PRODUCT INFORMATION

TAROLOX 2050 W G9

PBT/PET alloy 45% glass fibres reinforced, very good surface appearance, high temperature and chemical resistance. High dimensional stability with low moisture absorption.

ISO short ISO 1043: PBT+PET-GF45
Form Pellets

Key Features

- Designed for injection moulding applications
- Glass fibres reinforced
- Good surface aspect

Availability

- W: lubricated
- L: UV stabilized
- H: heat stabilized
- All colours

Process

- INJECTION MOULDING

Application

- Household
- Consumer
- Automotive

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	>10exp(14)		
Dielectric Strength	IEC 60243-1	kV/mm	22	3,2 mm	
Dissipation Factor Frequency	IEC 60250	-	0,015		
Dielectric Constant	IEC 60250	-	3,8		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	250		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,69		
Filler content	ISO 3451	%	45	750°C - 1 h	
Granule Humidity	Internal method	%	<0,03		
Water Absorption (24h / +23°C)	ISO 62	%	0,05		
Mould Shrinkage (Parallel)	Internal method	%	0,15-0,25		

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Mould Shrinkage (Normal)	Internal method	%	0,3-0,4	
Melting temperature (DSC)	ISO 11357	°C	235	

MECHANICAL

Tensile Modulus	ISO 527-1,2	MPa	15000	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	1,5	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	140	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	13000	Speed 1 mm/min
Flexural Break Strength	ISO 178	MPa	210	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	80	-20°C
IZOD Notched Impact	ASTM D256	J/m	90	+23°C
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	10	
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	70	

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	207	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	225	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	215	
Continuous service temperature (20.000 h)	UL746 B	°C	130 (H)	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	1,4x10exp(-5)	-30°C /+30°C

FLAMMABILITY

Flame Behaviour (0,97 mm)	UL94	Class	HB	
Flame Behaviour (1,6 mm)	UL94	Class	HB	
Glow Wire Flammability Index-GWFI	IEC 60695-2-12	°C	650	
Oxigen index	ASTM D2863	%	19	

INJECTION MOULDING	Value
Drying Temperature (Circulating Air Oven)	80 - 120°C
Drying Temperature (Desiccant Dryer)	80 - 120°C

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Drying Time (Circulating Air Oven)	4 - 8 h
Drying Time (Desiccant Dryer)	2 - 4 h
Suggested Max Moisture	< 0,02
Suggested Max Regrind	< 20%
Melt Temperature	260 - 285°C
Feed Temperature	60°C
Rear Temperature	240°C
Middle Temperature	255°C
Front Temperature	265°C
Nozzle Temperature	275°C
Mould Temperature	80 - 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
Cushion	2 - 6 mm
Screw L/D Ratio	18 - 22
Screw Compression Ratio	2 - 2,5
Vent Depth	0,02 mm

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