



PRODUCT INFORMATION

TAROLOX 111 G7 DX02

PET medium viscosity 33% glass fibres reinforced, flame retardant UL94 V0, heat stabilized, good flow, very good mechanical, thermal and electrical properties, low moisture absorption, good dimensional stability.

ISO short Form ISO 1043: PET-GF33 FR(17)
Form Pellets
UL file E143048

Key Features

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

Compliance

- UL94 V-0
- UL746 B
- UL746 A - HWI approved
- UL746 A - HAI approved
- UL746 A
- AFNOR NF F 16-101 and NF F 16-102 class I2-F3 (only GREY version)

Availability

- W: lubricated
- All colours

Process

- INJECTION MOULDING

Application

- Electronic
- Power tools case
- Electrical
- Connectors

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	10E(13)		
Dielectric Strength	IEC 60243-1	kV/mm	29		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	>175	UL746 A CTI class 3	
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm ³	1,72		
Filler content	ISO 3451	%	33	850°C - 1 h	



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Granule Humidity	Internal method	%	< 0,03
Water Absorption (24h / +23°C)	ISO 62	%	0,06
Mould Shrinkage (Parallel)	Internal method	%	0,3-0,5
Mould Shrinkage (Normal)	Internal method	%	0,6-0,8
Melting temperature (DSC)	ISO 11357	°C	255

MECHANICAL

Tensile Modulus	ISO 527-1,2	MPa	13000	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	2	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	160	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	12000	Speed 1 mm/min
Flexural Break Strength	ISO 178	MPa	190	Speed 1 mm/min
IZOD Notched Impact (+23°C)	ASTM D256	J/m	70	
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m ²	6,5	
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m ²	30	

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	230	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	235	120°C / h
Continuous service temperature	UL746 B	°C	120	M. with imp. 0,75 mm
Continuous service temperature	UL746 B	°C	130	M. with imp. 3 mm
Continuous service temperature	UL746 B	°C	130	M. w/o imp. 0,75 mm
Continuous service temperature	UL746 B	°C	150	E. 0,75 mm
Continuous service temperature	UL746 B	°C	140	M. w/o imp. 3 mm

FLAMMABILITY

Flame Behaviour (0,75 mm)	UL94	Class	V2	UL approved
Flame Behaviour (1,5 mm)	UL94	Class	V0	UL approved
Flame Behaviour (3,0 mm)	UL94	Class	V0	UL approved
Glow Wire Flammability Index-GWFI (1 mm)	IEC 60695-2-12	°C	960	



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Oxygen index	ASTM D2863	%	36	
Reaction to fire	NF F 16-101 NF F 16-102	Class	I2 (only GREY version)	Thickness 2 mm
Smoke index	NF F 16-101 NF F 16-102	Class	F3 (only GREY version)	Thickness 2 mm
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	0	UL approved
HWI (1,5 mm)	UL746 A	PLC	0	UL approved
HWI (3,0 mm)	UL746 A	PLC	0	UL approved

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



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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 size, part geometry and design.