

Aluminum Honeycomb Panel Technical Data

Dimensional Specification

1.1. Total thickness [mm]	20
1.2. Aluminum thickness top cover sheet [mm]	1
1.3. Aluminum thickness back cover sheet [mm]	1
1.4. Thickness tolerance [mm]	± 0,2
1.5. Weight [kg/m ²]	6,3
1.6. Standard width [mm]	1000 / 1250 / 1500
1.7. Width tolerance [mm]	0 / + 2,0
1.8. Minimum / maximum length [mm]	1000 / 4000
1.9. Length tolerance [mm]	0 / + 3,0
1.10. Core	aluminum honeycomb

Aluminum sheets

2.1. Aluminum	3000 series or 5000 series
2.2. Ultimate tensile strength, R _m [N/mm ²] ISO 6892-1:2009	159,31
2.3. Modulus of elasticity, E [N/mm ²]	35288
2.4. Anticorrosive pretreatment	Yes

Aluminum core

3.1. Aluminum alloy	3003
3.2. Compressive strength [MPa]	195
3.3. Core density [kg/m ³]	38,4
3.4. Cell size [mm]	9,5
3.5. Anticorrosive pretreatment	Yes

Mechanical properties

4.1. Moment of inertia, J [cm ⁴ /m] DIN 53293	26,9
4.2. Rigidity (theoretical value) EJ [KNcm ² /m] DIN 53293	94924
4.3. Section modulus, W [cm ³ /m] DIN 53293	25,3
4.4. Audible reduction, (<i>in house testing</i>) R _w [dB]	19,5
4.5. Acoustic insulation, (<i>in house testing</i>) R(A) [dB]	20,0
4.6. Thermal resistance, R [m ² K/W] ASTM E1530-11	0,014
4.7. Thermal conductivity, λ [W/mK] ASTM E1530-11	1,379
4.8. Aluminum thermal expansion [10 ⁻⁶ m/(m K)]	22,2
4.9. Temperature stability [°C]	-40 / +80

Fire classification

5.1. Building market: EN 13501-1	A2 – s1, d0
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