

ECON-PANEL

Technical Specifications



PHYSICAL PROPERTIES

Standard

Unit

ECON-PANEL

Panel Thickness		mm	2mm	3mm	4mm
Thickness of Aluminium	DIN 1784	mm	0.21	0.3	0.3
Aluminum thickness deviation	DIN 1784	mm	±0.02	±0.02	±0.02
Weight		kg/m ²	3	4.6	5.7
Tolerance in length	DIN 16927 / ISO 11833-1	mm	-0/+2	-0/+2	-0/+2
Tolerance in width	DIN 16927 / ISO 11833-1	mm	-0/+1.5	-0/+1.5	-0/+1.5
Tolerance in thickness	DIN 16927 / ISO 11833-1	mm	±0.15	±0.10	±0.10
Horizontal flatness	DIN ISO 1101	mm	5	3	3
Longitudinal roughness	DIN ISO 1101	mm	6	5	5

TECHNICAL PROPERTIES

Standard

Unit

ECON-PANEL

Section Modulus W	DIN 53293	cm ³ /m	1.32	1.55	1.85
Rigidity(Poisson's ratio $\mu=0.3$)E	DIN 53293	kNm ² /m	0.97	0.16	0.34
Alloy	EN 573-3	ENAW	1100		
Temper of Cover Sheets	EN 515		H18		
Modulus of Elasticity	EN 1999 1-1	N/mm ²	70000		
Tensile Strength of Aluminium	EN 485-2	N/mm ²	R _m ≥ 145		
0.2% Proof Stress	EN 485-2	N/mm ²	R _{p0.2} ≥ 115		
Elongation	EN 485-2	%	A ₅₀ ≥ 3		
Linear Thermal Expansion	EN 1999 1-1	mm/m/°C	2.4 at 100°C Temp difference		

CORE

Standard

Unit

ECON-PANEL

Polyethylene, Typ LD-PE		g/cm ³	1.27
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SURFACE PROPERTIES

Standard

Unit

Surface		
Lacquering		
Thickness of coating		μm
Gloss(intial value)	ECCA T2	%
Pencil Hardness	ECCA T4	
Toughness of coating		

ECON-PANEL

Coil Coating
Fluorocarbon based(PE)
PE ≥17
20-100
2H
2T

ACOUSTICAL PROPERTIES

Standard

Unit

Sound Absorption Factor αs	ISO 354	
Sound Transmission Loss Rw	ISO 717-1	DB
Loss Factor d	EN ISO 6721	

ECON-PANEL

0.05		
23	25	26
0.0062	0.0072	0.0087

THERMAL PROPERTIES

Standard

Unit

Thermal Resistance R	DIN 52612	m2K/W
Heat Transition Coefficient U	DIN 4108	W/m2k
Temperature Range		°C

ECON-PANEL

0.0036	0.0069	0.0103
5.98	5.65	5.54
-50...+80		

RESISTANCE PROPERTIES

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Impact strength	30kg/cm
Boiling water resistance	Boiling for 2 hours without change
Acid resistance	Immerse surface in 2% Hc1 for 24 hours without change
Alkali resistance	Immerse surface in 2% Ca(OH)2 for 24 hours without change
Oil resistance	Immerse surface in 2% engine oil for 24 hours without change
Solvent resistance	Cleaned 100 times with dimethylbenzene without change
Cleaning resistance	100 times without change
Peel strength 180 degrees	5 newton / mm