



REDIn – MINERAL WOOL INSULATION 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

This Insulation System insulates from noise, protects from the cold of the winter, from the heat of summer, avoid humidity, and allows you to save on energy bills throughout the life, thanks to the unparalleled benefits offered by the mineral wool; energy efficiency, protection against fire (incombustible), acoustic comfort and durability. The System is an economical solution that helps ensure maximum coverage, with minimal effort, in a variety of settings:

Cavity Walls:

- Insulation is installed between the outer and inner wall, reducing heat lost through cavity spaces in renovated or new builds.

Loft Insulation:

- Loose fill loft insulation is blown in-between and on top of floor joists in attic spaces to prevent heat escaping from the roof.

Timber Frame:

- Blown-in insulation can be applied between timber studs in external walls, providing higher levels of sound proofing and reducing the effects of noise.

WHY TO USE

- Insulates against noise.
- Protects against the cold in winter and the heat in summer.
- Prevents dampness and moisture.
- Saves on energy bills, thanks to the unrivalled performance of rock wool: energy efficiency, fire protection, acoustic comfort and durability.
- Easy, quick and cost-effective installation.

Applications:

- Pitched roofs.
- Chamber insufflated façades (insulated on the inside and outside).
- On false ceilings.

HOW TO USE AND APPLY

Installation on Pitched Roofs:

- Inspect the floor, removing all objects that may be blocking the openings through which bulk rock wool can escape.
- Equip the access to the attic with a wooden frame around the hatch to retain the wool.
- The ROCKIN L rockwool is then blown in using a pneumatic machine.
- The minimum thickness of the rockwool can be measured with graduated rulers.
- The product is evenly distributed during the blowing process.

Installation on Chamber Insufflated Façades:

- Execute the drilling and perforations to carry out the insufflation.
- Calibrate the pneumatic machine and check the density using the control box.
- Insufflate the ROCKWOOL rockwool into the air chamber.
- Carry out regular checks to verify the blown density.
- Seal the perforations.

Installation on False Ceilings:

- Under floor slabs:
- Recommended: Carry out the appropriate operations to check the state of the false ceiling and plenum box, as well as calibrate the pneumatic machine.
- Stake out and drill the holes.
- Insufflate the ROCKIN L rock wool inside the false ceiling.
- Seal the perforations and paint to achieve the same finish.

Over floor slabs:

1. Ensure a clean, horizontal finish of the floor slab or concrete slab.
2. Lay the Rocksol 525 rock wool panels in staggered staggered rows, making sure that they are next to each other.
3. Uncouple the perimeter of the enclosure with a base of Rocksol 525 rock wool, about 20 mm higher than the compression layer.
4. Spread a plastic film over the entire surface to prevent possible concrete leaks and thus avoid acoustic bridges.
5. Pour the floating slab by pouring the compression layer over the insulation, from as far away as possible.
6. The drying phase must be slow, avoiding draughts and extreme temperatures.
7. Lay the finish respecting a distance of no less than 5 mm with respect to the perimeter walls and partitions.

| Propertie | Description | Compliance |
|--|---|------------|
| Nominal density (kg/m ³) | 70 | EN 1602 |
| Thermal conductivity W/(m*K) | 0.037 | EN 12667 |
| Reaction to fire / Euroclass | A1 | EN 13501.1 |
| Thermal resistance (m ² K/W) | Thickness (mm)/ m ² k/w / bags : 30 / 0.8 m ² K/W / 7.1 40 / 1.05 m ² K/W / 9.5 50 / 1.35 m ² K/W / 11.9 60 / 1.60 m ² K/W / 14.3 70 / 1.85 m ² K/W / 16.7 80 / 2.15 m ² K/W / 19 90 / 2.40 m ² K/W / 21.4 100 / 2.70 m ² K/W / 23.8 | - |
| Resistance to the passage of water vapor | MU1 (μ = 1) | EN 12086 |

Rocking L:

Thermal and acoustic insulation of different constructive solutions:

- Filling of air chambers of a thickness equal to or greater than 80 mm in double walls, such as ceramic brick factory, concrete blocks, brickwork or light timber or galvanized steel framing for buildings.
- Insulation of dormers. It is done by blowing the wool nodules using a pneumatic machine or with turbine, with a recommended installation density of 21-25 kg/m³ and a thermal conductivity of 0.045 W/mK.
- Blown into false ceilings. It is done by applying a minimum density of 21 kg / m³ and maximum of 55 kg/m³. It will depend on the load resistance of the existing false ceiling.

