Biplex® - Technical data sheet

PHYSICAL PROPERTIES			
Properties	**Method**	**Units**	**PP***
Specific gravity PP	*ISO 1183*	*g/cm³*	*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/m²*	*80*
Shore D hardness	*ISO 868*	*-*	*66*

MECHANICAL PROPERTIES				
Properties		**Method**	**Units**	**Biplex**
Compression strength	*2,1mm/350g*	*internal IPB*	*N/cm²*	*min 37*
at maximum	*2,0mm/400g*	*internal IPB*	*N/cm²*	*min. 41*
	3,0mm/400g	*internal IPB*	*N/cm²*	*min. 30*
	3,0mm/650g	*internal IPB*	*N/cm²*	*min. 80*
	4,5mm/1000g	*internal IPB*	*N/cm²*	*min. 144*
	5,0mm/1050g	*internal IPB*	*N/cm²*	*min. 63*

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

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