TechnoDur PBT4 GF 20 LW Natural (9923)

Polybutylene Terephthalate

TechnoCompound GmbH

Message:

TechnoDur: Braves extremely low Temperatures

Our new TechnoDur PBT compound is a thermoplastic which combines great hardness, stiffness and strength. TechnoDur is easily processed due to its perfect flow behaviour. The favourable sliding and wear characteristics as well as extremely high tenacity in temperatures below freezing are further advantages.

Typical Applications

TechnoDur compounds may be applied in the following areas:

Electrical engineering: Lamp holders, micro switches, spools, brush-holder bridges, switches, cam divices, telephone housings...

Automobile construction: Junction boxes, petrol filters, fuel tank caps, heating, folds, headlights, car body panels, spark plug connectors...

Household appliances: Hair care appliances, components for toasters, fondue makers, coffeemakers...

Other: pump components, gears guide applications: slide bearings and components...

General Information					
Filler / Reinforcement	Glass fiber reinforced material, 20%	Glass fiber reinforced material, 20% filler by weight			
Features	Low warpage				
	Rigidity, high				
	High strength				
	Workability, good				
	Good liquidity				
	Low temperature resistance				
	Good wear resistance				
	High hardness				
Uses	Pump parts				
	Electrical/Electronic Applications				
	Electrical housing				
	Electrical appliances				
	Home appliance components				
	Switch				
	Application in Automobile Field				
	Bearing				
Appearance	Natural color				
Physical	Nominal Value	Unit	Test Method		
Density	1.45	g/cm³	ISO 1183		
Melt Volume-Flow Rate (MVR) (250°C/2.16					
kg)	10.0	cm³/10min	ISO 1133		
Molding Shrinkage ¹			ISO 2577		
Transverse flow	1.0	%	ISO 2577		
Flow	0.40	%	ISO 2577		

Water Absorption			ISO 62
23°C, 24 hr	0.15	%	ISO 62
Saturated, 23°C	0.40	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness ²	200	МРа	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	7000	МРа	ISO 527-2/1
Tensile Stress (Break)	125	МРа	ISO 527-2/5
Tensile Strain (Break)	3.0	%	ISO 527-2/5
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	40	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	210	°C	ISO 75-2/B
1.8 MPa, not annealed	195	°C	ISO 75-2/A
8.0 MPa, not annealed	90.0	°C	ISO 75-2/C
Vicat Softening Temperature	210	°C	ISO 306/B50
Melting Temperature ³	220 - 225	°C	ISO 11357-3
CLTE - Flow (23 to 80°C)	3.0E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+14	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Relative Permittivity			IEC 60250
100 Hz	4.30		IEC 60250
1 MHz	4.00		IEC 60250
Comparative Tracking Index (Solution A)	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.8 mm)	НВ		Internal method
NOTE			
1.	260°C / WZ 80°C, 600 bar		
2.	358 N		
3.	10°C/min		

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