TECHNICAL CHARACTERISTICS

Theres two types of insulation products in this system: Rocking S and Rockin L.

Rocking S:

- Rock wool nodules, used to fill air chambers incavity walls.
- The filling system is carried out by blowing through the interior or exterior face of the wall using a pneumatic blowing machine. Wind suction test: Insulation slab with 1 fixing, resisted wind suction of 120 km/h (800 Pa).
- Thermal and acoustic insulation inside walls cavity, such as factory ceramic brick, concrete blocks or masonry.

| Propertie | Description | Compliance |
|---|--|------------|
| Nominal density (kg/m ³) | Double sheet wall: 55 Non-habitable Dormers: 21-25 Insuflated over ceilings: 21-55 | EN 1602 |
| Thermal conductivity W/(m*K) | 0.036 (insuflated) 0.045 (blowing) | EN 12667 |
| Reaction to fire / Euroclass | A1 | EN 13501.1 |
| Thermal resistance (m ² K/W) | Thickness (mm)/ m ² k/w / bags : 80 / 2.2 m ² K/W / 22 90 / 2.5 m ² K/W / 24.8 100 / 2.75 m ² K/W / 27.5 150 / 4.20 m ² K/W / 41.3 180 / 5.00 m ² K/W / 49.5 200 / 5.6 m ² K/W / 55 250 / 6.9 m ² K/W / 68.8 300 / 8.3 m ² K/W / 82.5 | - |
| Resistance to the passage of water vapor | MU1 (μ = 1) | EN 12086 |

RECOMMENDATIONS AND OTHER INFORMATION

N/A

EXAMPLES

See figures 1-4 at the end of this sheet.

REFERENCES / SOURCES AND LITERATURE

<https://www.rockwool.com/es/productos-y-aplicaciones/sistema-redin/>

https://p-cdn.rockwool.com/syssiteassets/rw-es/herramientas/biblioteca-de-documentos/fachada-insuflada---sistema-redin/redin---guia-de-instalacion_es.pdf?f=20230424132009

