

POCAN® T 7391 POS151 900044

Polybutylene Terephthalate + PET

LANXESS GmbH

Message:

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

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 45% filler by weight		
Additive	UV stabilizer		
Features	Excellent appearance		
Forms	Particle		
Processing Method	Injection molding		
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 294-4
Vertical flow direction: 270°C, 2.00mm ¹	0.80	%	ISO 294-4
Vertical flow direction: 120°C, 2 hours, 2.00mm ²	0.10	%	ISO 294-4
Flow direction: 270°C, 2.00mm ³	0.20	%	ISO 294-4
Flow direction: 120°C, 2 hours, 2.00mm ⁴	0.10	%	ISO 294-4
Water Absorption			ISO 62
Saturated, 23°C	0.30	%	ISO 62
Equilibrium, 23°C, 50% RH	0.10	%	ISO 62
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	ISO 899-1
1000 hr	15000	MPa	ISO 899-1
Flexural Modulus ⁵ (23°C)	15500	MPa	ISO 178/A
Flexural Stress ⁶ (23°C)	260	MPa	ISO 178
Flexural Strain at Flexural Strength (23°C) ⁷	2.1	%	
Halving Interval			IEC 60216
-- ⁸	13.5	°C	IEC 60216

-- 9	10.2	°C	IEC 60216
-- 10	10.2	°C	IEC 60216
Temperature index ¹¹			IEC 60216
Electric Strength	155		IEC 60216
Tensile Impact Strength	150		IEC 60216
Tensile Strength	155		IEC 60216
Electrolytical Corrosion	A 1		IEC 60426
ISO Shortname	PBT+PET, GHLMR, 09-160, GF45		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	65	kJ/m ²	ISO 179/1eU
23°C	60	kJ/m ²	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
	55		
Unnotched Izod Impact Strength (23°C)	60	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	225	°C	ISO 75-2/B
1.8 MPa, not annealed	205	°C	ISO 75-2/A
8.0 MPa, not annealed	150	°C	ISO 75-2/C
Vicat Softening Temperature	210	°C	ISO 306/B120
Ball Pressure Test (220°C)	Pass		IEC 60695-10-2
Melting Temperature ¹²	225 - 250	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 55°C	2.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	8.0E-5	cm/cm/°C	ISO 11359-2
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
Dielectric Strength (23°C, 1.00 mm)	28	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	4.30		IEC 60250
23°C, 1 MHz	4.20		IEC 60250

Dissipation Factor			IEC 60250
23°C, 100 Hz	2.0E-3		IEC 60250
23°C, 1 MHz	0.014		IEC 60250
Comparative Tracking Index (Solution A)	250	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 ¹³	21	%	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	260 - 280	°C	
Mold Temperature	80.0 - 100	°C	
NOTE			
1.	60x60x2; MT 90°C; 600 Bar		
2.	60x60x2		
3.	60x60x2; MT 90°C; 600 Bar		
4.	60x60x2		
5.	2.0 mm/min		
6.	2.0 mm/min		
7.	Pull Rate: 2 mm/min; 50% RH		
8.	Tensile Impact Strength		
9.	Electric Strength		
10.	Tensile Strength		
11.	20000 h		
12.	10°C/min		
13.	Procedure A		

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