PRODUCT INFORMATION

TAROLOX 10 G6

PBT medium viscosity 30% glass fibres reinforced, good flow, good mechanical and thermal properties, good dimensional stability.

ISO short	ISO 1043: PBT-GF30
Form	Pellets

Key Features

- High stiffness
- Designed for injection moulding applications
- Glass fibres reinforced
- Good flowability
- Good dimensional stability

Availability

- W: lubricated
- I: improved resistance to hydrolysis
- LP: laser printable
- L: UV stabilized
- H: heat stabilized
- FA: food approval
- All colours

Compliance

- FCA 55235 - PE 200.90 (PBF-GF30)

Process

- INJECTION MOULDING

Application

- Power tools
- Household
- Furniture
- Electronic
- Electrical
- Consumer
- Automotive

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	> 10E15		
Dielectric Strength	IEC 60243-1	kV/mm	21	2 mm	
Dielectric Constant (1 MHz)	IEC 60250	-	3,8		
Dissipation Factor Frequency (1 MHz)	IEC 60250	-	0,02		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	450		

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Tracking Resistance (CTI - Method B)	IEC 60112	Volt	350M	
PHYSICAL				
Density (+23°C)	ISO 1183	g/cm^3	1,54	
Granule Humidity	Internal method	%	< 0,05	
Water Absorption (24h / +23°C)	ISO 62	%	0,05	
Water Absorption at Saturation	ISO 62	%	0,24	
Mould Shrinkage (Parallel)	Internal method	%	0,4 - 0,6	
Mould Shrinkage (Normal)	Internal method	%	0,6 - 0,9	
Melting temperature (DSC)	ISO 11357	°C	225	
Melt Flow Rate (MFR)	ISO 1133	g/10 min	14	250°C - 2,16 kg
MECHANICAL				
Tensile Modulus	ISO 527-1,2	MPa	9700	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	2,7	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	135	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	9200	Speed 2 mm/min
Flexural Break Strength	ISO 178	MPa	210	Speed 10 mm/min
IZOD Notched Impact (+23°C)	ISO 180/1A	kJ/m^2	9,5	
IZOD Notched Impact (+23°C)	ASTM D256	J/m	120	
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	9,2	
THERMAL				
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	216	50 °C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	210	120 °C / h
Deflection Temperature 0,45 MPa (HDT B)	ISO 75B	°C	218	
Ball Pressure Test	IEC 60695-10-2	°C	215	
Continuous service temperature (20.000 h)	UL746 B	°C	100 (140 H)	
Continuous service temperature (short term)	UL746 B	°C	140 (180 H)	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	3x10E(-5)	-30°C /+30°C

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FLAMMABILITY

Flame Behaviour (1,6 mm)	UL94	Class	HB	
Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	700	
Burning Rate (US-FMVSS 302)	ISO 3795	mm/min	< 80	Thickness > 1,5 mm
Oxigen index	ASTM D2863	%	20	

INJECTION MOULDING	Value
Drying Temperature (Circulating Air Oven)	80 - 120°C
Drying Temperature (Desiccant Dryer)	80 - 120°C
Drying Time (Circulating Air Oven)	3 - 6 h
Drying Time (Desiccant Dryer)	2 - 4 h
Suggested Max Moisture	< 0,04
Suggested Max Regrind	< 20%
Melt Temperature	250 - 270°C
Feed Temperature	60°C
Rear Temperature	235°C
Middle Temperature	245°C
Front Temperature	255°C
Nozzle Temperature	260°C
Mould Temperature	60 - 100°C
Injection Rate	Medium to Fast
Injection Pressure	40 - 100 Mpa
Packing Pressure	30 - 80 Mpa
Back Pressure	0,5 - 1 Mpa
Screw Revolving Speed	70 rpm @ Diameter 60 mm
Screw Revolving Speed	95 rpm @ Diameter 45 mm
Screw Revolving Speed	140 rpm @ Diameter 30 mm
Screw Revolving Speed	220 rpm @ Diameter 20 mm
Screw Revolving Speed	300 rpm @ Diameter 15 mm
Cushion	2 - 6 mm
Screw L/D Ratio	18 - 22
Screw Compression Ratio	2:1 - 2,5:1
Vent Depth	0,02 mm

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Notes During processing, a dehumidifying hopper dryer is recommended at a temperature of 60 to 80°C. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine or extruder size, part geometry and design.