



Physical properties of TPX® RT18 & RT18XB

Highly recommended for injection moulding, possible use for film and fibre extrusion

Physical Properties	Item	Test Condition	Unit	Test Method	Value	
Basic Properties	Density		kg/m ³	ASTM-D1505	833	
	MFR	P=5kg, 260°C	g/10 min	ASTM-D1238	26	
	Melting Point	Peak Temp.	°C	JIS-K7121 (DSC method)	233	
	Water Absorption		%	ASTM-D570	<0.01	
Thermal Properties	Vicat Softening Point		°C	ASTM-D1525	174	
	Heat Distortion Temperature (HDT)	0.43 MPa	°C	ASTM-D648	127	
	Expansion Coefficient		10 ⁻⁶ K ⁻¹	ASTM-E831	1.17x10 ⁻⁴	
Mechanical Properties @ 23°C	Yield Stress		MPa	ASTM-D638	30	
	Tensile Strength		MPa	ASTM-D638	25	
	Elongation at Break		%	ASTM-D638	12	
	Tensile Modulus		MPa	ASTM-D638	1900	
	Flexural Modulus		MPa	ASTM-D790	1600	
	Flexural Strength		MPa	ASTM-D790	46	
	Izod Impact Strength	With Notch		J/m	ASTM-D256	20
		Without Notch		KJ/m ²	ASTM-D256	9
Rockwell Hardness	R Scale		-	ASTM-D785	87	
Optical Properties	Haze		%	ASTM-D1003	0.7	
	Transmittance		%	ASTM-D1003	94	
	Refractive Index		-	ASTM-D542	1.46	
Electrical Properties	Volume Resistivity		Ω . cm	ASTM-D257	>10 ¹⁶	
	Dielectric Breakdown Voltage		kV/mm	ASTM-D149	65	
	Dielectric Constant		-	ASTM-D150	2.1	
Moulding Properties	Spiral flow	Mould temp. 73°C	cm	MCI method 1	51	
	Mould shrinkage	Longitudinal	%	MCI method 2	1.5	
		Transverse	%	MCI method 2	1.2	

Notes:

MCI method 1 moulding temp: 310~330°C (depending on the grade)
MCI method 2 moulding temp: 260~280°C (depending on the grade)

All information and technical data are given as a guide only. Although every effort has been made to ensure that the information is correct, no warranty is given as to its completeness or accuracy.

Goodfellow Cambridge Limited
Ermine Business Park
Huntingdon, Cambridgeshire PE29 6WR
Tel: +44 1480 424 800
Fax: +44 1480 424 900
Email: tpx@goodfellow.com
Web: www.goodfellow.com