

REDArt - EXTERNAL THERMAL INSULATION COMPOSITE SYSTEM.

IS IT:

Product

Technology

Equipment

APPLICABLE FOR:

Restoration

Rehabilitation

New Construction

APPLICABLE ON:

1. Foundations and underground structures

5. Façade and building envelope

2. Vertical structures

6. Finishes and completion elements

3. Horizontal structures and vertical connections

7. Integrated services

4. Roof and terraces

8. General strategies for building recovery

Related companies: ROCKWOOL

DESCRIPTION

This system offers architects two integral External Thermal Insulation Composite Systems for fabric buildings and for wooden structures such as CLT and timber frame.

The system offer excellent performance and resistance to solar impact due to stonewool's dimensional stability that allows the application of dark colours with high absorption and low reflectance. The excellent thermal properties ensure a comfortable environment inside the building, whatever the weather.

It consists of a double-density stonewool panel, RockSATE DUO PLUS, and an exterior mortar finishing with the following components: adhesive mortar, RockSATE insulation slabs, base mortar, silicate and silicone finishing, fiberglass mesh, and mechanical fixings.

WHY TO USE

- Fire safety: non-combustible (A1).
- Acoustic comfort: excellent acoustic conditioning.
- Improved energy efficiency with an attractive decorative finish.
- Aesthetic finish: wide range of finishes and colours available in more than 200 colours and in three grain sizes: 1.0 mm, 1.5 mm and 2.0 mm.
- Breathability of the façade.
- Adaptability to the substrate thanks to the Double Density.
- Easy and quick to install.
- It is a solution that provides warmth and protects the façade of the building.

In Rehabilitation:

- Ideal solution for refurbishment projects as it increases the energy efficiency of the building.
- Reduces the thermal transmittance of the building envelope.
- Insulate without reducing the living space.

In New Construction:

- Aesthetic facades with high performance.
- Excellent mechanical support.
- Reduces energy consumption.

HOW TO USE AND APPLY

Installation on Pitched Roofs:

1. Prepare the base substrate. Ensure the flatness and the condition of the factory sheet.
2. Install the starter profile at a height of at least 15 cm above the exterior floor.
3. Fixing the insulation, RockSATE Duo Plus rock wool panels: Apply REDArt Adhesive mortar on the perimeter and inside of the panel and plastic mechanical fasteners suitable for the type of base substrate. Make sure to lay the panels in a staggered pattern and leave no gaps between them.
4. Install a corner profile to guarantee the correct finish in these areas. Subsequently adhere to the substrate, and once dry, fix the panels with the adhesive mortar.
5. Install the base layer using REDArt Base Layer mortar and embed the reinforcing mesh.
6. Apply a reinforcing mesh in the corners of the openings.
7. Apply REDArt primer coat.
8. Apply REDArt Silicate or Silicone top coat.

TECHNICAL CHARACTERISTICS

Below the composition of the REDArt System for traditional fabric structures with ETA 160270:

- Adhesive mortar REDArt Base Coat Casa, Cement Based Powder, water proportion ¼ liter per kg of cement powder, coverage 3-5 kg/m².

- Rocksate Duo Plus double density slab, 120kg/m³ upper side, 70 kg/m³ lower side, 0,035W/mK.
- Mechanical fixation with screw or hammer-in anchors.
- Base coat REDArt Base Coat Casa, Cement Based Powder, water proportion ¼ liter per kg of cement powder, coverage 3-5 kg/m².
- Reinforcement mesh, one layer coverage 1,1-1,2m²/m², 2 layers 2,2-2,4 m²/m².
- Silicone or Silicate primer, in function of finishing coat, coverage 0,35 kg/m².
- Finishing coat, REDArt Silicone or Silicate top coat, coverage regulated by particle size, from 1,7-3,5 kg/m².
- Paint primer, REDArt Silicate coverage 0,08—0,10 l/m² or Silicone Paint Primer coverage 0,05-0,17 l/m², coverage.
- Paint, REDArt Silicate or Silicone Paint

Composition of REDArt System for CLT ETA 18-0802 and for timber frame structures ETA 18-1042:

- Adhesive mortar substituted by REDArt AdhesiveDS, coverage 2-3 kg/m³.
- Mechanical fixation with screw anchors for wood.
- Base coat REDArt Base Coat Plus, 0,22 liter water per kg cement base coat powder, coverage 5-7 kg/m².
- Mesh and insulation slabs same as REDArt System for fabric structures.

RECOMMENDATIONS AND OTHER INFORMATION

Recommended for single-family homes, social housing, large commercial buildings, schools, etc.

This System is also available for wooden structures such as CLT and timber frame, please visit the links on the reference section for additional information.

EXAMPLES

See figure 1 at the end of this sheet.

REFERENCES / SOURCES AND LITERATURE

https://p-cdn.rockwool.com/syssiteassets/rw-es/herramientas/biblioteca-de-documentos/fachadasate---sistema-redart/redart_catalogo-de-arquitectos_es.pdf?f=20230526071201

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Study Case:

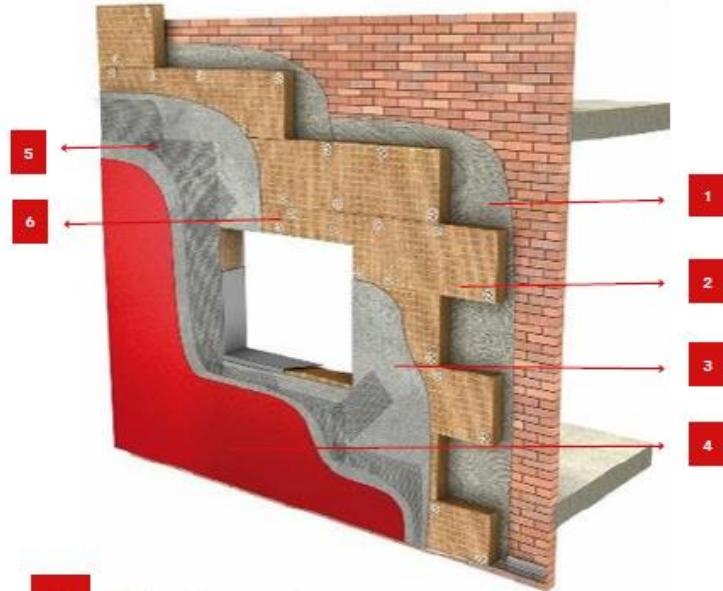
<https://www.rockwool.com/es/consejos-inspiracion/obras-de-referencia/montecanal/>

WEBSITE OF THE COMPANY

<https://www.rockwool.com/>



IMAGES AND CAPTIONS



- 1 Adhesive mortar
- 2 RockSATE insulation slabs
- 3 Base mortar
- 4 Silicate and Silicone finishing
- 5 Fiberglass mesh
- 6 Mechanical fixing

Fig.1: Diagram of the system on a traditional wall structure. © ROCKWOOL