

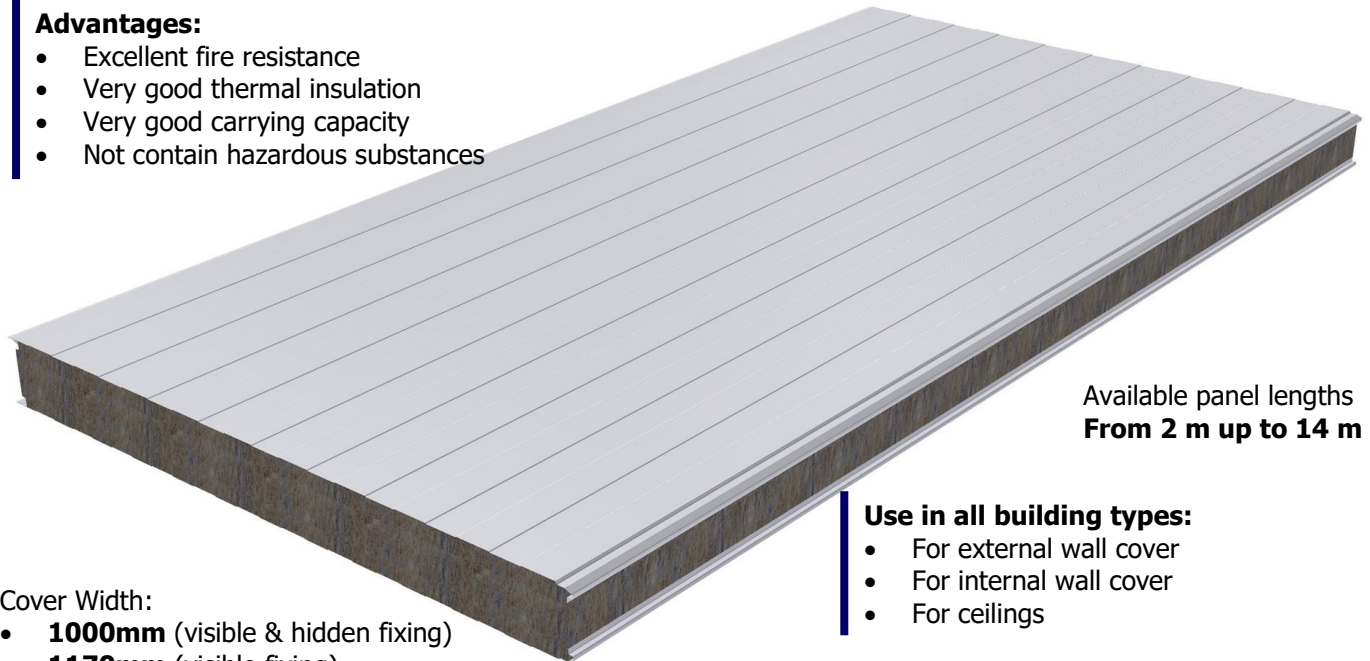
## Product Data Sheet

# Mineral Wool Wall Cover Panel W . MW 5.15

Factory made Self-supporting double skin metal faced insulating mineral wool core panels

### Advantages:

- Excellent fire resistance
- Very good thermal insulation
- Very good carrying capacity
- Not contain hazardous substances



Available panel lengths  
**From 2 m up to 14 m**

### Use in all building types:

- For external wall cover
- For internal wall cover
- For ceilings

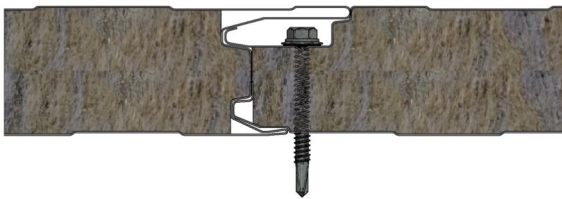
Cover Width:

- **1000mm** (visible & hidden fixing)
- **1170mm** (visible fixing)

