

Biprint® - 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. 41
3,0mm/400g	internal IPB	N/cm ²	min. 30
3,0mm/650g	internal IPB	N/cm ²	min. 80
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
Light transmission 2,0mm/400g	internal IPB	%	58
(clear sheet) 2,5mm/450g	internal IPB	%	53
3,0mm/500g	internal IPB	%	51
4,0mm/1000g	internal IPB	%	37

ELECTRICAL PROPERTIES

Properties	Method	Units	PP*
Surface resistivity	ASTMD257	Ω	ca. 10^{13}
Dielectric constant (at 1 MHz)	ASTMD150	-	2,25
Dissipation factor (tg δ at 1MHz)	ASTMD150	-	$< 5 \times 10^{-4}$
Dielectric strength (500V/sec)	ASTMD149	kV/mm	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.