

PAROC CEL 60CS100

Metal panel core lamella



Certification Number	0809-CPR-1015 / Eurofins Expert Services Ltd, P.O. Box 1001, FI-02044 VTT, Finland
Designation Code	MW-EN13162-T5-DS(70,-)-WS-WL(P)-MU1
Short Description	Rigid, fire safe stone wool slab is cut into lamellas in the run direction of the wool production line.
Application	Thermal insulation in metal faced sandwich panels. Insulation lamellas are glued under press to the panel covering sheets. Product properties of the ready panel are depending of used technique.

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
90-150 x 1200-2400 mm	50 - 240 mm
In accordance with EN 822	In accordance with EN 823

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

Dimensions to be checked by the production line.

Packaging

Package Type Lamellas on wooden pallet

Pallets stretch wrapped with a top sheet for weather protection. Transport protection on requirement.

Fire Properties

Reaction to Fire		
Property	Value	According to
Reaction to Fire, Euroclass	A1	EN 13162:2012 + A1:2015 (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

Non-combustible core material creates additional fire resistance for light weight panels.

Thermal Properties

Thermal Resistance		
Property	Value	According to
Thermal Resistance	See attachment	EN 13162:2012 + A1:2015
Thermal Conductivity λ_D	0,041 W/mK	EN 13162:2012 + A1:2015 (EN 13162)
Thickness Tolerance, T	T5	EN 13162:2012 + A1:2015 (EN 823)

Direct Airborne Sound Insulation Index		
Property	Value	According to
Air Flow Resistivity AF_R	NPD	EN 13162:2012 + A1:2015 (EN 29053)

No ageing increase to thermal conductivity because of open structure in the stone wool. Non-combustible core material creates extra fire resistance for light weight panels.

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)

Long term durability on high level after ageing test in high temperature and moisture conditions.

Sound Properties

Acoustic Absorption Index		
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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}	NPD	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)

Compressibility

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)

The lamella along the panel length, the cut surface against metal faces.

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 $CC(i1/i2/y)\sigma_c, X_{ct}$	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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