

POCAN® B 1700 000000

Polybutylene Terephthalate

LANXESS GmbH

Message:

PBT, non-reinforced, extrusion, food contact

General Information			
Features	Compliance of Food Exposure		
Agency Ratings	EC 1907/2006 (REACH)		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.30	g/cm ³	ISO 1183
Apparent Density	0.80	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	8.00	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Vertical flow direction: 260°C, 3.00mm ¹	1.6	%	ISO 2577
Vertical flow direction: 150°C, 1 hour, 3.00mm ²	0.50	%	ISO 2577
Flow direction: 260°C, 3.00mm ³	1.6	%	ISO 2577
Flow direction: 150°C, 1 hour, 3.00mm ⁴	0.50	%	ISO 2577
Water Absorption			ISO 62
Saturated, 23°C	0.50	%	ISO 62
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Viscosity Number (Reduced Viscosity)	158.0	ml/g	ISO 1628
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	2600	MPa	ISO 527-2/1
Tensile Stress (Yield, 23°C)	55.0	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	4.0	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	> 50	%	ISO 527-2/50
Flexural Stress			ISO 178/A
3.5% strain, 23°C	75.0	MPa	ISO 178/A
23°C ⁵	85.0	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁶ (23°C)	6.0	%	ISO 178/A
ISO Shortname	PBT, G, 13-030		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	< 10	kJ/m ²	ISO 179/1eA
23°C	< 10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU

-30°C	230	kJ/m ²	ISO 179/1eU
23°C	No Break		ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-30°C	< 10	kJ/m ²	ISO 180/1A
23°C	< 10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	180	kJ/m ²	ISO 180/1U
23°C	No Break		ISO 180/1U
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-30°C	16.0	J	ISO 6603-2
23°C	23.0	J	ISO 6603-2
Multi-Axial Instrumented Impact Peak Force			ISO 6603-2
-30°C	3930	N	ISO 6603-2
23°C	3880	N	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	140	°C	ISO 75-2/B
1.8 MPa, not annealed	60.0	°C	ISO 75-2/A
8.0 MPa, not annealed	45.0	°C	ISO 75-2/C
Vicat Softening Temperature	170	°C	ISO 306/B120
Melting Temperature ⁷	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
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)	30	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	3.40		IEC 60250
23°C, 1 MHz	3.20		IEC 60250
Dissipation Factor			IEC 60250
23°C, 100 Hz	1.5E-3		IEC 60250
23°C, 1 MHz	0.020		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
Injection	Nominal Value	Unit	Test Method
Drying Temperature - Circulation Dryer	120	°C	

Drying Time - Circulation Dryer	4.0 - 8.0	hr
NOTE		
1.	150x105x3mm, 80°C MT, 600 bar	
2.	150x105x3mm	
3.	150x105x3mm, 80°C MT, 600 bar	
4.	150x105x3mm	
5.	2.0 mm/min	
6.	2 mm/min	
7.	10°C/min	

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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

