

POCAN® KU 1-7301 000000

Polybutylene Terephthalate

LANXESS Corporation

Message:

PBT, non-reinforced, injection molding, food contact

General Information			
UL YellowCard	E245249-100129045		
Features	Compliance of Food Exposure		
Agency Ratings	EC 1907/2006 (REACH)		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.31	g/cm ³	ISO 1183
Apparent Density	0.80	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	60.0	cm ³ /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	0.30	%	ISO 2577
Flow direction: 260°C, 2.00mm ³	1.8	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.30	%	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)	105.0	ml/g	ISO 1628
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	120	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	2700	MPa	ISO 527-2/1
Tensile Stress (Yield, 23°C)	60.0	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	9.0	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	> 10	%	ISO 527-2/50
Tensile Creep Modulus			ISO 899-1
1 hr	2400	MPa	ISO 899-1
1000 hr	1400	MPa	ISO 899-1
Flexural Modulus ⁵ (23°C)	2650	MPa	ISO 178/A
Flexural Stress			ISO 178/A
3.5% strain, 23°C	80.0	MPa	ISO 178/A
23°C ⁶	90.0	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, GR, 09-030		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	150	kJ/m ²	ISO 179/1eU
23°C	180	kJ/m ²	ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-40°C	< 10	kJ/m ²	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	90	kJ/m ²	ISO 180/1U
23°C	130	kJ/m ²	ISO 180/1U
Multi-Axial Instrumented Impact Energy (23°C, Energy to Peak Force)	110	J	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	65.0	°C	ISO 75-2/A
Vicat Softening Temperature	180	°C	ISO 306/B120
Ball Pressure Test (190°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	1.1E-4	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	1.1E-4	cm/cm/°C	ISO 11359-2
Thermal Conductivity (23°C)	0.25	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)	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	0.019		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)	750	°C	IEC 60695-2-12
Oxygen Index ⁹	24	%	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		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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

