

**Biplex<sup>®</sup> - Technical data sheet**

**PHYSICAL PROPERTIES**

Properties	Method	Units	PP*
Specific gravity PP	ISO 1183	g/cm <sup>3</sup>	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 <sup>2</sup>	80
Shore D hardness	ISO 868	-	66

**MECHANICAL PROPERTIES**

Properties	Method	Units	Biplex
Compression strength 2,1mm/350g	internal IPB	N/cm <sup>2</sup>	min 37
at maximum 2,0mm/400g	internal IPB	N/cm <sup>2</sup>	min. 41
3,0mm/400g	internal IPB	N/cm <sup>2</sup>	min. 30
3,0mm/650g	internal IPB	N/cm <sup>2</sup>	min. 80
4,5mm/1000g	internal IPB	N/cm <sup>2</sup>	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>	$\Omega$	<i>ca. 10<sup>13</sup></i>
<i>Dielectric constant (at 1 MHz)</i>	<i>ASTMD150</i>	-	2,25
<i>Dissipation factor (tg <math>\delta</math> at 1MHz)</i>	<i>ASTMD150</i>	-	<i>&lt; 5 x 10<sup>-4</sup></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.*

*For more specific information, please feel free to contact our technical department :*

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