PRODUCT INFORMATION

TAROLOX 10 G6 MT4

PBT medium viscosity 50% mineral/glass fibres reinforced, very high stiffness, good mechanical and thermal properties, very 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
- Mineral filled
- Good dimensional stability

Availability

- W: lubricated
- LP: laser printable
- L: UV stabilized
- H: heat stabilized
- FA: food approval
- All colours

Process

- INJECTION MOULDING

Application

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

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	>450		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,70 - 1,72		
Filler content	ISO 3451	%	50	750°C - 1 h	
Granule Humidity	Internal method	%	<0,05		
Water Absorption (24h / +23°C)	ISO 62	%	0,05		

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Water Absorption at Saturation	ISO 62	%	0,5	
Mould Shrinkage (Parallel)	Internal method	%	0,25 - 0,40	
Mould Shrinkage (Normal)	Internal method	%	0,6 - 0,9	
Melt Flow Rate (MFR)	ISO 1133	g/10 min	5	250°C - 2,16 kg
MECHANICAL				
Tensile Modulus	ISO 527-1,2	MPa	10500	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	1,5	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	9500	Speed 1 mm/min
Flexural Break Strength	ISO 178	MPa	130	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	60	+23°C
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	6	
THERMAL				
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	210	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	205	120°C / h
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	3x10exp(-5)	-30°C /+30°C
FLAMMABILITY				
Flame Behaviour (1,6 mm)	UL94	Class	HB	
Flame Behaviour (3,2 mm)	UL94	Class	HB	
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

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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

Notes During processing, a dehumidifying hopper dryer is recommended at a temperature of 60 to 80°C.