



PRODUCT INFORMATION

TAROLOX 111 G4 DX02

PET medium viscosity 20% glass fibres reinforced, flame retardant UL94 V0, heat stabilized, good flow, very good mechanical, thermal and electrical properties, low moisture absorption, good dimensional stability. Designed for electrical applications requiring the compliance with the European Directive 2002/95/EC (RoHS Decree).

ISO short Form ISO 1043: PET-GF20 FR(17)
UL file Pellets
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

Availability

- W: lubricated
- All colours

Process

- INJECTION MOULDING

Application

- Electronic
- Power tools case
- Electrical
- Connectors

Property	Method	Unit	Value	Condition	State
----------	--------	------	-------	-----------	-------

ELECTRICAL

Tracking Resistance (CTI - Method A)	IEC 60112	Volt	225		
--------------------------------------	-----------	------	-----	--	--

PHYSICAL

Density (+23°C)	ISO 1183	g/cm ³	1,63		
-----------------	----------	-------------------	------	--	--

Filler content	ISO 3451	%	20	850°C - 1 h	
----------------	----------	---	----	-------------	--

Granule Humidity	Internal method	%	< 0,03		
------------------	-----------------	---	--------	--	--



PRODUCT INFORMATION

TAROLOX 111 G4 DX02

Water Absorption (24h / +23°C)	ISO 62	%	0,06
Mould Shrinkage (Parallel)	Internal method	%	0,2-0,3
Mould Shrinkage (Normal)	Internal method	%	0,6-0,8
Melting temperature (DSC)	ISO 11357	°C	256

MECHANICAL

Tensile Modulus	ISO 527-1,2	MPa	9000	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	2,8	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	8200	Speed 1 mm/min
Flexural Break Strength	ISO 178	MPa	180	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	50	+23°C

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	236	120°C / h

FLAMMABILITY

Flame Behaviour (0,75 mm)	UL94	Class	V2	UL approved
Flame Behaviour (1,5 mm)	UL94	Class	V0	UL approved
Flame Behaviour (3,2 mm)	UL94	Class	V0	UL approved
Glow Wire Flammability Index-GWFI (1 mm)	IEC 60695-2-12	°C	960	
Oxygen index	ASTM D2863	%	32	
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 Re grind	< 10 %



PRODUCT INFORMATION

TAROLOX 111 G4 DX02

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.