



PRODUCT INFORMATION

TAROLOX 10 H G6 DX0

PBT medium viscosity 30% glass fibres reinforced heat stabilized, flame retardant UL94 V0, PBDE/PBDF free, good flow, good surface appearance, good mechanical properties, very high dimensional stability good tracking resistance.

ISO short ISO 1043: PBT-GF30 FR(17)
Form Pellets
UL file E143048

Key Features

- Improved thermal resistance
- Designed for injection moulding applications
- Glass fibres reinforced
- Flame retardant

Availability

- Various colours

Compliance

- UL94 V0 approved NC,BK at 0,75 mm. UL 746 B approved - UL 746 A (HAI-HWI-CTI) approved.

Process

- INJECTION MOULDING

Application

- Household
- Electronic
- Electrical
- Connectors
- Consumer
- Building

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	>10E(15)		
Dielectric Strength	IEC 60243-1	kV/mm	26	2 mm	
Dissipation Factor Frequency	IEC 60250	-	0,020		
Dielectric Constant	IEC 60250	-	3,7		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	250	UL746 A CTI class 2	
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm ³	1,65		
Filler content	ISO 3451	%	30	850°C - 1 h	

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Granule Humidity	Internal method	%	<0,05
Water Absorption (24h / +23°C)	ISO 62	%	0,03
Water Absorption at Saturation	ISO 62	%	0,22
Mould Shrinkage (Parallel)	Internal method	%	0,2 - 0,4
Mould Shrinkage (Normal)	Internal method	%	0,4 - 0,6
Melting temperature (DSC)	ISO 11357	°C	225

MECHANICAL

Tensile Modulus	ISO 527-1,2	MPa	10000	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	2	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	120	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	9000	Speed 2 mm/min
Flexural Break Strength	ISO 178	MPa	210	Speed 10 mm/min
IZOD Notched Impact (+23°C)	ASTM D256	J/m	80	
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m ²	7	

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	215	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	215	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	215	
Continuous service temperature (20.000 h)	UL746 B	°C	140	
Continuous service temperature (short term)	UL746 B	°C	165	
Continuous service temperature	UL746 B	°C	130	UL746 B approved
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K ⁻¹	2,5x10E(-5)	-30°C / +30°C

FLAMMABILITY

Flame Behaviour (0,75 mm)	UL94	Class	V0	UL approved NC, BK
Flame Behaviour (1,5 mm)	UL94	Class	V0	
Flame Behaviour (3,0 mm)	UL94	Class	V0	

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Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	960	
Glow Wire Ignition Temperature-GWIT (1 mm)	IEC 60695-2-13	°C	825	
Oxygen index	ASTM D2863	%	32	
HAI (0,75 mm)	UL746 A	PLC	0	UL approved
HAI (1,5 mm)	UL746 A	PLC	0	UL approved
HAI (3,0 mm)	UL746 A	PLC	0	UL approved
HWI (0,75 mm)	UL746 A	PLC	4	UL approved
HWI (1,5 mm)	UL746 A	PLC	2	UL approved
HWI (3,0 mm)	UL746 A	PLC	0	UL approved

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



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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.