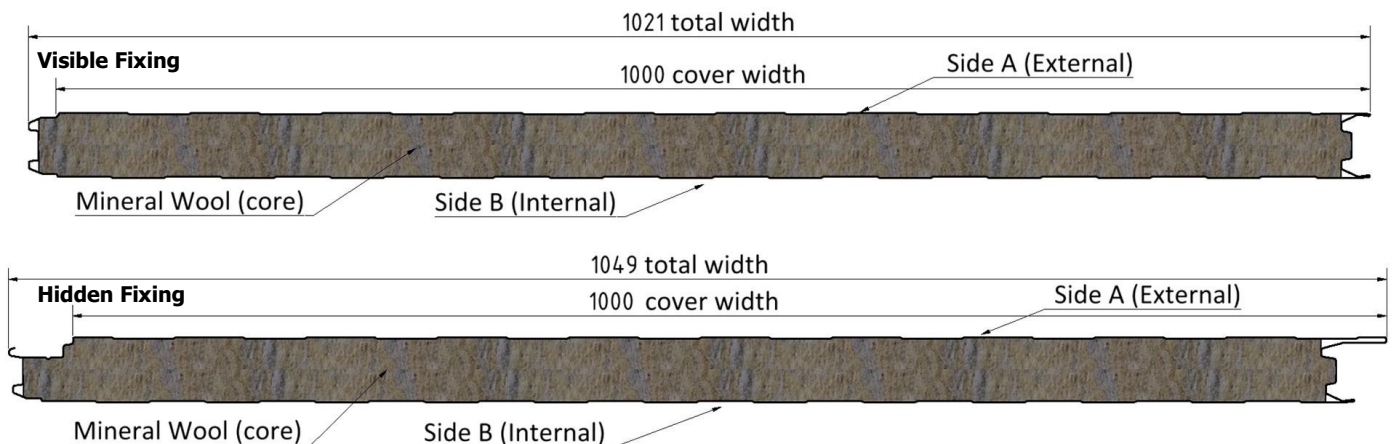
Panel Thickness : **50, 60, 80, 100, 120, 150, 180 & 200[mm]**

There are also available hidden fixing panels which are fastened to the bearing structure by the method of hidden anchoring. The panel has such a configuration in its profile so that the support elements are not visible and therefore offer an excellent aesthetic effect without depriving their characteristic properties.

- Mineral wool wall cover panels can be installed either vertically or horizontally. At the horizontal installation it is recommended to use additional accessories to cover the vertical joint.



Mineral wool wall cover panels are fastened to the bearing structure by the standard method of visible anchoring. This method adds strength to the construction and an industrial look to the building.



**Mineral Wool Wall Cover Panel / W . MW 5.15 / Data Sheet****Dimensional Tolerances** (according to the EN 14509)

Panel thickness	$\pm 2$ mm	$D \leq 100$ mm
	$\pm 2$ %	$D > 100$ mm
Deviation from flatness	$\leq 0,6$ mm	$Li = 200$ mm
	$\leq 1,0$ mm	$Li = 400$ mm
	$\leq 1,5$ mm	$Li = 700$ mm
Depth of light profile	$\pm 30$ %	$ds \leq 1$ mm
	$\pm 0,3$ mm	$1 \leq ds < 3$ mm
	$\pm 10$ %	$3 \leq ds < 5$ mm
Panel length	$\pm 5$ mm	$L \leq 3000$ mm
	$\pm 10$ mm	$L > 3000$ mm
Panel cover width	$\pm 2$ mm	$W = 1000$ mm
		$W = 1000$ mm
Deviation from squareness	$\leq 6$ mm	$W = 1000$ mm
Deviation from straightness	$\leq 1$ mm/m	$\leq 5$ mm
Bowing (Length)	$\leq 2$ mm/m	$\leq 20$ mm
Bowing (Width)	$\leq 8,5$ mm/m	$h \leq 10$ mm
	$\leq 10$ mm/m	$h > 10$ mm
Pitch of profile	$\pm 2$ mm	$h \leq 50$ mm
	$\pm 3$ mm	$h > 50$ mm
Ribs width	$\pm 1$ mm	For b1 value
Valleys width	$\pm 2$ mm	For b2 value

