



Rockciel - EXTERNAL THERMAL INSULATION COMPOSITE SYSTEM.

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: ROCKWOOL

DESCRIPTION

Construction solution for thermal and acoustic insulation on the outside of sloping roofs, with an inclination of 0° to 90°, with either heavy (concrete slab) or light (wood or ceramic) support. It is a continuous thermal and acoustic insulation system, which uses Rockciel Double Density Rockwool panels placed on the structural support and fixed by means of a double threaded bolt. Its excellent reaction to fire (A1) provides extra safety on photovoltaic roofs.

Description of construction solution:

- Ceramic tile fixed to the substrate
- Furring of battens
- Breathable waterproofing membrane
- Rockciel rock wool panel
- Light or heavy structural support

Application:

- Pitched roofs from 0° to 90°.
- Heavy or light support
- Insulation on structural support
- Continuous insulation system

WHY TO USE

- Continuous insulation system that avoids thermal bridges.
- Ventilated roof system that reduces the risk of condensation.
- Easy and quick to install.
- Excellent thermal and acoustic insulation. Acoustic test 37dBA (140 mm).
- Maximum safety in case of fire.
- Thermal and dimensional stability.
- The double density of the panel allows better adaptability to the support and improves resistance to point load and compression.
- It can be installed on different substrates: wood, ceramic, concrete, laminated plasterboard, etc.

In Rehabilitation:

- Ideal for complete renovations.
- Easy to install.
- Adapts to the existing support.

In New Construction:

- Good thermo-acoustic performance.
- Suitable solution for light and heavy support.

HOW TO USE AND APPLY

Installation on a light structure (wooden support):

1. A vapour barrier shall be installed if necessary.
2. Place stops at the bottom of the slope.
3. Install Rockciel rock wool panels on the timber or ceramic substrate in staggered staggered rows, starting with the insulation from the eaves to the ridge (bottom to top).
4. Install a water vapour permeable, impermeable to wind and water, membrane.
5. Install the vertical battens, screwing the whole assembly to the supporting structure, using double-threaded lag screws. The length of the fastening should be sufficient to pass through the rock wool board and penetrate the support by 3 or 4 cm.
6. Lay the horizontal battens or board.
7. Install the roof finish.

Installation on a heavy structure (concrete base):

1. The Rockciel System is also suitable for roofs with a heavy concrete-based structure.
2. The installation procedure is the same as for lightweight roofs.
3. The Double Density of the panel allows better adaptability to the support and improves the point load and compression resistance.

TECHNICAL CHARACTERISTICS

Properties	Description	Norm/Code
Nominal Density	150/95 (kg/m ³)	EN 1602
Thermal Conductivity	0,036 (W/m·K)	EN 12667
Dimensions	1200 x 600 (mm)	
Fire Reaction / Euroclass	A1	EN 13501.1
Thermal Resistance	Thickness (mm) vs. Thermal Resistance (m ² K/W) 50 ~ 1.35 60 ~ 1.65 80 ~ 2.20 100 ~ 2.75 120 ~ 3.30 140 ~ 3.85	N/A
Thickness tolerance	T5	EN 823
Dimensional Stability to an specific temperature and moisture	DS (70,90)	EN 1604
Resistance to the passage of Water Vapour	MU1 ~ μ=1	EN 12086
Short-term water absorption	WS < 1,0 kg/m ²	EN 1609
Long-term water absorption by partial immersion	WL(P) < 3,0 kg/m ²	EN 12087
Compressive Strength	CS (10/Y)20 ~ 20 kPa	EN 826
Concentrated Load	PL(5)300 ~ 300 N	EN 12430

RECOMMENDATIONS AND OTHER INFORMATION

The ROCKWOOL Rockciel System can be used both in new construction and building refurbishment or renovation.

EXAMPLES

See figures 1-2 at the end of this sheet.

