

Biplex[®] - Technical data sheet

PHYSICAL PROPERTIES

Properties	Method	Units	PP*
Specific gravity PP	ISO 1183	g/cm ³	0.907
Water absorption	ISO 62	%	0.02

MECHANICAL PROPERTIES

Properties	Method	Units	PP*
Tensile strength (50 mm/min)	ISO 527	MPa	38
Elongation at break (50 mm/min)	ISO 527	%	800
Flexural modulus	ISO 178	MPa	1250
Impact strength Izod (23°C)	ISO 180	kJ/m ²	80
Shore D hardness	ISO 868	-	66

MECHANICAL PROPERTIES

Properties	Method	Units	Biplex
Compression strength 2,1mm/350g	internal IPB	N/cm ²	min 37
at maximum 2,0mm/400g	internal IPB	N/cm ²	min. 14
3,0mm/650g	internal IPB	N/cm ²	min. 55
4,5mm/1000g	internal IPB	N/cm ²	min. 144

THERMAL PROPERTIES

Properties	Method	Units	PP*
Coefficient of linear expansion	ASTM D696	mm/m°C	0.18
Specific Heat	DSC	J/g°C	1.68
Heat deflection temp. (0,46 MPa)	ISO 75	°C	78
Heat deflection temp. (1,82 MPa)	ISO 75	°C	52
Vicat softening point (1 kg) (10N)	ISO 306	°C	148
Vicat softening point (5 kg) (50N)	ISO 306	°C	78

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OPTICAL PROPERTIES

Properties	Method	Units	Biplex
<i>Light transmission</i> 2,0mm/400g	<i>internal IPB</i>	%	58
<i>(clear sheet)</i> 2,5mm/450g	<i>internal IPB</i>	%	53
3,0mm/500g	<i>internal IPB</i>	%	51
4,0mm/1000g	<i>internal IPB</i>	%	37

ELECTRICAL PROPERTIES

Properties	Method	Units	PP*
<i>Surface resistivity</i>	<i>ASTMD257</i>	Ω	<i>ca. 10¹³</i>
<i>Dielectric constant (at 1 MHz)</i>	<i>ASTMD150</i>	-	2.25
<i>Dissipation factor (tg δ at 1MHz)</i>	<i>ASTMD150</i>	-	<i>< 5 x 10⁻⁴</i>
<i>Dielectric strength (500V/sec)</i>	<i>ASTMD149</i>	<i>kV/mm</i>	70

PP = test results based upon raw material*

Temporary and limited list made to our best knowledge at this time.

The technical data concerning our products are not binding and are given for guidance only.

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