

MAJORIS PBT 9237 20 FV

Polybutylene Terephthalate

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Message:

PBT 9237 20 FV is a 20 % glass fibre reinforced polybutylene terephthalate , intended for injection moulding. The product is available in natural and black (PBT 9237 20 FV - 8229) but other colours can be provided on request

They combine high mechanical, thermal and electrical properties with excellent chemical resistance and dimensional stability

APPLICATIONS

PBT 9237 20 FV is intended for the injection moulding of electrical components and automotive applications including interior, exterior and electrical and mechanical systems, such as:

Electrical appliance components

Switches and connector housings

Dashboard components

Door handles and pillar trim

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Features	Good dimensional stability		
	Good electrical performance		
	Good chemical resistance		
Uses	Handle		
	Membrane key switch		
	Electrical/Electronic Applications		
	Home appliance components		
	Connector		
	Car interior parts		
	Car interior equipment		
	Automotive exterior parts		
	Car exterior decoration		
	Shell		
Appearance	Black		
	Available colors		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction: 3.00mm	1.0	%	ISO 294-4
Flow direction: 3.00mm	0.60	%	ISO 294-4

Water Absorption			ISO 62
23°C, 24 hr	0.040	%	ISO 62
Equilibrium, 23°C, 50% RH	0.16	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	215	MPa	NF C 62-411
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	7400	MPa	ISO 527-2
Tensile Stress (Break)	120	MPa	ISO 527-2
Tensile Strain (Break)	3.0	%	ISO 527-2
Flexural Modulus	7000	MPa	ISO 178
Flexural Stress	205	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	10	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	40	kJ/m ²	ISO 179
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	205	°C	ISO 75-2/A
Melting Temperature	225	°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+15	ohms	ASTM D257
Volume Resistivity	1.0E+15	ohms · cm	ASTM D257
Dielectric Strength (2.00 mm)	39	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	3.20		ASTM D150
1 kHz	3.20		ASTM D150
1 MHz	3.10		ASTM D150
Dissipation Factor			ASTM D150
50 Hz	1.0E-3		ASTM D150
1 kHz	1.0E-3		ASTM D150
1 MHz	0.014		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94
Glow Wire Flammability Index ¹ (2.00 mm)	750	°C	IEC 60695-2-12
Oxygen Index	20	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	4.0	hr	
Processing (Melt) Temp	255 - 270	°C	
Mold Temperature	80.0 - 120	°C	
Injection Rate	Fast		
Injection instructions			

Back Pressure: Moderate

NOTE

1. >30 sec

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