Metal Sheet Thickness &gt; 0,5 mm

**Metal sheet options**

Steel prepainted, galvanized, produced according to EN 10204-2.2

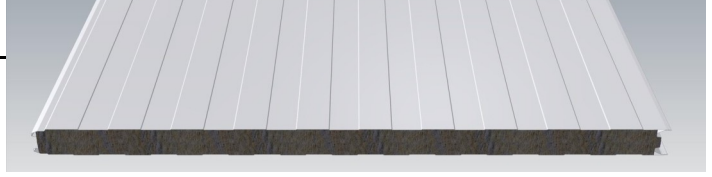
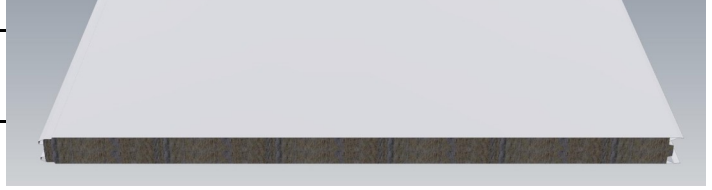
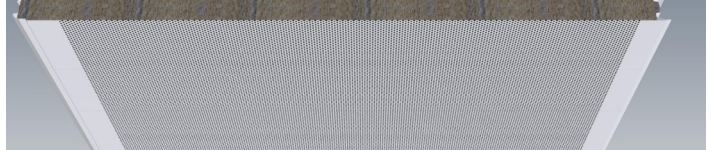
- Metal grade DX51D, S220, S250, S280, according to EN 10346 and EN 10143
- Hot-dip zinc coating, Z70 to Z275 gr/m<sup>2</sup>
- AluZinc protection, az70 to az265 gr/m<sup>2</sup>
- Nominal thickness from 0,35 mm **up to 1,0mm**
- Polyester, Plastisol or PVDF color coating

Aluminum uncoated with aluzinc protection or prepainted, produced according to EN 10204-3.1

- Aluminum alloy of series 1xxx, 3xxx ñ 5xxx
- Hardness degree H14, H24 ñ H44
- AluZinc protection from az70 gr/m<sup>2</sup>
- Nominal thickness from 0,35 mm to 1,0mm
- Polyester color coating with min 20µm thickness

Stainless Steel, produced according to EN 10088-1

- Metal grade AISI 304 2B ñ AISI 316 L
- Nominal thickness from 0,35 mm to 1,0mm
- Mat or gloss color coating

**Metal Face profile options****Box 100(50-50)****Microrib****Embossed****Flat****Box 83(39-44)****Perforated****External face profiles:**

- Box 100(50-50)
- Microrib
- Flat
- Embossed

**Internal face profiles:**

- Box 83(39-44)
- Flat
- Perforated\*

\*Upon request, the internal face may be perforated with dustproof sheet. The diameter of perforated holes is 3mm, with 5mm distance between them and hole percentage 28% of the total surface. Perforated metal faces are available in two colors, RAL 9005 (reduction of reflections) and RAL 9002.

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**Color coating options**

Typical Polyester coating

Polyester paints are the most common and the most economical coatings. They are suitable for both external and internal surfaces.

With a nominal thickness >15µm, it has a very good resistance to external environmental conditions.

Durable Plastisol coating

Plastisol coating is very durable to external environmental conditions. It is suitable for outdoor applications where the durable requirements are high.

The nominal coating thickness is up to 200µm.

High req PVDF coating

PVDF coating is suitable for buildings of architectural applications where the texture and color conservation are important. Also its reaction to fire is excellent because it has limited production of smoke, **class S1**. The nominal thickness is >50mm.

**Insulated High Density Mineral Wool Core**

The 100 kg/m<sup>3</sup> high density mineral wool insulation core offers excellent resistance to fire and thermal transmittance.

It has low indicators of water permeability and air permeability and high sound absorption index.

The mineral wool is **bio soluble** and is certified according to the supplier declaration.

It does not contain or release dangerous substances for health and environment.

Upon request, mineral wool wall cover panels with 120 kg/m<sup>3</sup> high density mineral wool core, are available.

**Mineral Wool Core Essential Characteristics**  
(according to EN 13162)

Reaction to fire	A1	Euroclass (EN 13501)
Thermal conductivity λ	0,033	W / m.K
Special thermal capacity C	0,84	kJ/kg.K
Water / vapor permeability μ	1	
Long term water absorption Wlp	< 3	Kg / m <sup>2</sup>
Resistance to air permeability	66	kPa.s/m <sup>2</sup>
Compression strength	10	kPa
Density	120	kg/m <sup>3</sup>
Density	100	kg/m <sup>3</sup>

