PRODUCT INFORMATION

TAROLOX 111 G5 Y0

PET medium viscosity 25% glass fibres reinforced, halogen free flame retardant UL94 V0, heat stabilized, good flow, good mechanical, thermal and electrical properties, low moisture absorption, good dimensional stability.

ISO short	ISO 1043: PET-GF25 FR(40)
Form	Pellets

Key Features

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

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	600		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,55		
Glass Fiber content	Internal method	%	20		
Granule Humidity	Internal method	%	<0,03		
Water Absorption (24h / +23°C)	ISO 62	%	0,05		
Mould Shrinkage (Parallel)	Internal method	%	0,3 - 0,4		
Mould Shrinkage (Normal)	Internal method	%	0,5 - 0,7		
Melting temperature (DSC)	ISO 11357	°C	256		
MECHANICAL					
Tensile Modulus	ISO 527-1,2	MPa	10200	Speed 1 mm/min	

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Elongation at Break	ISO 527-1,2	%	1,8	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	100	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	9400	Speed 1 mm/min
Flexural Break Strength	ISO 178	MPa	140	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	75	+23°C
IZOD Notched Impact	ASTM D256	J/m	60	-20°C
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	6,5	
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	40	

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	235	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	232	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	245	
Continuous service temperature	UL746 B	°C	150	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	3,3x10exp(-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	
Glow Wire Ignition Temperature-GWIT (1 mm)	IEC 60695-2-13	°C	775	

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

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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.