

Bicell[®] - 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	Bicell
Compression strength 3,0mm/600g	Internal IPB	N/cm ²	>35
3,5mm/800g	Internal IPB	N/cm ²	>95
3,5mm/1000g	Internal IPB	N/cm ²	>148
4,0mm/1250g	Internal IPB	N/cm ²	>200
4,0mm/1500g	Internal IPB	N/cm ²	>200

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	Bicell
Light transmission (1500g/m ²)	Internal IPB	%	40

ELECTRICAL PROPERTIES

Properties	Method	Units	PP*
Surface resistivity	ASTMD257	Ω	ca. 10^{13}
Dielectric constant (at 1 MHz)	ASTMD150	-	2,25
Dissipation factor ($\text{tg } \delta$ 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.

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

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