

TechnoDur PBT4 GF 30 LW Natural (9931)

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, 30% filler by weight		
Features	Low warpage		
	Rigidity, high		
	High strength		
	Workability, good		
	Good liquidity		
	Low temperature resistance		
	Good wear resistance		
Uses	High hardness		
	Pump parts		
	Electrical/Electronic Applications		
	Electrical housing		
	Electrical appliances		
	Home appliance components		
	Switch		
Appearance	Application in Automobile Field		
	Bearing		
Natural color			
Physical	Nominal Value	Unit	Test Method
Density	1.50	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	6.00	cm ³ /10min	ISO 1133
Molding Shrinkage ¹			ISO 2577
Transverse flow	0.70	%	ISO 2577
Flow	0.35	%	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	220	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	11500	MPa	ISO 527-2/1
Tensile Stress (Break)	160	MPa	ISO 527-2/5
Tensile Strain (Break)	2.8	%	ISO 527-2/5
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	55	kJ/m ²	ISO 179/1eU
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	200	°C	ISO 75-2/A
8.0 MPa, not annealed	120	°C	ISO 75-2/C
Vicat Softening Temperature	220	°C	ISO 306/B50
Melting Temperature ³	220 - 225	°C	ISO 11357-3
CLTE - Flow (23 to 80°C)	2.0E-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	4.20		IEC 60250
1 MHz	3.90		IEC 60250
Comparative Tracking Index (Solution A)	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.8 mm)	HB		Internal method
NOTE			
1.	260°C / WZ 80°C, 600 bar		
2.	358 N		
3.	10°C/min		

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