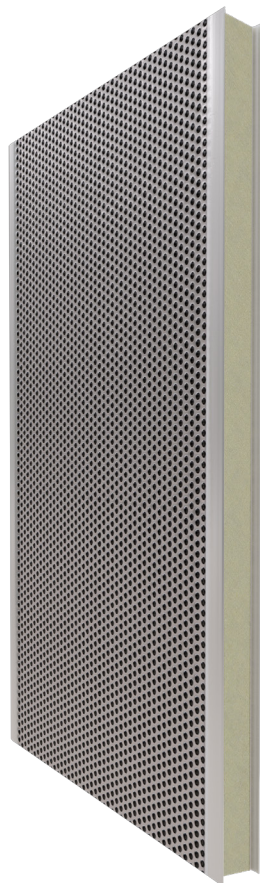




# ThermaMagma WAL EchoLock

Self-supporting, exposed-fix insulated wall panels with an external metal facing, an internal perforated metal facing, and a stone wool core. They are suitable for wall cladding where enhanced acoustic performance is required

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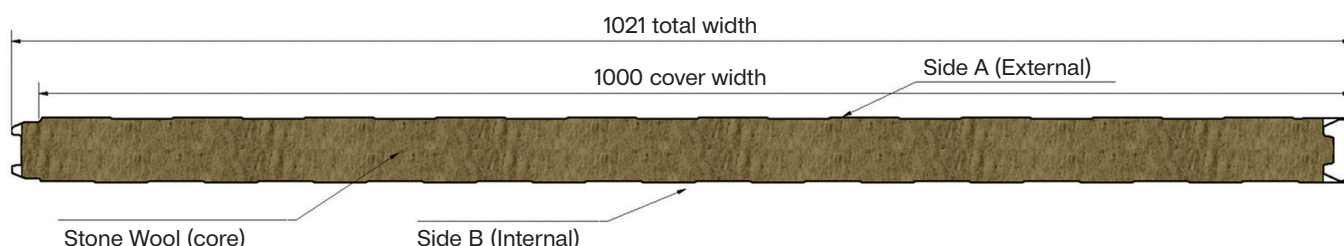
## Available in

Effective width 1000mm and 1170mm | Nominal thickness from 50mm to 200 mm

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Bespoke lengths: 2m to 14m, depending on project requirements

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They are fixed to the supporting structure using the standard concealed-fix method.

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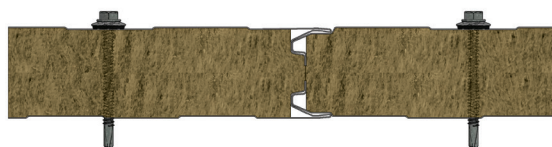
They can be installed either vertically or horizontally.

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For horizontal installation, the use of a top hat is recommended to cover the vertical joint.

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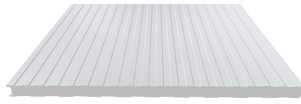
Sealing materials must be used on both horizontal and vertical joints.



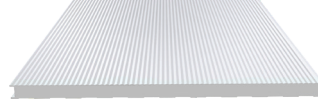
## External facing profile options



Flat



Mini box 51 (25,5-25,5)



Microrib

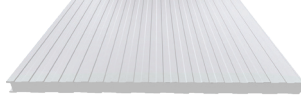


Embossed

## Internal facing profile options



Flat



Box 83 (39-44)

Holes Ø3mm, 5mm pitch (centre-to-centre), open area 28% of total surface.

Available in two colours: RAL 9005 to reduce reflection and RAL 9002.

# Technical Specifications

## Dimensional Tolerances

(according to the EN 14509)

Metal Sheet Thickness > 0,50mm

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

Panel weight and thermal transmittance were calculated based on:

- Core density 100 kg/m<sup>3</sup>
- Core thermal conductivity 0.033 W/mK
- Steel sheet thicknesses 0.50 / 0.50 mm
- Coating SP

(Standards EN 14509 and EN 10211-2)

Sound reduction was measured according to EN ISO 140-3 and the classification was made according to EN ISO 717-1

## Fire resistance

Stone wool panels are classified as A2-s1,d0. They do not contribute to fire spread, do not ignite, produce very limited smoke, and do not generate flaming or non-flaming droplets or particles.

The fire classification was determined in accordance with EN 13501-1 and EN 13501-2.

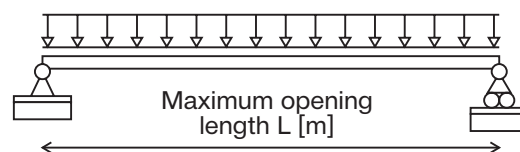
Panel nominal thickness	Panel weight	Thermal Transmittance	Sound reduction R <sub>w</sub> (C;Ctr)
[mm]	[kg/m <sup>2</sup> ]	U [W/m <sup>2</sup> .K]	Perforated-[dB]
50	13,9	0,69	33 (-1;-4)
60	14,6	0,54	-
80	16,9	0,41	-
100	18,6	0,32	35 (-1;-3)
120	20,9	0,27	-
150	23,9	0,22	-
200	29,2	0,16	-

## Max load in span Load bearing capacity (kg/m<sup>2</sup>)

Single Span Load Table

### PANEL THICKNESS

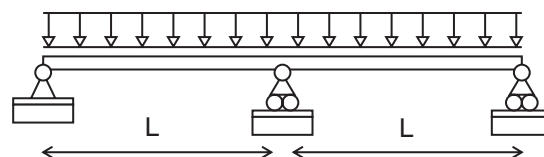
	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00	5,50	6,00
<b>50</b>	145	120	105	95	85	75	70	55	-	-	-	-	-	-	-	-	-
<b>60</b>	175	150	130	115	100	90	85	70	60	-	-	-	-	-	-	-	-
<b>80</b>	240	205	180	160	145	130	110	90	85	70	60	55	-	-	-	-	-
<b>100</b>	305	260	230	205	180	165	140	120	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>200</b>	-	-	-	-	-	-	-	205	190	180	160	150	130	115	105	95	75



Multi Span Load Table

### PANEL THICKNESS

	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>200</b>	-	-	-	-	125	115	105	95	85	80	70	65	60	55	50	-	-



Calculations were carried out in accordance with EN 14509; the values indicate the maximum allowable load or the serviceability limit state (l/100). The facings are steel, with external / internal sheet thicknesses of 0.50 / 0.50 mm respectively. The support width is 120 mm. The anchoring system must be capable of withstanding the maximum allowable loads. The values indicated in the table are indicative.