

# Roxul® Conrox for Sandwich Panels

## Product Data Sheet

### PRODUCT FEATURES

- High shear, compression and tensile strength.
- Suitable for effectively flat, smooth and functional sandwich panels.
- Remains flat, dimensionally stable, no blister formation.
- Large spans possible (contact Roxul Asia for calculations).
- Relatively low own weight.
- Permanently high insulating value.
- High heat accumulation capacity.
- Fireproof and resistant to temperatures in excess of 1800 °C. Classified in highest European fire class A1, according to EN 13501-1.
- Excellent acoustic properties.
- Combination possibilities with many types of coverings.

### GENERAL FEATURES

#### Roxul stone-wool is:

- Fireproof, causes no smoke-development and does not produce toxic gases.
- Water repellent, non-hygroscopic and non-capillary.
- Insulating with a vapour diffusion resistance of  $\mu = 1.3$ .
- Sound insulating and has excellent sound absorbing properties.
- Chemically neutral and does not cause or promote corrosion.
- Fully recyclable.
- Dimensionally stable and not liable to shrink or expand.
- Not conducive to mould.
- Harmin and rot-proof.
- Asbestos, CFC and HCFC-free product and process.
- Easy to handle and cut.



### CONROX TYPES

Roxul Conrox can be produced in the following types with different characteristics. L-series are supplied pre-cut by Roxul, whereas S-series are supplied as slabs for customers having their own cutting facilities.

#### L-Series

Conrox Lamella	L 10	L 12	L 15
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#### S-Series

Conrox Slabs for lamella	S 10	S 12	S 15
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### DENSITY AND DIMENSIONS

#### L-Series

Conrox Lamella	L 10	L 12	L 15
Density (kg/m <sup>3</sup> )	100	125	150
Size (L x W (mm) <sup>*</sup>	1200 x 121		1008 x 106
Thickness (mm) <sup>**</sup>	25 - 100	25 - 150	25 - 100

\* Other sizes available upon request

\*\* Thickness tolerance:  $\pm 0.5$ mm

#### S-Series

Conrox Slab	S 10	S 12	S 15
Density (kg/m <sup>3</sup> )	100	125	150
Size (L x W (mm) <sup>*</sup>	1200 x 1800		
Thickness (mm) <sup>**</sup>	121	121	100

\* Other sizes available upon request

\*\* Thickness tolerance:  $\pm 0.5$ mm

## Technical Data

### Technical data Correx L-series

	L 70	L 75	L 75	Standard
Compression Strength (kPa)	105	125	180	EN 526
Compression Modulus (kPa)	7.600	10.000	12.000	EN 526
Tensile Strength (kPa)	260	275	360	EN 1807
Tensile Modulus (kPa)	27.000	31.700	35.000	EN 1807
Shear Strength (kPa)	70	100	100	EN 1090
Shear Modulus (kPa)	1.250	1.700	1.650	EN 1090
Thermal Conductivity (W/mK)	0,040	0,042	0,044	ASTM C 113
Flue Pipe class	A1	A0	A1	EN 13507-1
Fire resistance	30 to >120-minutes. This depends on the construction of the sandwich-panel.			
Application temperature range	-50 °C to 150 °C			
Meltingpoint of stone wool core	>1.200 °C			
Moisture-resistance	Resists less than 0,07%RH	ASTM C1 104/T 104M		
Water absorption	Resists less than 1% ISO 2952-10			

\* Applications below 0 °C are recommended, when vapour seal of warm side is adequately maintained

All above mentioned mechanical properties are average values



## THERMAL PROPERTIES

A sandwich construction guarantees a continuous insulating layer without thermal bridges. The Rexul Correx core material does not age and the heat transmission coefficient remains constant. Thermal bridges cannot be formed between the insulating sheets, as the sheets do not warp or shrink. The sandwich construction therefore offers permanently durable properties.

## FIRE SAFETY

The main properties of Rexul Correx core material with regard to fire behaviour:

- Fireproof. Rexul Correx is fireproof and will not contribute in any manner to the spreading of a fire.
- Highest European fire class A1, according to EN 13501-1.
- Fully dimensionally stable. Rexul Correx does not stretch, shrink or deform when exposed to fire.
- High temperature resistance. The melting point of Rexul Correx is more than 1200 °C.
- Rexul Correx does not cause smoke or burning droplets/parts in the case of fire.
- In the case of fire, no aggressive or environmentally unfriendly substances or gases are released.

Thanks to this combination of product properties, sandwich panels with a Correx core are very fire resistant and the core does not contribute to a fire spreading. Rexul Correx core material therefore helps to prevent total damage in the event of a fire.

## STRENGTH AND STIFFNESS

Walls and roofs are subject to wind loads. Such loads can be considerable, depending on the area of application and the height. Rexul Correx core material has a vertical flange structure with remarkable shear, compression and tensile strengths.

## DIMENSIONAL STABILITY

Walls and roofs made of sandwich panels are exposed to temperatures varying from -25 °C to +50 °C. It is mainly the insulation material, which must limit uncontrolled heat loss or gain. The stone wool insulation ensures that the heat does not penetrate the building easily. Rexul Correx is fully dimensionally stable, insensitive to temperature and moisture, and is durable. Correx will therefore not result in tension in the sandwich panels. The thermal coefficient of expansion is virtually zero. Moreover, Correx easily absorbs tension and distortion caused