

TECHNICAL DATA & SPECIFICATIONS

ACP is a panel that consists of two 0.5 mm aluminum cover sheets and a 3mm POLIETILENE-filled core.

LIGHTNESS/ RIGIDITY

The composite structure the ACP results in an impressive strength-to-weight ratio, even comparing large panel sizes. Despite it's low weight, which makes the material easy to transport and handle in the factory and on site, its rigidity and high strength make the panels keep their shape and remain flat, even when exposed to extreme temperature changes.

FEATURES

Characteristics

Low weight, high rigidity,perfect flatness

Large variety of colors

Weatherproof

Vibration-damping

Can easily be folded and bent

Large panel sizes, fast installation,
pre-fabricated panels

Advantages

Low cost for substructures and fasteners,
Smooth handling on the site

Unlimited planning and design

Supplied ready to install

No additional sound-damping needed

Simple processing using conventional tools

Short construction times, adherence to schedules,
low cost

Thickness		Standards	Unit	3 mm	4 mm	6 mm
Thickness of Aluminum Layers			[mm]	0.5		
Weight			[kg/m ²]	4.5	5.5	7.3
Width			[mm]	1000 / 1250 / 1500 (1575 / 1750)		

TECHNICAL PROPERTIES

Section modulus	W	DIN 53293	[cm ³ /m]	1.25	1.75	2.75
Rigidity	E·J	DIN 53293	[kNcm ² /m]	1250	2400	5900
Alloy / Temper of Aluminum Layers		EN 573-3 EN 515		EN AW 5005A (AlMg1) H22 / H42		
Modulus of Elasticity		EN 1999 1-1	[N/mm ²]	70'000		
Tensile Strength of Aluminum		EN 485-2	[N/mm ²]	R _m ≥ 130		
0.2 % Proof Stress		EN 485-2	[N/mm ²]	R _{p0.2} ≥ 90		
Elongation		EN 485-2	[%]	Λ ₅₀ ≥ 5		
Linear Thermal Expansion		EN 1999 1-1		2.4 mm/m at 100°C temperature difference		

Core

Polyethylene, Type LDPE			[g/cm ³]	0.92		
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SURFACE

Lacquering				Coil Coating Fluorocarbon (e.g. PVDF)		
Gloss (initial value)		EN 13523-2	[%]	30-80		
Pencil Hardness		EN 13523-4		HB-F		

ACOUSTICAL PROPERTIES

Sound Absorption Factor	α _s	ISO 354		0.05		
Sound Transmission Loss	R _w	ISO 717-1	[dB]	25	26	27
Loss Factor	d	EN ISO 6721, Frequency range 100-3200 Hz		0.0072	0.0087	0.0138

THERMAL PROPERTIES

Thermal Resistance	R	DIN 52612	[m ² K/W]	0.0069	0.0103	0.0172
Thermal conductivity	λ	DIN 52612	[W/mK]	0.43	0.39	0.35