

Polycarbonate transparent

UVstabilized

If not stated otherwise, the given values result from tests which were realised using standardised specimen at room temperature. The given figures are indications only and therefore not binding. Please note the properties can be significantly affected by the tooling, the processing conditions as well as by the tolerances which are given due to the material.

Mechanical characteristics

	Unit	Standard	Data
Tensile Modulus (1mm/min)	MPa	ISO 527-1/-2	2400
Yield Stress (50mm/min)	MPa	ISO 527-1/-2	66
Charpy impact strength (23°C)	kJ/m ²	ISO 179/1eU	N
Charpy impact strength (-30°C)	kJ/m ²	ISO 179/1eU	N
Charpy notched impact strength (23°C)	kJ/m ²	ISO 179/1eA/7391	70
Charpy notched impact strength (-30°C)	kJ/m ²	ISO 179/1eA/7391	16
Strain at break (50mm/min)	%	ISO 527-1/-2	100
Nominal strain at break (50mm/min)	%	ISO 527-1/-2	>50
Ball indentation hardness	MPa	ISO 2039	115
Tensile creep modulus (1h)	MPa	ISO 899-1	2200
Tensile creep modulus (1000h)	MPa	ISO 899-1	1900

Thermal characteristics

	Unit	Standard	Data
Glass transition temperature(10°C/min)	°C	ISO 11357-1/ -2	146
Vicat softening temperature (B50)	°C	ISO 306	146
Temperature of deflection under load (1,8MPa)	°C	ISO 75-1/-2	128
Temperature of deflection under load (0,45MPa)	°C	ISO 75-1/-2	140
Coefficient of linear thermal expansion (parallel)	10 ⁻⁴ /K	ISO 11359-1/ -2	0,65
Coefficient of linear thermal expansion (transverse)	10 ⁻⁴ /K	ISO 11359-1/ -2	0,65

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Fire characteristics

	Unit	Standard	Data
Burning behavior UL94 (1,5mm)		IEC 60695-11 -10	HB
Burning behavior UL94 (3mm)		IEC 60695-11 -10	V-2
Burning behavior UL94 (6mm)		IEC 60695-11 -10	V-0
Glow wire test (1,0-2,0mm)	°C	IEC 60695-2-12	850
Glow wire test (3,0-4,0mm)	°C	IEC 60695-2-12	960

Electrical characteristics

	Unit	Standard	Data
Volume resistivity	Ohm*m	IEC 60093	>10 ¹³
Surface resistivity	Ohm	IEC 60093	>10 ¹⁵
Relative permittivity (100Hz)		IEC 60250	3,1
Relative permittivity (1MHz)		IEC 60250	3
Dissipation factor (100Hz)	10 ⁻⁴	IEC 60250	8
Dissipation factor (1MHz)	10 ⁻⁴	IEC 60250	95
Electrical strength	kV/mm	IEC 60243-1	36
Comparative tracking index		IEC 60112	250

Physical characteristics

	Unit	Standard	Data
Water absorption, saturation value (Water at 23°C)	%	ISO 62	0,3
Water absorption, equilibrium v. (23°C, 50% r. h.)	%	ISO 62	0,12
Density	g/cm ³	ISO 1183	1,2

Optical characteristics

	Unit	Standard	Data
Refractive index (Procedure A)		ISO 489	1,587
Haze for transparent materials (3mm)	%	ISO 14782	<0,8
Luminous transmittance (1mm)	%	ISO 13468-2	89
Luminous transmittance (2mm)	%	ISO 13468-2	88
Luminous transmittance (3mm)	%	ISO 13468-2	88