PRODUCT INFORMATION

TAROLOX 10 Z2

PBT medium viscosity elastomer modified, good impact and thermal properties.

ISO short ISO 1043: PBT-I
Form Pellets

Key Features

- Good impact - stiffness balance
- Designed for injection moulding applications

Availability

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

Process

- INJECTION MOULDING

Application

- Furniture
- Electrical
- Automotive

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	>10exp(15)		
Dielectric Strength	IEC 60243-1	kV/mm	18	2 mm	
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	>600		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,26 - 1,28		
Granule Humidity	Internal method	%	<0,05		
Water Absorption (24h / +23°C)	ISO 62	%	0,08		
Water Absorption at Saturation	ISO 62	%	0,5		
Mould Shrinkage (Parallel)	Internal method	%	1,6-1,8		
Mould Shrinkage (Normal)	Internal method	%	1,6-1,8		

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Melting temperature (DSC)	ISO 11357	°C	218	
Melt Flow Rate (MFR)	ISO 1133	g/10 min	12	250°C - 1,2 kg
MECHANICAL				
Tensile Modulus	ISO 527-1,2	MPa	2200	Speed 1 mm/min
Tensile Yield Strength	ISO 527-1,2	MPa	55	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	>100	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	45	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	2100	Speed 1 mm/min
Flexural Max Strength	ISO 178	MPa	70	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	45	-30°C
IZOD Notched Impact	ASTM D256	J/m	85	+23
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	10	
THERMAL				
Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	185	50°C / h
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	165	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	55	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	165	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	10x10exp(-5)	-30°C /+30°C
FLAMMABILITY				
Flame Behaviour (0,97 mm)	UL94	Class	HB	
Flame Behaviour (1,6 mm)	UL94	Class	HB	
Flame Behaviour (3,2 mm)	UL94	Class	HB	
Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	650	
Oxigen index	ASTM D2863	%	22	

INJECTION MOULDING	**Value**
Drying Temperature (Circulating Air Oven)	80 - 120°C
Drying Temperature (Desiccant Dryer)	80 - 120°C

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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

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.