. Apply a smoothing coat (smoothing mortar or plaster or marmorino) with TILLICA PASTE still wet. Wait 24 hours before proceeding with the final finish. It is recommended NOT to add dyes of any type or other material to Tillica Paste.

TILLICA PASTE: **Dilu Aon**: if needed, with water up to 150 ml > **Package**: Drums of 15 liters > **Average Consumption** in liters 0.60- 0.70 l/mm/ sqm.

**Example: average yield calculated for a drum of 15 liters: 7 sqm applying a thickness of 3mm, > 4-4.5 sqm applying a thickness of 5mm. Leave to dry for one day for the final finish, it is important to respect atmospheric conditions.**

### c. FINISH

Immediately before applying the type of FINISH, which also is used to protect the TILLICA PASTE, apply a coat of FIXATIVE ANTIBACTERIAL SUBSTANCE and proceed with the fresh subsequent processing using the "finishing products" of the Natural Calk line (plaster smoothing mortar, marmorino, dyes, etc.).

The finish must always be applied in at least two coats: the first to cover the TILLICA PASTE, the second to level; unless otherwise requested, finish the second coat with a trowel and sponge. In particular, if the chosen finish is colored and thick, there is no need to paint.

The types of finish are:

1. Thick finishes (usually used on external walls)
  - **INTONCHINO** White or colored C001 and C002 > natural Calk > **Packaging** 25 kg drums > **Average yield** 2.5-3 kg/sqm two coats
  - **MARMORINO** White or colored C001 and C002 > natural Calk > **Packaging** 25 kg drums > **Average yield** 2.5-4 kg/sqm two coats, average of 4-5 sqm/l.
2. Natural Calk smoothing mortar **Average yield** 3 kg/sqm two coats

Milk White or colored Natural Calk

**Average yield** 50-60 sqm/drum roll/brush.

**3.** For very absorbent surfaces for any kind of work use Primer 12 Natural Calk **Pack** of 5-25 l.

**Average yield** 8-10 sqm/l, apply by brush-roller, wait 1-2 hours before the next application.

### d. PROTECTIVE SUBSTANCE

**On a perfectly dry surface**, apply **BIO PROTECTIVE mix** > .Yield 1/4-5 sqm. Apply by spray starting from the bottom upwards with a surface humidity of 15-20%... **see the website [www.naturalcalk.com](http://www.naturalcalk.com) to choose between the finishes of the Natural Calk line.**

Finishing for **inner walls**

White C001 Natural Calk plaster (standard, in the TILLICA PASTE SYSTEM) or Natural Calk SMOOTHING MORTAR finish. These finishes are to be painted by brush, roller or spray with MILK Natural Calk (white or colored MILK Natural Calk > **Packaging** of 5 l or 17 l > **Average yield** 5 sqm with 1 liter.

The **finishing processes** (trowel, spot, sponge float, etc.) depend on the skills of the applicators, the aesthetic and technical requirements required. Thanks to the total absence of chemical or synthetic additives and the eco-sustainability of the product, it is also possible to create **fine finishes and frescoes** on TILLICA Paste. For these types of finishing, contact the manufacturer.

**ATTENTION! To maintain the performance of the TILLICA PASTE KIT/ SYSTEM and guarantee its result, it is recommended to use only products (an Antibacterial fixative, marmorino, plaster, smoothing mortar, bio protective mix, primer 12, various finishes) from the NATURAL CALK LINE**

-It should also be remembered that Natural Calk products are **rot-proof** and have an unlimited duration, if stored correctly (see the specific technical data sheets), and that TILLICA PASTE **does not waste**, does not create waste and is totally recyclable, complying with European regulations for the use of **ECO-SUSTAINABLE** products.

-Natural Calk products with slaked lime, being without additives, must not be applied if the T° is lower than 5° C or higher than 30°C, paying attention to use in excessively ventilated environments or at risk of rapid drying, protecting the surface from severe temperature changes and rain for at least the following 48 hours.

