POCAN® B 3215 000000

Polybutylene Terephthalate

LANXESS GmbH

Message:

PBT, 10 % glass fibers, injection molding

General Information			
UL YellowCard	E245249-100586882		
Filler / Reinforcement	Glass fiber reinforced material, 10% filler by weight		
Agency Ratings	EC 1907/2006 (REACH)		
Processing Method	Injection molding		
Multi-Point Data	Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density (23°C)	1.38	g/cm³	ISO 1183
Apparent Density	0.70	g/cm³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	30.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Vertical flow direction: 260°C, 2.00mm [1]	1.1	%	ISO 294-4
Vertical flow direction: 120°C, 2 hours, 2.00mm [2]	0.10	%	ISO 294-4
Flow direction: 260°C, 2.00mm [3]	0.90	%	ISO 294-4
Flow direction: 120°C, 2 hours, 2.00mm [4]	0.10	%	ISO 294-4
Water Absorption			ISO 62
Saturated, 23°C	0.40	%	ISO 62
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness	150	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
23°C	4750	MPa	ASTM D638
23°C	4900	MPa	ISO 527-2/1
Tensile Strength			
Fracture, 23°C	95.1	MPa	ASTM D638
Fracture, 23°C	90.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	4.0	%	ISO 527-2/5
Flexural Modulus			
23°C	3990	MPa	ASTM D790
23°C [5]	4600	MPa	ISO 178/A
Flexural Strength			
23°C	138	MPa	ASTM D790

3.5% strain [6]	135	MPa	ISO 178/A
23°C [7]	145	MPa	ISO 178
Flexural Strain at Flexural Strength (23°C) [8]	5.1	%	
Halving Interval			IEC 60216
-- [9]	9.3	°C	IEC 60216
-- [10]	11.4	°C	IEC 60216
-- [11]	14.0	°C	IEC 60216
Temperature index [12]			IEC 60216
Electric Strength	160		IEC 60216
Tensile Impact Strength	140		IEC 60216
Tensile Strength	150		IEC 60216
Electrolytical Corrosion	A 1		IEC 60426
ISO Shortname	PBT, GHMR, 09-050, GF10		ISO 7792
Residual Moisture Content	0.0 - 0.020	%	Karl Fisher
Films	**Nominal Value**	**Unit**	**Test Method**
Film Puncture Energy			ISO 6603-2
-- [13]	1.50	J	ISO 6603-2
-- [14]	1.50	J	ISO 6603-2
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	25	kJ/m^2	ISO 179/1eU
23°C	25	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	20	kJ/m^2	ISO 180/1U
23°C	20	kJ/m^2	ISO 180/1U
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, not annealed	215	°C	ISO 75-2/B
1.8 MPa, not annealed	190	°C	ISO 75-2/A
Vicat Softening Temperature	205	°C	ISO 306/B120
Ball Pressure Test (212°C)	Pass		IEC 60695-10-2
Melting Temperature [15]	222	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 55°C	5.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	1.3E-4	cm/cm/°C	ISO 11359-2

RTI Elec	140	°C	UL 746
RTI Imp	125	°C	UL 746
RTI	140	°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
Dielectric Strength (23°C, 1.00 mm)	30	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	3.60		IEC 60250
23°C, 1 MHz	3.40		IEC 60250
Dissipation Factor			IEC 60250
23°C, 100 Hz	1.5E-3		IEC 60250
23°C, 1 MHz	0.018		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 [16]	20	%	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.	60x60x2; MT 80°C; 600 Bar		
2.	60x60x2		
3.	60x60x2; MT 80°C; 600 Bar		
4.	60x60x2		
5.	2.0 mm/min		
6.	2.0 mm/min		
7.	2.0 mm/min		
8.	Pull Rate: 2 mm/min; 50% RH		
9.	Tensile Impact Strength		
10.	Electric Strength		
11.	Tensile Strength		
12.	20000 h		
13.	-30°C		
14.	23°C		
15.	10°C/min		
16.	Procedure A		

Recommended distributors for this material

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