

PAROC PreCast

General panel slab



Certification Number	0809-CPR-1015 / VTT Expert Services Ltd, P.O. Box 1001, FI-02044 VTT, Finland
Designation Code	MW-EN13162-T5-DS(70,-)-CS(10)5-WL(P)-MU1
Short Description	Concrete panel slab PAROC PreCast is non-combustible stone wool insulation for pre-cast concrete building elements.
Application	Stone wool insulation for pre-cast concrete building elements

PAROC stone wool products are capable of withstanding high temperatures. The binder starts to evaporate when its temperature exceeds approximately 200°C. The insulating properties remain unchanged, but the compressive stress weakens. The softening temperature of stone wool products is over 1000°C.

Dimensions

Dimensions	
Width x Length	Thickness
600 x 1200 mm	30, 50, 70, 140, 200, 220 mm
600 x 1500 mm	30, 50, 70, 140, 200, 220 mm
In accordance with EN 822	In accordance with EN 823

Dimensional Stability		
Property	Value	According to
Dimensional Stability at Specified Temperature (Declared), DS(70,-)	≤ 1 %	EN 13162:2012 + A1:2015 (EN 1604)

Packaging

Package Type	Plastic package, Plastic package on a pallet
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Fire Properties

Reaction to Fire		
Property	Value	According to
Reaction to Fire, Euroclass	A1	EN 13162:20012 (EN 13501-1)

Continuous Glowing Combustion

Property	Value	According to
Continuous Glowing Combustion	NPD	EN 13162:2012 + A1:2015

Other Fire Properties

Property	Value	According to
Combustibility	Non-combustible	EN ISO 1182

Thermal Properties

Thermal Resistance

Property	Value	According to
Thermal Resistance	See attachment	EN 13162:2012 + A1:2015
Thermal Conductivity λ_D	0,034 W/mK	EN 13162:2012 + A1:2015 (EN 13162)
Thickness Tolerance, T	T5	EN 13162:2012 + A1:2015 (EN 823)

Air Permeability

Property	Value	According to
Air Permeability Coefficient, ℓ	$45 \times 10^{-6} \text{ m}^3/\text{m}^2\text{sPa}$	

Direct Airborne Sound Insulation Index

Property	Value	According to
Air Flow Resistivity AF_R	NPD	EN 13162:2012 + A1:2015 (EN 29053)

Moisture Properties

Water Permeability

Property	Value	According to
Water Absorption, Short Term W_S , W_p	$\leq 1 \text{ kg/m}^2$	EN 13162:2012 + A1:2015 (EN 1609)
Water Absorption, Long Term $W_L(P)$, W_{lp}	$\leq 3 \text{ kg/m}^2$	EN 13162:2012 + A1:2015 (EN 12087)

Water Vapour Permeability

Property	Value	According to
Water Vapour Resistance Z	NPD	EN 13162:2012+A1:2015
Water Vapour Transmission MU , μ	1	EN 13162:2012 + A1:2015 (EN 12086)

Sound Properties

Acoustic Absorption Index

Property	Value	According to
Sound Absorption	NPD	EN 13162:2012 + A1:2015 (EN ISO 354)

Impact Noise Transmission Index (for Floors)

Property	Value	According to
Dynamic Stiffness SD	NPD	EN 13162:2012 + A1:2015 (EN 29052-1)

Mechanical Properties

Compressive Strength

Property	Value	According to
Compressive Stress at 10 % deformation $CS(10)$, σ_{10}	5 kPa	EN 13162:2012 + A1:2015 (EN 826)
Compressive Strength $CS(Y)$, σ_m	NPD	EN 13162:2012 + A1:2015 (EN 826)
Point Load $PL(5)$	NPD	EN 13162:2012 + A1:2015 (EN 12340)

Property	Value	According to
Compressibility CP	NPD	EN 13162:2012 + A1:2015

Tensile Flexural/Strength		
Property	Value	According to
Tensile Strength Perpendicular to Faces TR, σ_{mt}	NPD	EN 13162:2012 + A1:2015 (EN 1607)

Emissions

Release of Dangerous Substances to the Indoor Environment		
Property	Value	According to
Release of Dangerous Substances	NPD	EN 13162:2012 + A1:2015

Durability

Durability of Compressive Strength against Ageing/Degradation		
Property	Value	According to
Compressive Creep CC(i1/i2/y) σ_c , X_{ct}	NPD	EN 13162:2012 + A1:2015 (EN 1606)

Durability of Reaction to Fire Against Heat, Weathering, Ageing/Degradation

The fire performance of mineral wool does not deteriorate with time. The Euroclass classification of product is related to the organic content, which cannot increase with time.

Durability of Thermal Resistance Against Heat, Weathering, Ageing/Degradation

Thermal conductivity of mineral wool products does not change with time, experience has shown the fibre structure to be stable and the porosity contains no other gases than atmospheric air.

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