

POCAN® S 7926 000000

Polybutylene Terephthalate

LANXESS GmbH

Message:

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

General Information	
UL YellowCard	E245249-474060
Additive	Flame Retardant
Features	Flame Retardant
	Good Impact Resistance
Processing Method	Extrusion
	Injection Molding
Multi-Point Data	Shear Modulus vs. Temperature (ISO 11403-1)
	Viscosity vs. Shear Rate (ISO 11403-2)

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.37	g/cm ³	ISO 1183
Apparent Density	0.80	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (270°C/5.0 kg)	40.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow : 250°C, 2.00 mm ¹	2.0	%	
Across Flow : 120°C, 4 hr, 2.00 mm ²	0.30	%	
Flow : 250°C, 2.00 mm ³	2.1	%	
Flow : 120°C, 4 hr, 2.00 mm ⁴	0.30	%	
Water Absorption			ISO 62
Saturation, 23°C	0.40	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	120	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	2400	MPa	ISO 527-2/1
Tensile Stress (Yield, 23°C)	40.0	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	3.0	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	> 10	%	ISO 527-2/50
Tensile Creep Modulus			ISO 899-1
1 hr	2300	MPa	

1000 hr	1500	MPa	
Flexural Modulus ⁵ (23°C)	2300	MPa	ISO 178/A
Flexural Stress			ISO 178/A
3.5% Strain, 23°C	65.0	MPa	
23°C ⁶	70.0	MPa	
Flexural Strain at Flexural Strength (23°C) ⁷	5.0	%	ISO 178/A
Halving Interval			IEC 60216
Electric Strength	13.0	°C	
Tensile Impact Strength	5.5	°C	
Tensile Strength	13.0	°C	
Temperature Index			IEC 60216
Electric Strength, 20000 hr	140	°C	
Tensile Impact Strength, 20000 hr	110	°C	
Tensile Strength, 20000 hr	140	°C	
Electrolytical Corrosion (23°C)	A 1		IEC 60426
ISO Shortname	PBT, GFHMPPR, 11-020; ISO 1043-PBT FR (17)		ISO 7792
Residual Moisture Content	0.0 to 0.020	%	Karl Fisher
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	< 10	kJ/m ²	
23°C	12	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength			ISO 180/1A
-40°C	< 10	kJ/m ²	
-30°C	< 10	kJ/m ²	
23°C	< 10	kJ/m ²	
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	110	kJ/m ²	
23°C	No Break		
Multi-Axial Instrumented Impact Energy (23°C, Energy to Peak Force)	80.0	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	130	°C	ISO 75-2/B
1.8 MPa, Unannealed	60.0	°C	ISO 75-2/A
8.0 MPa, Unannealed	47.0	°C	ISO 75-2/C
Vicat Softening Temperature	160	°C	ISO 306/B120
Ball Pressure Test (190°C)	Pass		IEC 60695-10-2
Melting Temperature ⁸	225	°C	ISO 11357-3
CLTE			ISO 11359-2

Flow : 23 to 55°C	1.1E-4	cm/cm/°C	
Transverse : 23 to 55°C	1.2E-4	cm/cm/°C	
Thermal Conductivity (23°C)	0.25	W/m/K	ISO 8302
RTI Elec	125	°C	UL 746
RTI Imp	110	°C	UL 746
RTI Str	125	°C	UL 746
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
Electric Strength (23°C, 1.00 mm)	30	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	3.20		
23°C, 1 MHz	3.10		
Dissipation Factor			IEC 60250
23°C, 100 Hz	1.5E-3		
23°C, 1 MHz	0.015		
Comparative Tracking Index (Solution A)	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.400 mm)	V-0		UL 94
Glow Wire Flammability Index (0.800 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
0.800 mm	700	°C	
1.60 mm	700	°C	
3.00 mm	700	°C	
Oxygen Index ⁹	30	%	ISO 4589-2
Injection	Nominal Value	Unit	Test Method
Drying Temperature - Circulation Dryer	120	°C	
Drying Time - Circulation Dryer	4.0 to 8.0	hr	
Processing (Melt) Temp	240 to 260	°C	
Mold Temperature	80.0 to 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		

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