WEBSITE OF THE COMPANY

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



IMAGES AND CAPTIONS

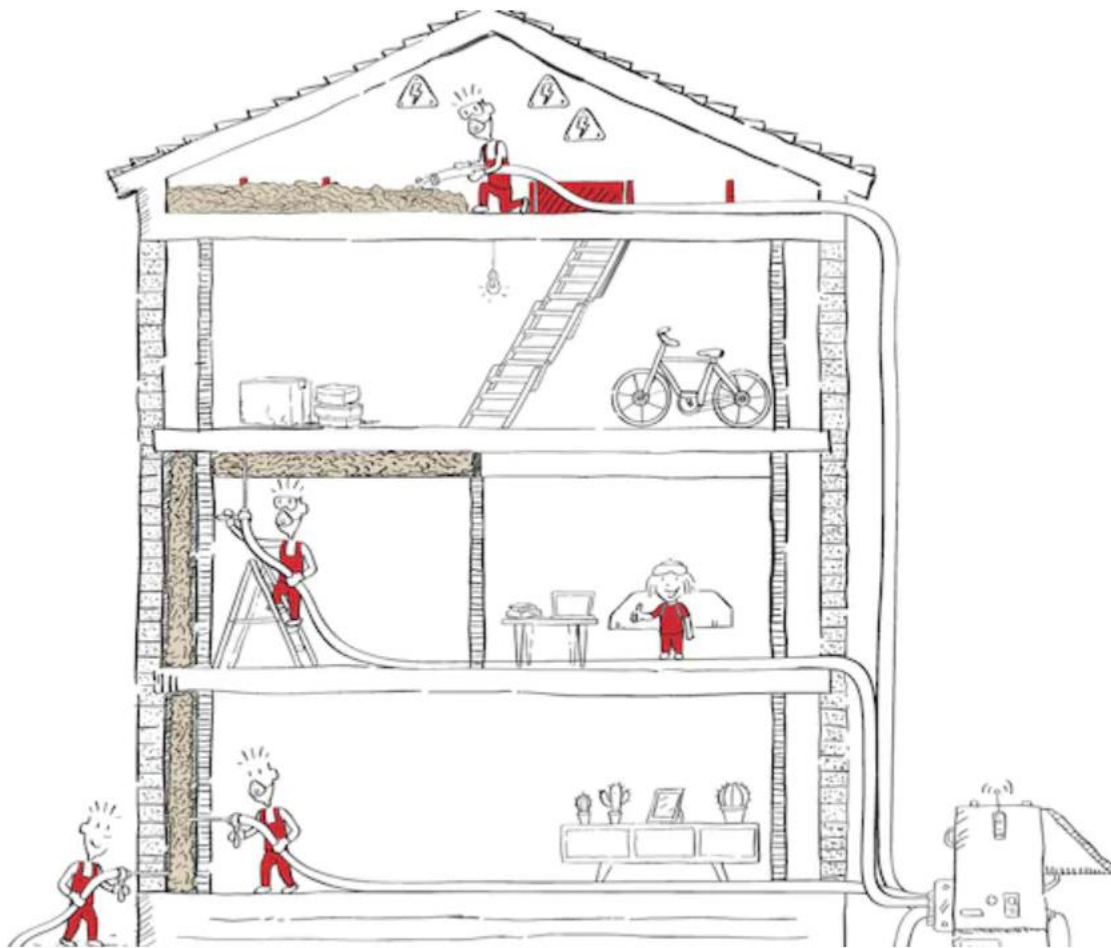


Fig.1: Diagram of the areas in a building where the insulation system can be used. © ROCKWOOL



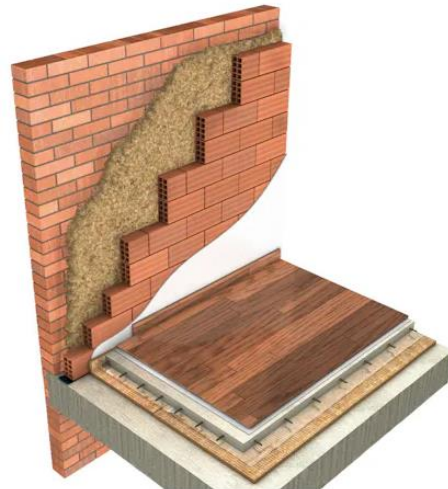
Description of construction solution:

1. Ceramic tile adhered to the substrate (20 mm).
2. Mortar
3. Large-format hollow brick
4. Attic space under the roof formed by partition walls.
5. ROCKIN L bulk rock wool (140 mm)
6. Reinforced concrete floor slab (250 mm).

Applications:

- Rehabilitation
- Ventilated pitched roof
- Heavy or light support
- Insulation under the roof and on the structural support

Fig.2: Diagram of the insulation system's application on Pitched Roofs. © ROCKWOOL



Description of construction solution:

1. Exposed brickwork (115 mm).
2. ROCKIn S / ROCKIn L bulk rockwool (60 mm).
3. Double hollow brickwork (70 mm).
4. Gypsum plaster (15 mm)

Applications:

- Blown insulation into the attic.
- Blown insulation into the wall's air chamber.
- Blown insulation above false ceilings.

Fig.3: Diagram of the insulation system's application on Chamber Insuflated Façades. © ROCKWOOL



Description of construction solution:

1. Gypsum plasterboard (15mm)
2. ROCKIn L insufflated board (80mm)
3. Unventilated air chamber (120mm)
4. Reinforced concrete floor slab (300mm)
5. ROCKsol 525 rock wool board (15mm)
6. Plastic film
7. Finishing screed (25mm)

Applications:

- On slab and false ceiling
- Blown-in insulation
- Horizontal partitions
- Ideal for renovation

Fig.4: Diagram of the insulation system's application on False Ceilings. © ROCKWOOL