PRODUCT INFORMATION

TAROMID B 280 G7 X0

Polyamide 6 medium viscosity 35% glass fibres reinforced, flame retardant UL94 V0, good flame proofing also at low thickness, good mechanical properties, good dimensional stability.

ISO short	ISO 1043: PA6-GF35 FR(17)
Form	Pellets
UL file	E143048

Key Features

- Designed for injection moulding applications
- Glass fibres reinforced
- Flame retardant
- Good flowability

Availability

- LP: laser printable
- L: UV stabilized
- H: heat stabilized
- All colours

Compliance

- UL94 V0 approved all colours at 0,97 mm. UL746 B approuved - UL746 A CTI class 3, HAI class 0, HWI class 1 -

Process

- INJECTION MOULDING

Application

- Electronic
- Electrical

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	10E(15)		
Tracking Resistance CTI	UL746 A (ASTM D3638)	PLC	3	UL approved	
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,61		
Filler content	ISO 3451	%	35	850°C - 1 h	
Granule Humidity	Internal method	%	< 0,15		
Water Absorption (24h / +23°C)	ISO 62	%	0,65		
Water Absorption at Saturation	ISO 62	%	5		
Mould Shrinkage (Parallel)	Internal method	%	0,20 - 0,35		
Mould Shrinkage (Normal)	Internal method	%	0,35 - 0,55		
Melting temperature (DSC)	ISO 11357	°C	222		

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MECHANICAL

Tensile Modulus	ISO 527-1,2	MPa	6000	Speed 1 mm/min	Cond.
Tensile Modulus	ISO 527-1,2	MPa	9700	Speed 1 mm/min	Dry
Elongation at Break	ISO 527-1,2	%	2,1	Speed 50 mm/min	Cond.
Elongation at Break	ISO 527-1,2	%	1,5	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	90	Speed 50 mm/min	Cond.
Tensile Break Strength	ISO 527-1,2	MPa	135	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	9250	Speed 1 mm/min	Dry
Flexural Break Strength	ISO 178	MPa	205	Speed 1 mm/min	Dry
IZOD Notched Impact (+23°C)	ASTM D256	J/m	90		Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	8,5		Dry
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	45		Cond.
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	38		Dry

THERMAL

Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	218	50°C / h
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	212	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	210	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	170	
Continuous service temperature (20.000 h)	UL746 B	°C	120	
Continuous service temperature (short term)	UL746 B	°C	160	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	2,8x10E(-5)	-30°C /+30°C

FLAMMABILITY

Flame Behaviour (1 mm)	UL94	Class	V0	UL approved all colours
Flame Behaviour (3,0 mm)	UL94	Class	V0	UL approved all colours
Glow Wire Flammability Index-GWFI (1 mm)	IEC 60695-2-12	°C	960	
Glow Wire Ignition Temperature-GWIT (1,6 mm)	IEC 60695-2-13	°C	825	
Oxigen index	ASTM D2863	%	32	

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HAI (1,0 mm)	UL746 A	PLC	0	UL approved
HAI (3,0 mm)	UL746 A	PLC	0	UL approved
HWI (1,0 mm)	UL746 A	PLC	1	UL approved
HWI (3,0 mm)	UL746 A	PLC	1	UL approved

INJECTION MOULDING	Value
Drying Temperature (Desiccant Dryer)	80 - 90°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	0,08 %
Suggested Max Regrind	< 10 %
Melt Temperature	230 - 260°C
Feed Temperature	210°C
Rear Temperature	235°C
Middle Temperature	245°C
Front Temperature	255°C
Nozzle Temperature	250°C
Mould Temperature	70 - 100°C
Injection Rate	Medium to Fast
Injection Pressure	3 - 12 Mpa
Packing Pressure	5 - 15 Mpa
Screw Revolving Speed	50 - 100 rpm
Cushion	> 3 mm
Screw L/D Ratio	18 - 22
Screw Compression Ratio	2:1 - 2,5:1
Vent Depth	0,02 mm

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