

# ROCKACIER C SD

## THE PRODUCT

**ROCKACIER C SD** is a high-density stone wool thermal insulation panel, covered with a layer of bitumen and a thermo-fusible film. **ROCKACIER C SD** is used for thermal insulation of limited access conventional flat and inclined roofing systems. The upper bitumen facing of the panels allows for direct torch welding of the overlaying bituminous waterproofing membrane.

The orientation of stone wool fibers is controlled during manufacture, providing enhanced mechanical performance.

## USES

**ROCKACIER C SD** insulation panels are employed as a direct support for bituminous waterproofing membranes in the following steel deck conventional roofing systems:

- Limited access flat roofs, for which traffic is limited to their maintenance only, including walkways.
- Equipment roofs/zones where traffic is due to the presence of equipment or installations needing frequent maintenance visits.
- Green flat roofs (Extensive or semi intensive).
- Photo-voltaic flat roofs.

**ROCKACIER C SD** 50mm can be applied on both concrete & steel decks (due to its high density 175kg/m<sup>3</sup>).

High Density Stone Wool Roof Insulation Covered with a Bitumen Layer

## MAJOR FEATURES

- Fire safety due to the nature of stone wool as a non-combustible material.
- Durable (R-Value is sustained over time)
- Complete adhesion of the welded waterproofing membrane to the bitumen covered insulation panel, guaranteeing better cohesion of the laminate.
- Excellent thermal & acoustic performance.
- High dimensional stability. No shrinking or deformation over time.
- Rot-proof & a natural barrier against termites.
- Ecological (A natural product and is totally recyclable)
- Environmentally friendly: No ozone depleting gases and no blowing agents during manufacturing process.
- Water repellent, preventing center of boards from moisture.

## APPLICATION

- The panels are laid in a staggered pattern, bitumen covered side facing upwards.
- In steel deck application, the continuous line of joints between panels must be perpendicular to the ribs of the steel sheeting.
- Panels are mechanically fixed to steel deck using “step resistant” fastening assemblies, where fixing place is about 20mm from the edge of the panel. Fastening density is increased at roof edges, corners, and around penetrations.
- In exposed conventional roofing systems on concrete decks, the panels are bonded to substrate using hot oxidized bitumen or compatible adhesive.
- Rockwool insulation boards can be loose laid in concrete deck applications where the conventional roofing system is a Green Roof or is ballasted with a layer of gravel (min. 60mm).
- The overlaying waterproofing membrane is torch welded to the insulation boards. The use of hot applied bitumen directly on **ROCKACIER C SD** is prohibited.
- In multi layer application of Rockwool panels the final layer is **ROCKACIER C SD**, whereas the bottom layer is bare Rockwool boards **ROCKACIER C NU**.

## STORAGE & HANDLING

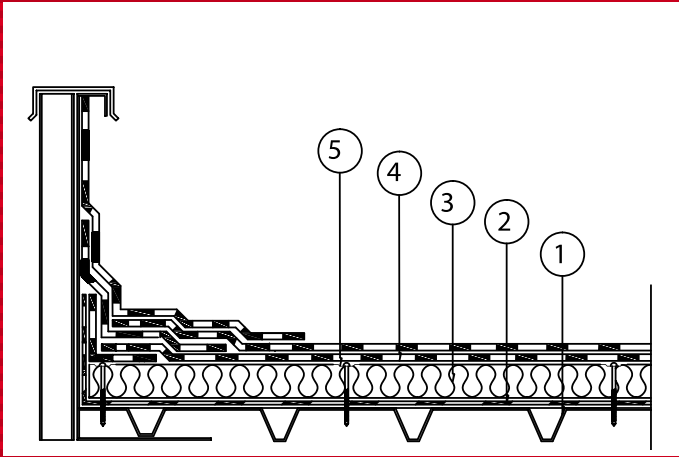
**ROCKWOOL** product must be kept in a properly ventilated and sheltered storage area. Unpack product only at application site. Protect panels from direct exposure to wet weather and do not place near a heat source, as high humidity and heat should not be trapped within the product.

## STANDARD SUPPLY DATA & PALLETISING

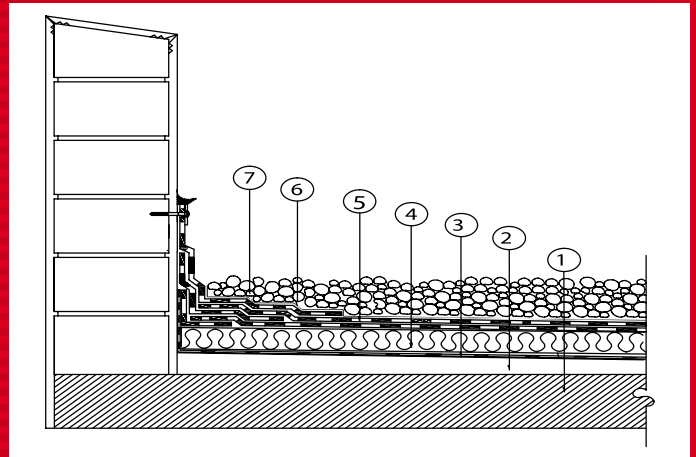
Panels: 1200 mm x 1000 mm

# ROCKACIER C SD

High Density Stone Wool Roof Insulation Covered With a Bitumen Layer  
SD: SOUDABLE (Torch Weldable)



1. STEEL DECK.
2. VAPOR BARRIER (OPTIONAL).
3. ROCKWOOL INSULATION.
4. TORCH-WELDABLE BITUMINOUS WATERPROOFING.
5. FIXATION.



1. CONCRETE DECK.
2. SLOPE CONCRETE.
3. VAPOR BARRIER.
4. ROCKWOOL INSULATION (50MM).
5. TORCH-WELDABLE BITUMINOUS WATERPROOFING.
6. PROTECTION LAYER.
7. GRAVEL BALLAST.

PROPERTIES	UNITS	VALUES
Thickness	mm	50 to 160
<b>THERMAL CONDUCTIVITY</b>		
λ (K-Value)	W/m.K	0.04
	W/m.K	0.042 (50mm)
<b>MECHANICAL PROPERTIES</b>		
Stone Wool density	kg/m3	145
	kg/m3	175 (50mm)
Covering area weight	g/m2	800 (minimum)
Compressibility Class- Deformation under test load of 40 kPa (UEATc)	%	≤ 5
Tension perpendicular to the faces (NF EN 1607)	kPa	20 (Average)
Compression stress @ 10%	kPa	≥ 70
<b>MISCELLANEOUS PROPERTIES</b>		
<b>Reaction to Fire</b> Reaction to fire of core product (1)		Euroclass A1 (non-combustible)
Linear Thermal Expansion Coefficient	°C-1	2x10-6
<b>Residual Shrinkage</b> (@ 20°C after 4 days @ 70°C)		Negligible
<b>Dimensional Stability</b> (@ ambient temperature of 20°C 65-80 % RH)		
Longitudinal Direction	mm/m	1
Transverse Direction	mm/m	1
<b>Average Thickness Expansion</b> (Test Specimen held for 15 min @ 100°C RH then cooled to ambient temperature)	%	Average 2 (< 5%)
<b>Water Absorption</b> (full immersion at 20°C after 24 hours) (Returns to initial weight In 48 hours)	%	2 - 3

(1) Reaction to fire of product with bitumen facing Euroclass F (No Performance Determined)



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