

ALUMINIUM COMPOSITE PANEL



Aluminum Composite Panel

| Panel Thickness | Standard | Unit | 2mm | 3mm | 4mm | 6mm |
|---|-------------------------|---------------------|------------------------------|------------|------------|------------|
| Thickness of Aluminium | DIN 1784 | mm | 0.3 | 0.3 | 0.3 | 0.3 |
| Aluminum thickness deviation | DIN 1784 | mm | ±0.01 | ±0.01 | ±0.01 | ±0.01 |
| Weight | | Kg/m ² | 2.92 | 3.85 | 4.76 | 6.75 |
| Tolerance in length | DIN 16927 / ISO 11833-1 | mm | - 0 / +2 | - 0 / +2 | - 0 / +2 | - 0 / +2 |
| Tolerance in width | DIN 16927 / ISO 11833-1 | mm | - 0 / +1.5 | - 0 / +1.5 | - 0 / +1.5 | - 0 / +1.5 |
| Tolerance in thickness | DIN 16927 / ISO 11833-1 | mm | ± 0.15 | ± 0.10 | ± 0.10 | ± 0.15 |
| Horizontal flatness | DIN ISO 1101 | mm | 6 | 5 | 4 | 4 |
| Longitudinal roughness | DIN ISO 1101 | mm | 6 | 5 | 5 | 5 |
| Technical Properties | | | | | | |
| Section Modulus W | DIN 53293 | cm ³ /m | 1.01 | 1.25 | 1.75 | 2.75 |
| Rigidity (Poisson's ratio $\mu = 0.3$) E.J | DIN 53293 | kNm ² /m | 0.67 | 0.14 | 0.28 | 0.63 |
| Alloy | EN 573-3 | ENAW | 1100 | | | |
| Temper of Cover Sheets | EN 515 | | H16/H18 | | | |
| Modulus of Elasticity | EN 1999 1-1 | N/mm ² | 70,000 | | | |
| Tensile Strength of Aluminium | EN 485-2 | N/mm ² | $R_m \geq 145$ | | | |
| 0.2% Proof Stress | EN 485-2 | N/mm ² | $R_{p0.2} \geq 100$ | | | |
| Elongation | EN 485-2 | % | $A_{50} \geq 2$ | | | |
| Linear Thermal Expansion | EN 1999 1-1 | mm/m°C | 2.4 at 100°C Temp difference | | | |
| Core | | | | | | |
| Polyethylene, Typ LD-PE | | g/cm ³ | 0.935 | | | |
| Surface | | | | | | |
| Lacquering | | | Fluorocarbon based (PE) | | | |
| Thickness of coating | | μm | ≥ 16 | ≥ 16 | ≥ 16 | ≥ 16 |
| Gloss (initial value) | ECCA T2 | % | 20 - 100 | | | |
| Pencil Hardness | ECCA T4 | | 2H | | | |
| Acoustical Properties | | | | | | |
| Sound Absorption Factor α_s | ISO 354 | | 0.05 | | | |
| Sound Transmission Loss R_w | ISO 717-1 | DB | 23 | 25 | 26 | 28 |
| Loss Factor d | EN ISO 6721 | | 0.0062 | 0.0072 | 0.0087 | 0.0138 |
| Thermal Properties | | | | | | |
| Thermal Resistance R | DIN 52612 | m ² K/W | 0.0036 | 0.0069 | 0.0103 | 0.0172 |
| Heat Transition Coefficient U | DIN 4108 | W/m ² K | 5.98 | 5.65 | 5.54 | 5.34 |
| Temperature Range | | °C | -50...+80 | | | |