**Characteristic properties**

Panel nominal thickness	Panel Weight (W 1000mm)	Thermal Transmittance U	Fire Resistance Index	Sound Reduction Index Rw (C;Ctr)	
				Normal-[dB]	Perforated-[dB]
[mm]	[kg/m <sup>2</sup> ]	[W/m <sup>2</sup> .K]			
50	13,9	0,69	EI 15	30 (-1;-3)	33 (-1;-4)
60	14,6	0,54	EI 30	-	-
80	16,9	0,41	EI 90	31 (-1;-3)	-
100	18,6	0,32	EI 180	-	35 (-1;-3)
120	20,9	0,27	EI 240	-	-
150	23,9	0,22	EI 240	-	-
180	26,9	0,18	EI 240	-	-
200	29,2	0,16	EI 240	-	-

**Panel Weight:** Panel weight was calculated with core density 100 kg/m<sup>3</sup> and steel faces of thickness 0,50/0,50 mm (typical metal faces)

**Thermal Transmittance U:** The thermal transmittance of the panel was calculated according to EN 14509 and EN 10211-2, with core density 100 kg/m<sup>3</sup>, core thermal conductivity 0,033 W/mK, and steel faces external/internal of thickness 0,50/0,50mm (typical metal faces). Polyester coating. Calculations were made in the nominal thickness of the panel.

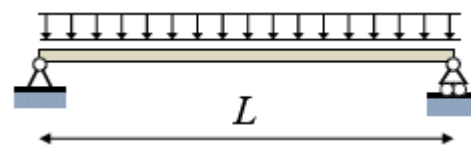
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**Fire resistance index:** Mineral wool panels are classified according to EN 13501-1 and EN 13501-2, in terms of reaction and resistance to fire. Mineral wool panels are classified as **A2-s1-d0**. They do not transmit fire, do not ignite, have very limited smoke production and do not drop flaming or non-flammable particles.

**Weighted sound reduction index:** Sound reduction index was measured according to EN ISO 140-3 standards and the classification is according to EN ISO 717-1 with core density 100 kg/m<sup>3</sup> and steel faces external/internal of thickness 0,50/0,50 mm (typical metal faces).

**Max load in span - Load bearing capacity (kg/m<sup>2</sup>)****Single Span Load Table**

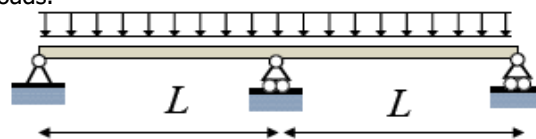
Panel thickness	Max Span L [m]																	
	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00	5,50	6,00	
<b>50</b>	145	120	105	95	85	75	70	55										
<b>60</b>	175	150	130	115	100	90	85	70	60									
<b>80</b>	240	205	180	160	145	130	110	90	85	70	60	55						
<b>100</b>	305	260	230	205	180	165	140	120	100	90	80	70	60	55				
<b>120</b>	370	315	280	250	220	180	175	145	125	105	90	85	75	65	60			
<b>150</b>	415	355	310	275	250	225	210	185	160	145	120	105	95	85	75	65	55	
<b>180</b>	465	400	345	305	280	255	235	200	180	165	145	130	115	100	90	80	70	
<b>200</b>									205	190	180	160	150	130	115	105	95	75



- \* Calculations according to EN 14509, the values indicate the ultimate or the serviceability limit state (l/100)
- \* Steel sheet face thickness: external 0,50mm / internal 0,50 mm.
- \* Support width 120mm. Anchoring should be able to withstand the panel loads.

**Multi Span Load Table**

Panel thickness	Max Span L [m]																
	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00	5,50	6,00
<b>50</b>	135	110	95	85	75	65	55										
<b>60</b>	165	140	115	100	85	75	60	55									
<b>80</b>	185	160	135	110	95	80	75	60	55	50							
<b>100</b>	190	170	140	125	100	85	80	70	60	55	50						
<b>120</b>			150	135	110	90	85	75	65	60	55	50					
<b>150</b>				145	115	100	90	85	75	70	60	55	50				
<b>180</b>					120	110	95	90	80	75	65	60	55	50			
<b>200</b>					125	115	105	95	85	80	70	65	60	55	50		



- \* Calculations according to EN 14509, the values indicate the ultimate or the serviceability limit state (l/100)
- \* Steel sheet face thickness: external 0,50mm / internal 0,50 mm.
- \* Support width 120mm. Anchoring should be able to withstand the panel loads.

**Metal sheet color coating options. Please visit our website:**

**[https://www.metallemporiki.gr/pr\\_oducts/xromatologio](https://www.metallemporiki.gr/pr_oducts/xromatologio)**

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