

POCAN® T 7391 000000

Polybutylene Terephthalate + PET

LANXESS GmbH

Message:

PBT+PET, 45 % glass fibers, injection molding, improved surface finish, increased temperature peak load

General Information			
UL YellowCard	E245249-474063		
Filler / Reinforcement	Glass Fiber,45% Filler by Weight		
Features	Good Surface Finish		
	Medium Heat Resistance		
Processing Method	Injection Molding		
Multi-Point Data	Creep Modulus vs. Time (ISO 11403-1)		
	Isochronous Stress vs. Strain (ISO 11403-1)		
	Isothermal Stress vs. Strain (ISO 11403-1)		
	Secant Modulus vs. Strain (ISO 11403-1)		
	Shear Modulus vs. Temperature (ISO 11403-1)		
	Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.69	g/cm ³	ISO 1183
Apparent Density	0.80	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	30.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow : 270°C, 2.00 mm ¹	0.80	%	
Across Flow : 120°C, 4 hr, 2.00 mm ²	0.10	%	
Flow : 270°C, 2.00 mm ³	0.20	%	
Flow : 120°C, 4 hr, 2.00 mm ⁴	0.10	%	
Water Absorption			ISO 62
Saturation, 23°C	0.30	%	
Equilibrium, 23°C, 50% RH	0.10	%	
Viscosity Number (Reduced Viscosity)	80.0	ml/g	ISO 1628
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	250	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	16000	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	160	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	1.9	%	ISO 527-2/5

Tensile Creep Modulus			ISO 899-1
1 hr	16500	MPa	
1000 hr	15000	MPa	
Flexural Modulus ⁵ (23°C)	15500	MPa	ISO 178/A
Flexural Stress ⁶ (23°C)	260	MPa	ISO 178/A
Flexural Strain at Flexural Strength (23°C) ⁷	2.1	%	ISO 178/A
Halving Interval			IEC 60216
Electric Strength	10.2	°C	
Tensile Impact Strength	13.5	°C	
Tensile Strength	10.2	°C	
Temperature Index			IEC 60216
Electric Strength, 20000 hr	155	°C	
Tensile Impact Strength, 20000 hr	150	°C	
Tensile Strength, 20000 hr	155	°C	
Electrolytical Corrosion (23°C)	A 1		IEC 60426
ISO Shortname	PBT+PET, GHMR, 09-160, GF45		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	< 10	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	65	kJ/m ²	
23°C	60	kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-30°C	< 10	kJ/m ²	
23°C	< 10	kJ/m ²	
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	60	kJ/m ²	
23°C	55	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	225	°C	ISO 75-2/B
1.8 MPa, Unannealed	205	°C	ISO 75-2/A
Vicat Softening Temperature	210	°C	ISO 306/B120
Ball Pressure Test (220°C)	Pass		IEC 60695-10-2
Melting Temperature ⁸	225 to 250	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow : 23 to 55°C	2.0E-5	cm/cm/°C	
Transverse : 23 to 55°C	8.0E-5	cm/cm/°C	
Thermal Conductivity (23°C)	0.27	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
Electric Strength (23°C, 1.00 mm)	28	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	4.30		
23°C, 1 MHz	4.20		
Dissipation Factor			IEC 60250
23°C, 100 Hz	2.0E-3		
23°C, 1 MHz	0.014		
Comparative Tracking Index (Solution A)	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.800 mm	HB		
1.60 mm	HB		
Glow Wire Flammability Index (2.00 mm)	750	°C	IEC 60695-2-12
Oxygen Index ⁹	21	%	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	260 to 280	°C	
Mold Temperature	80.0 to 100	°C	
NOTE			
1.	60x60x2mm, 90°C MT, 600 bar		
2.	60x60x2mm		
3.	60x60x2mm, 90°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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