Physical properties of TPX® DX845

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

Physical Properties	Item	Test Condition	Unit	Test Method	Value
Basic Properties	Density		kg/m³	ASTM-D1505	833
	MFR	P=5kg, 260°C	g/10 min	ASTM-D1238	9
	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	47
	Izod Impact Strength	With Notch	J/m	ASTM-D256	20
		Without Notch	KJ/m²	ASTM-D256	10
	Rockwell Hardness	R Scale	-	ASTM-D785	87
Optical Properties	Haze		%	ASTM-D1003	1.1
	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	50
	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)

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