PRODUCT INFORMATION

TAROLOX 111 G6 DX0

PET medium viscosity 30% glass fibres reinforced, flame retardant UL94 V0, good flame proofing also at low thickness, heat stabilized, good flow, very good mechanical, thermal and electrical properties, low moisture absorption, good dimensional stability.

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

Key Features

- High mechanical properties
- Designed for injection moulding applications
- Flame retardant

Availability

- W: lubricated
- Various colours

Process

- INJECTION MOULDING

Application

- Electronic
- Power tools case
- Electrical
- Connectors

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	10exp(15)		
Dielectric Strength	IEC 60243-1	kV/mm	32	1 mm	
Dissipation Factor Frequency	IEC 60250	-	0,010		
Dielectric Constant	IEC 60250	-	3,6		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	250		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,66 - 1,68		
Filler content	ISO 3451	%	30	850°C - 1 h	
Granule Humidity	Internal method	%	<0,03		
Water Absorption (24h / +23°C)	ISO 62	%	0,05		

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Mould Shrinkage (Parallel)	Internal method	%	0,2-0,3	
Mould Shrinkage (Normal)	Internal method	%	0,5 - 0,7	
Melting temperature (DSC)	ISO 11357	°C	256	
MECHANICAL				
Tensile Modulus	ISO 527-1,2	MPa	11000	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	2	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	135	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	10000	Speed 1 mm/min
Flexural Break Strength	ISO 178	MPa	220	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	70	-20°C
IZOD Notched Impact	ASTM D256	J/m	85	+23°C
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	9	
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	46	
THERMAL				
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	240	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	225	120°C / h
Deflection Temperature 0,45 MPa (HDT B)	ISO 75B	°C	246	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	245	
Continuous service temperature (20.000 h)	UL746 B	°C	150	
Continuous service temperature	UL746 B	°C	150	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	2x10exp(-5)	-30°C /+30°C
FLAMMABILITY				
Flame Behaviour (0,75 mm)	UL94	Class	V0	
Flame Behaviour (1,6 mm)	UL94	Class	V0	
Flame Behaviour (3,2 mm)	UL94	Class	V0	
Glow Wire Flammability Index-GWFI (1 mm)	IEC 60695-2-12	°C	960	
Oxigen index	ASTM D2863	%	32	

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INJECTION MOULDING	Value
Drying Temperature (Circulating Air Oven)	3 - 4 h
Drying Time (Circulating Air Oven)	110 - 130°C
Suggested Max Moisture	< 0,05 %
Suggested Max Regrind	< 10 %
Melt Temperature	270 - 290°C
Feed Temperature	240 - 250°C
Rear Temperature	250 - 260°C
Middle Temperature	260 - 270°C
Front Temperature	270 - 280°C
Nozzle Temperature	290°C
Mould Temperature	110 - 130°C
Injection Rate	Medium
Packing Pressure	50 - 80 Mpa
Back Pressure	As low as possible
Screw Revolving Speed	50 - 150 rpm
Cushion	3 - 6 mm
Screw L/D Ratio	18 - 22
Vent Depth	0,02 mm

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