



THERMAL INSULATING PLASTERS.

IS IT:

☒ *Product*

☐ *Technology*

☐ *Equipment*

APPLICABLE FOR:

☒ *Restoration*

☒ *Rehabilitation*

☒ *New Construction*

APPLICABLE ON:

☐ *1. Foundations and underground structures*

☐ *2. Vertical structures*

☐ *3. Horizontal structures and vertical connections*

☐ *4. Roof and terraces*

☐ *5. Façade and building envelope*

☒ *6. Finishes and completion elements*

☐ *7. Integrated services*

☐ *8. General strategies for building recovery*

Related companies: ISOLSAN.

DESCRIPTION

Thermal insulating plasters for uneven walls, window reveals, for facades when it is not possible to change the appearance of the facade. A thermal insulating plaster can be used to provide thermal insulation to a building when there is a need to increase the thermal performance of existing masonry (for example in the refurbishment of historic buildings with loadbearing masonry, including stone) or to upgrade the insulating capacity of new masonry by locally correcting thermal bridges.

WHY TO USE

- If laid in appropriate thicknesses, it is suitable to achieve the thermal performances required by legislation;
- Definitive solution of degrading effects due to rising damp on wall;
- Resolute solution also on very thick walls;
- Achievement of high thermal insulation;
- Quick application;
- Ideal to any architectural features;
- Excellent adhesion to any surface even if uneven;
- Highly breathable;
- Healthy: it does not contain or release harmful chemical agents;
- Keep original performances on thermal insulation over time;
- Can be used on surfaces of different thicknesses;
- No limitation on the choice of the top finishing;
- Manual and/or mechanical application.

HOW TO USE AND APPLY

- Dehumidification, renovation and external thermal insulation for walls that suffer of rising damp;
- Dehumidification, renovation and thermal insulation of perimetrical and partition walls that suffer of rising damp;
- Thermal insulation and condense control of ceiling;
- Prevention and elimination of superficial and interstitial condenses;
- Elimination of thermal bridges and dehumidification of pillars, beams, ceiling, curbs, etc;
- Protection of walls from rain and dehumidification of walls, beams, pillars, etc. F.

Technical procedure:

Application by means of plaster sprayer (recommended): it is essential to prepare the plaster sprayer with helical mixer with solid screw and a stator specific for lightweight mortars, long pitched screw and 14 mm diameter cap or nozzle. Manual application: mix with cement mixer or with a horizontal mixer, hydrate with clean water in a proportion of lt. 9 per bag. Mix for at least 5 minutes and not more than 10 minutes. • Apply a first coat of about 1 cm of Isolteco. Wait at least 4 hours (but no more than 24 hours) after that the first coat has been applied, then apply the second coat (of maximum cm 2,5 - 3,0). • If it is necessary to apply further coats, repeat the same procedure. Total application thicknesses: minimum cm. 2 – maximum cm. 12. • After 24 – 96 hours from the application of Isolteco (according to the weather conditions and the applied thicknesses), scrape with a scraping knife, trowel, or float. • Not before 10 days from the application of Isolteco, apply the smoothing plaster prepared with Isolteco Rasatura or with Isolteco Rasatura Monocap. In case higher impacts resistance is required, in the Isolteco Rasatura layer is recommended to use a fiberglass scrim. The maximum thickness of application of Isolteco Rasatura must be between 4 and 5 mm.

TECHNICAL CHARACTERISTICS

Thermal conductivity λ_D depends on the manufacturer.

The material is not designed to ensure the thermal properties of a building, it can only improve the thermal properties of construction;

Reduce the thermal bridges of construction;

It can be used for decorative elements.

RECOMMENDATIONS AND OTHER INFORMATION

- Fireproofing protective system, specific to improve the fire resistance of structural elements made of steel, brick, normal and pre-stressed reinforced concrete in both civil and industrial buildings
- Suitable for indoor and outdoor use.
- Can be easily over plastered and painted; no limitation on the choice of top finishing



- Excellent mechanical and impact strength resistance performances (0,97 N/mm² on compression)
- Excellent resistance to climate agents ; suitable for outside installation even on surfaces with high residual moisture
- High stability over time
- Very good thermal insulating properties
- Quick application thanks to a very fast drying

EXAMPLES

The fields of application are:

1. Ceiling thermal insulation;
2. External thermal insulation;
3. Elimination of thermal bridges (pillars, ceiling curbs, etc.)
4. Prevention and elimination of superficial and interstitial condenses;
5. Thermal insulation of perimeter and dividing walls;
6. Protection from rain (facade, beams, pillars, etc)

REFERENCES / SOURCES AND LITERATURE

https://www.edilteco.de/contents/catalogs/en/Intonaci_Pr-emiscelati_Termoisolanti_sett2013_ing.pdf

L. Bianco, V. Serra, S. Fantucci, M. Dutto, M. Massolino.
Thermal insulating plaster as a solution for refurbishing
historic building envelopes: first experimental results.
Energy Build., 95 (2015), pp. 86-91.
<https://doi.org/10.1016/j.enbuild.2014.11.016>

WEBSITE OF THE COMPANY

<https://www.edilteco.de/>

IMAGES AND CAPTIONS

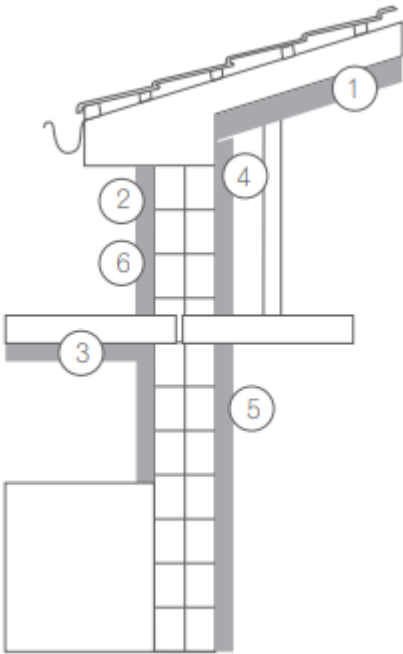


Fig.1: Fields of application. © EDILTECO https://www.edilteco.de/contents/catalogs/en/Intonaci_Premiscelati_Termoisolanti_sett2013_ing.pdf



Fig.2: Application of the product. © https://www.edilteco.de/contents/catalogs/en/Intonaci_Premiscelati_Termoisolanti_sett2013_ing.pdf



Ara Pacis Museum - Rome, Italy



*San Giovanni Battista Church
Castelmaggiore (BO), Italy*



University of Florence - Italy



Eurodisney - Paris



*Waterpark Atlantica
Cesenatico (FC), Italy*



Hotel Krasnaya - Odessa, Ukraine

Fig.3: Examples of interventions where this product was used.

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