PRODUCT INFORMATION

TAROLON 2500 W G4 X0

Polycarbonate medium viscosity 20% glass fibres reinforced, flame retardant UL94 V0, good mechanical properties also at high temperature, very good dimensional stability.

ISO short	ISO 1043: PC-GF20 FR
Form	Pellets
UL file	E143048

Key Features

- Glass fibres reinforced
- Flame retardant
- Good flowability
- Antimony trioxide free

Availability

- W: lubricated
- LP: laser printable
- L: UV stabilized
- All colours

Compliance

- UL94 V0 approved all colours at 0,97 mm. UL746 B approved.

Process

- INJECTION MOULDING

Application

- Electronic
- Electrical
- Automotive

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	>10exp(15)		
Dielectric Strength	IEC 60243-1	kV/mm	24	2 mm	
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	150		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,35-1,37		
Filler content	ISO 3451	%	20	850°C - 1 h	
Water Absorption (24h / +23°C)	ISO 62	%	0,08		
Water Absorption at Saturation	ISO 62	%	0,25		
Mould Shrinkage (Parallel)	Internal method	%	0,25-0,35		
Mould Shrinkage (Normal)	Internal method	%	0,5-0,75		
MECHANICAL					

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Tensile Modulus	ISO 527-1,2	MPa	6000	Speed 1 mm/min
Elongation at Break	ISO 527-1,2	%	4	Speed 50 mm/min
Tensile Break Strength	ISO 527-1,2	MPa	80	Speed 50 mm/min
Flexural Modulus	ISO 178	MPa	5600	Speed 1 mm/min
Flexural Break Strength	ISO 178	MPa	120	Speed 1 mm/min
IZOD Notched Impact	ASTM D256	J/m	125	+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	44	
THERMAL				
Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	156	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	148	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	135	
Continuous service temperature	UL746 B	°C	80	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	3x10exp(-5)	-30°C /+30°C
FLAMMABILITY				
Flame Behaviour (0,97 mm)	UL94	Class	V0	UL approved
Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	960	
Oxigen index	ASTM D2863	%	36	

INJECTION MOULDING	**Value**
Drying Temperature (Desiccant Dryer)	120°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	0,02 %
Suggested Max Regrind	< 15 %
Melt Temperature	260 - 290°C
Feed Temperature	80 - 100°C
Rear Temperature	250 - 270°C
Middle Temperature	260 - 280°C
Front Temperature	270 - 285°C
Nozzle Temperature	275 - 295°C

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Mould Temperature	80 - 120°C
Injection Rate	Medium to Fast
Back Pressure	As low as possible (< 0,3 Mpa)
Screw Revolving Speed	25 - 50 rpm
Screw Revolving Speed	50 rpm @ Diameter 40 mm
Screw Revolving Speed	35 rpm @ Diameter 55 mm
Screw Revolving Speed	25 rpm @ Diameter 75 mm
Cushion	3 - 5 mm
Vent Depth	0,05 mm

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 or extruder size, part geometry and design.