REFERENCES / SOURCES AND LITERATURE

<https://www.rockwool.com/es/productos-y-aplicaciones/aislamiento-cubiertas/cubierta-inclinada/aislamiento-bajo-y-sobre-cubierta/sobre-cubierta-bajo-rastreles-sistema-rockciel/>

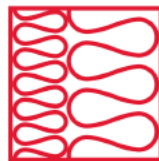
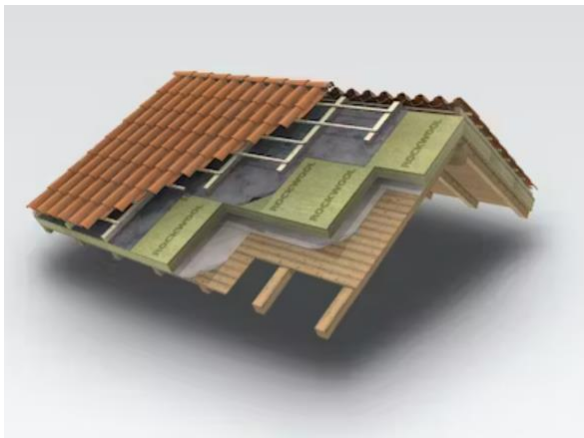
file:///C:/Users/Rene/Desktop/Work/RehabiMed%20Work/IO3/IO3%208.FEB.22/RhM/New%20Format/New%20Batch%2021.Sept.23/FT_Rockciel_ES.pdf

WEBSITE OF THE COMPANY

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



IMAGES AND CAPTIONS

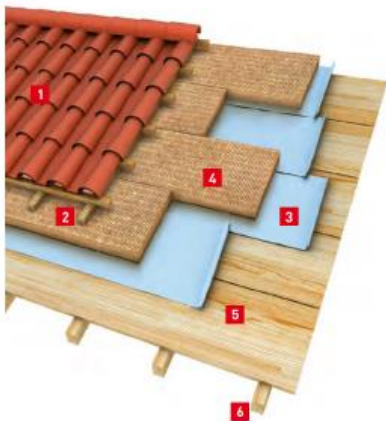


DOUBLE DENSITY PANEL
(within 50 and 140mm)

Superior layer : 150kg/m³
Lower layer : 95kg/m³

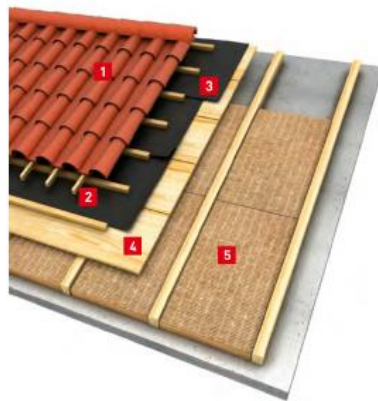
Fig.1: Diagram of the system on a pitched roof. © ROCKWOOL

Wood Board Installation



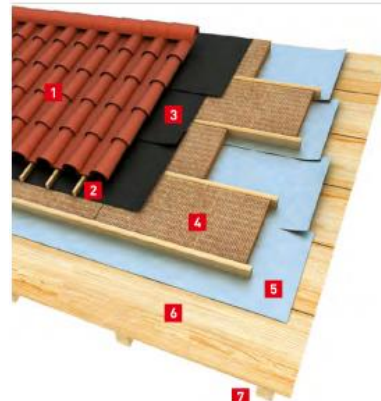
- 1** Roof tile (20mm)
- 2** Wood tiling battens (20mm)
- 3** Vapour control layer (3mm)
- 4** Rockwool Rockciel -E-444 (145mm)
- 5** Wood board (15mm)
- 6** Wood beam

Concrete Installation



- 1** Roof tile (20mm)
- 2** Wood tiling battens (20mm)
- 3** Waterproofing breathable (3mm)
- 4** Wood board (15mm)
- 5** Rockwool Rockciel -E-444 (145mm)

Within battens



- 1** Roof tile (20mm)
- 2** Wood tiling battens (20mm)
- 3** Waterproofing breathable (3mm)
- 4** Rockwool Rockciel -E-444 (145mm)
- 5** Vapour control layer (3mm)
- 6** Wood board (15mm)
- 7** Wood beam

Fig.2: System's installation on different types of supports. © ROCKWOOL