

Technical datasheet

PC FR (polycarbonate) flame retardant

Example of application			
<ul style="list-style-type: none"> › components/ cladding to meet particular requirements in regards to fire performance (UL94/EN45545-2/FAR25.853) › lighting fixtures on rail vehicles 			
Advantage		Disadvantages	
<ul style="list-style-type: none"> › good transparency (about 85%) › excellent fire classification › extremely impact resistant 		<ul style="list-style-type: none"> › moisture ingress 	
Basic information		Specification	
Format		Sheets: 2, 3 and 5 mm available in 2 m x 3 m	
Physical properties	Standard term/Specification*	Unit	Testing method
Density	1.2	g/cm ³	DIN EN ISO 1183
Moisture ingress	0.3	%	DIN EN ISO 63
Mechanical properties	Standard term/Specification*	Unit	Testing method
Tensile strength	> 60	N/mm ²	DIN EN ISO 527
Elongation at break	6	%	DIN EN ISO 527
E-module	2.400	N/mm ²	DIN EN ISO 527
Notch toughness	fracture free	kJ/m ²	DIN 53453
Rockwellhardness	n.sp.	n.sp.	DIN EN ISO 2039
Thickness	n.sp.	µm	
Thermal properties	Standard term/Specification*	Unit	Testing method
Thermal conductivity	0.2	W/(m·K)	DIN 52612
Linear thermal expansion coefficient	0.7	K ⁻¹ ·10 ⁻⁴	DIN 53752
	1.4	mm	At initial length of 1.000 mm and a temperature difference of 20 °C
Min. operating temperature, short-term	-100	°C	
Max. operating temperature, long-term	120	°C	
Electrical properties	Standard term/Specification*	Unit	Testing method
Resistance	10 ¹⁴	Ω·cm	DIN IEC 60093
Outer surface coefficient	10 ¹⁶	Ω	ASTM D257
Puncture resistance	34	kV/mm	IEC 60243
Legend			
n.sp. = not specified			

*higher specification on request; the guide values / information refer to except for layer thickness, the carrier material.

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transparent
plastics