POCAN® S 1506 000000

Polybutylene Terephthalate

LANXESS GmbH

Message:

PBT, non-reinforced, injection molding, extrusion, improved impact strength

General Information	
UL YellowCard	E245249-474057
Features	Impact resistance, good
Agency Ratings	EC 1907/2006 (REACH)
Processing Method	Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.20	g/cm³	ISO 1183
Apparent Density	0.70	g/cm³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	14.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 2577
Vertical flow direction: 260°C, 2.00mm [1]	1.8	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm [2]	0.40	%	ISO 2577
Flow direction: 260°C, 2.00mm [3]	2.0	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm [4]	0.30	%	ISO 2577
Water Absorption			ISO 62
Saturated, 23°C	0.40	%	ISO 62
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness	70.0	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	1700	MPa	ISO 527-2/1
Tensile Stress (Yield, 23°C)	35.0	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	4.5	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	> 50	%	ISO 527-2/50
Tensile Creep Modulus			ISO 899-1
1 hr	1400	MPa	ISO 899-1
1000 hr	700	MPa	ISO 899-1
Flexural Modulus [5] (23°C)	1600	MPa	ISO 178/A
Flexural Stress			ISO 178/A
3.5% strain, 23°C	50.0	MPa	ISO 178/A
23°C [6]	55.0	MPa	ISO 178/A

Flexural Strain at Flexural Strength [7] (23°C)	6.0	%	ISO 178/A
Electrolytical Corrosion (23°C)	A 1		IEC 60426
ISO Shortname	PBT, GHPR, 11-020		ISO 7792
Residual Moisture Content	0.0 - 0.020	%	Karl Fisher
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	25	kJ/m^2	ISO 179/1eA
23°C	75	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		ISO 179/1eU
23°C	No Break		ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-30°C	20	kJ/m^2	ISO 180/1A
23°C	70	kJ/m^2	ISO 180/1A
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	No Break		ISO 180/1U
23°C	No Break		ISO 180/1U
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-30°C, peak energy to power	90.0	J	ISO 6603-2
23°C, energy to peak power	110	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, not annealed	90.0	°C	ISO 75-2/B
1.8 MPa, not annealed	55.0	°C	ISO 75-2/A
Vicat Softening Temperature	116	°C	ISO 306/B120
Ball Pressure Test (180°C)	Pass		IEC 60695-10-2
Melting Temperature [8]	225	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 55°C	1.3E-4	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	1.3E-4	cm/cm/°C	ISO 11359-2
Thermal Conductivity (23°C)	0.22	W/m/K	ISO 8302
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity (23°C)	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	28	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	3.20		IEC 60250
23°C, 1 MHz	3.10		IEC 60250
Dissipation Factor			IEC 60250
23°C, 100 Hz	3.0E-3		IEC 60250
23°C, 1 MHz	0.017		IEC 60250
Comparative Tracking Index (Solution A)	600	V	IEC 60112

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.800 mm	HB		UL 94
1.60 mm	HB		UL 94
Glow Wire Flammability Index (2.00 mm)	650	°C	IEC 60695-2-12
Oxygen Index [9]	22	%	ISO 4589-2
Injection	Nominal Value	Unit	Test Method
Drying Temperature - Circulation Dryer	120	°C	
Drying Time - Circulation Dryer	4.0 - 8.0	hr	
Processing (Melt) Temp	250 - 270	°C	
Mold Temperature	80.0 - 100	°C	
NOTE			
1.	60x60x2mm, 80°C MT, 600 bar		
2.	60x60x2mm		
3.	60x60x2mm, 80°C MT, 600 bar		
4.	60x60x2mm		
5.	2.0 mm/min		
6.	2.0 mm/min		
7.	2 mm/min		
8.	10°C/min		
9.	Procedure A		

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

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