- The company only takes over responsibility for the product upon delivery to the factory; the application, use and processing are the sole responsibility of the customers. The company reserves the right to change the composition while maintaining its characteristics.

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## WHERE TO APPLY

### APPLICATION ON NEW WALLS WITHOUT PLASTER

1. Plaster with mortar, preferably lime
2. Apply a coat of Natural Calk SMOOTHING MORTAR
3. Proceed with the TILLICA PASTA SYSTEM (processing a., b., c. above)

### APPLICATION ON NEW ROUGH WALLS

If the rough plaster was applied in a workmanlike manner, proceed with the TILLICA PASTA SYSTEM (processing a., b., c. above).

If the substrate is uneven, before proceeding with the TILLICA PASTA SYSTEM, smooth the surface with a coat of Natural Calk SMOOTHING MORTAR.

Natural Calk SMOOTHING MORTAR > Packaging 25 kg drums > Average yield 2 kg/sqm per coat on civil plaster; 1.2 kg/sqm per coat for coat shaving. The yield may vary in relation to the absorption of the support

### APPLICATION ON OLD WALLS

1. Remove all layers of existing paint, and possibly get not leave the to the **rough plaster**. If there is a thin layer of paint, sand the surface to open its pores, allow it to transpire and favor the penetration of the antibacterial fixative. Where necessary, if after the dismantling of existing points, the surfaces are particularly uneven, regularize the support with Natural Calk ANTIBACTERIAL FIXATIVE SUBSTANCE and Natural Calk SMOOTHING MORTAR. In the presence of cracks, enter a plaster net into the LEVELING MORTAR.

2. Proceed with the TILLICA PASTA SYSTEM (process phases a., b., c. above)

### APPLICATION ON DRYWALL, PREFINISHED SURFACES, EXISTING COATS, NEW or EXISTING DOORSTEPS/WINDOW SILLS

1. Apply one coat of acrylic primer for plasterboard or **specific gripprimer**, depending on the type of prefinished surface on which then you will proceed with the TILLICA PASTA SYSTEM.
2. Smooth with a trowel with a coat of Natural Calk BIO-SMOOTHING SUBSTANCE and wait for it to dry before proceeding with the subsequent processing TILLICA PASTA SYSTEM (steps a., b., c. above) Natural Calk BIO-SMOOTHING SUBSTANCE > Packaging 25 kg drums > Average yield 1 kg/sqm

### APPLICATION ON POROUS MATERIALS (CORK, WOOD, CALCIOSILICATE, ETC)

1. Apply a coat of Natural Calk ANTIBACTERIAL FIXATIVE SUBSTANCE Natural Calk ANTIBACTERIAL FIXATIVE SUBSTANCE > **DiluiAon** with 30-40% water **Packaging** 5 and 17l drums > **Average yield** 7/10 sqm with one liter

If the surface is too absorbent, apply a coat of Natural Calk PRIME 12

with a brush or roller. **Package** of 1-5-25 l > **Average yield** 4-6 sqm/l depending on the porosity.

2. When fresh, apply a coat of Natural Calk SMOOTHING MORTAR Natural Calk SMOOTHING MORTAR > **Packaging** 25kg drums > **Average yield** 2kg/sqm per coat on civil plaster; 1.2 kg/sqm for

hand for coat shaving. The yield can vary according to the support absorption

3. Proceed with the TILLICA PASTA SYSTEM (phases a., b., c. above)

### APPLICATION UNDER THE RADIANT HEATING TUBES

The TILLICA PASTA SYSTEM fits the maximum performance radiant heating (both on floor and wall), particularly if the slab is made by LIME Natural Calk LIME PUDDY following the LIME SLAB SYSTEM of the manufacturer. For the peculiarities of such processing, contact the company.

For further details, please refer to the data sheets for each product mentioned in this sheet on [www.naturalcalk.com](http://www.naturalcalk.com) by contacting the manufacturer directly.

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