



DECLARATION OF PERFORMANCE No. 61/MW/ALA

1. Unique identification code of product-type:

**Sandwich panel Ruukki Firewall 200.1 and 230.1 (structural system)
with mineral wool core**

2. Intended use:

Self-supporting metal faced insulating panels for use in buildings: external walls, internal walls.

Detailed intended use refers to the sandwich panel type – information in attachment to this declaration.

3. Manufacturer:

Ruukki Construction Oy
Mäkeläntie 9
FI-62900 Alajärvi
Finland

4. Authorized representative: Not applicable

5. AVCP level:

reaction to fire: 1, fire resistance: 3, other properties: 4

6a. Harmonised standard:

EN 14509:2013 "Self-supporting double skin metal faced insulating panels. Factory made products. Specifications"

Notified body:

Eurofins Expert Services Oy (0809)
Certificate of Conformity 0809-CPR-1137

7. Declared performances:

Technical product characteristics of specified product configuration are available in attachments to this Declaration of Performance.

The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:



Adam Korol
Senior Vice President
Building Components

Helsinki, 11.03.2022

Attachment 1 to Declaration of Performance 61/MW/ALA

Panel type:	Ruukki Firewall 200.1, 230.1 (structural system)			
Reference to harmonized standard:	EN 14509:2013			
Intended use:	External walls, internal walls (single spans)			
Panel thickness:	200	230	Reference	
Year when CE-marking was affixed:	22	22		
Thickness of external facing:	0.70		mm	(EN 10143)
External facing - steel grade:	S280GD+Z			(EN 10346)
Coating on external facing:	Hiarc, Hiarc matt, Hiarc max, Polyester, Pural or other colour coating with PCS $\leq 4,0 \text{ MJ/m}^2$			(EN 10169)
Thickness of internal facing:	0.70		mm	(EN 10143)
Internal facing - steel grade:	S280GD+Z			(EN 10346)
Coating on internal facing:	Hiarc, Hiarc matt, Hiarc max, Polyester, Pural or other colour coating with PCS $\leq 4,0 \text{ MJ/m}^2$			(EN 10169)
Core material:	MW			
Density of core material:	120		kg/m ³	
Nominal panel thickness:	198	232	mm	
Mass:	36.1	40.2	kg/m ²	
Mechanical resistance:				
Tensile strength:	0.150	0.150	MPa	
Shear strength:	0.076	0.071	MPa	
Reduced long term shear strength:	0.053	0.049	MPa	
Shear modulus (core):	6.8	6.8	MPa	
Compressive strength:	0.115	0.115	MPa	
Creep coefficient t=2000h:	NPD (not applicable)			
Creep coefficient t=100000h:	NPD (not applicable)			
Wrinkling strength (external face):				
- in span:	165	165	MPa	
- in span, elevated temperature:	165	165	MPa	
Wrinkling strength (internal face):				
- in span:	165	165	MPa	
- in span, elevated temperature:	165	165	MPa	
Resistance to point load:	NPD (not applicable)			
Repeated access load:	NPD (not applicable)			
Other properties:				
Thermal transmittance, U _{d,s} :	0.22	0.19	W/m ² K	
Thermal conductivity of the core; λ_{Design} :	0.045		W/mK	
Reaction to fire:	A2-s1,d0		Class	(EN 13501-1)
Fire resistance (wall, horizontal orientation):	EI-M 120*		Class	(EN 13501-2)
Water permeability:	A		Class	(EN 12865)
Air permeability, pressure (per 1 effective m ²):	n = 0.694, C = 0.018			(EN 12114)
Air permeability, suction (per 1 effective m ²):	n = 0.048, C = 0.29			(EN 12114)
Water vapour permeability:	Impermeable			
Airborne sound insulation; R _w (C:C _{tr}):	31 (-2;-3)	31 (-2;-3)	dB	(EN ISO 717-1)
Sound absorption; α_w :	0.1			(EN ISO 11654)
Durability; DUR2:	Pass			

Detailed product/material specification is given on order confirmation or delivery documentation.

*When executed as a structural system according to the instructions by manufacturer