

# PERSPEX®re

## TECHNICAL DATA SHEET

<b>GENERAL</b>			
Property	Method	Unit	PERSPEX®re
Density	ISO 1183-1	g/cm <sup>3</sup>	1.19
Water absorption 24h/23°C	ISO 62 Method 1	%	0.2
Rockwell Hardness	ISO 2039-2	M-Scale	105
<b>MECHANICAL</b>			
Property	Method	Unit	PERSPEX®re
Tensile strength	ISO 527-2	MPa	75
Elongation at break	ISO 527-2	%	6
Tensile modulus	ISO 527-2	MPa	3300
Flexural strength	ISO 178	MPa	125
Flexural modulus	ISO 178	MPa	3000
Impact strength Charpy unnotched	ISO 179-1	kJ/m <sup>2</sup>	18
Impact strength Charpy notched	ISO 179-1	kJ/m <sup>2</sup>	2
<b>OPTICAL</b>			
Property	Method	Unit	PERSPEX®re
Light transmission	ISO 13468-1	%	93
Refractive index	ISO 489	n <sup>D</sup> <sub>20</sub>	1.492
<b>THERMAL</b>			
Property	Method	Unit	PERSPEX®re
Vicat temperature (B 50)*	ISO 306	°C	110
Heat deflection temperature (A)	ISO 75-2	°C	105
Specific heat capacity	ISO 3146-C-60°C	J/gK	2.16
Linear thermal expansion α	ISO 11359-2	mm/m °C	0.07
Thermal conductivity	DIN 52612	W/mK	0.19
Service temperature continuous use		°C	80
Max. temperature short term use		°C	90
Degradation temperature		°C	>280
Sheet forming temperature range		°C	140 – 190
<b>ELECTRICAL</b>			
Property	Method	Unit	PERSPEX®re
Surface resistivity	IEC 60093	Ω	>10 <sup>14</sup>
Volume resistivity	IEC 60093	Ω x m	>10 <sup>15</sup>
Electrical strength	IEC 60243-1	kV/mm	10
Dielectric strength	IEC 60243-1	kV/mm	30
Dielectrical dissipation factor 50 Hz	DIN 53483-2		0.06
Dielectrical dissipation factor 1 KHz	DIN 53483-2		0.04
Dielectrical dissipation factor 1 MHz	DIN 53483-2		0.02
Relative permittivity 50 Hz	DIN 53483-2		2.7
Relative permittivity 1 KHz	DIN 53483-2		3.1
Relative permittivity 1 MHz	DIN 53483-2		2.7

\* = Pre-treatment: 16 h at 80°C

Note: These technical data of our products are typical ones; the actually measured values are subject to production variations.