PRODUCT INFORMATION

TAROMID B 280 G4

Polyamide 6 medium viscosity 20% glass fibres reinforced.

ISO short ISO 1043: PA6-GF20
Form Pellets

Key Features

- Designed for injection moulding applications
- Glass fibres reinforced

Availability

- W: lubricated
- LP: laser printable
- L: UV stabilized
- I: improved resistance to glycol-hydrolysis
- HT: high resistance to heat
- H: heat stabilized
- FA: food approval
- DB: dry blend coloured
- All colours

Process

- INJECTION MOULDING

Application

- Electronic
- Electrical
- Consumer
- Building
- Automotive

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	7x10E15		
Dielectric Strength	IEC 60243-1	kV/mm	22	2 mm	
Dissipation Factor Frequency	IEC 60250	-	0,020		
Dielectric Constant	IEC 60250	-	4,10		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	550		
PHYSICAL					

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Density (+23°C)	ISO 1183	g/cm^3	1,27		
Filler content	ISO 3451	%	20	750°C - 1 h	
Granule Humidity	Internal method	%	< 0,10		
Water Absorption (24h / +23°C)	ISO 62	%	1,1		
Water Absorption at Saturation	ISO 62	%	7		
Mould Shrinkage (Parallel)	Internal method	%	0,4 - 0,5		
Mould Shrinkage (Normal)	Internal method	%	0,7 - 0,9		
Melting temperature (DSC)	ISO 11357	°C	222		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	12	250°C - 2,16 kg	
MECHANICAL					
Tensile Modulus	ISO 527-1,2	MPa	6500	Speed 1 mm/min	Dry
Elongation at Break	ISO 527-1,2	%	4	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	135	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	6000	Speed 1 mm/min	Dry
Flexural Break Strength	ISO 178	MPa	170	Speed 1 mm/min	Dry
IZOD Notched Impact (+23°C)	ASTM D256	J/m	110		Cond.
IZOD Notched Impact (+23°C)	ASTM D256	J/m	70		Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	9,5		
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	6,2		Dry
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	38		Dry
CHARPY Unnotched Impact (-25°C)	ISO 179/1eU	kJ/m^2	28		Dry
THERMAL					
Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	216	50°C / h	
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	208	50°C / h	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	190	120°C / h	
Continuous service temperature (20.000 h)	UL746 B	°C	90 (H 130)		
Continuous service temperature (short term)	UL746 B	°C	140 (H 180)		

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Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	4x10E(-5)	-30°C /+30°C

FLAMMABILITY

Flame Behaviour (0,97 mm)	UL94	Class	HB	
Flame Behaviour (1,6 mm)	UL94	Class	HB	
Flame Behaviour (3,2 mm)	UL94	Class	HB	
Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	750	
Burning Rate (US-FMVSS 302)	ISO 3795	mm/min	< 80	Thickness > 1,5 mm
Oxigen index	ASTM D2863	%	24	

INJECTION MOULDING	Value
Drying Temperature (Circulating Air Oven)	80 - 90°C
Drying Temperature (Desiccant Dryer)	80 - 90°C
Drying Time (Circulating Air Oven)	3 - 6 h
Drying Time (Desiccant Dryer)	2 - 4 h
Suggested Max Moisture	< 0,08 %
Suggested Max Regrind	< 15 %
Melt Temperature	240 - 270°C
Feed Temperature	230°C
Rear Temperature	240°C
Middle Temperature	255°C
Front Temperature	260°C
Nozzle Temperature	255°C
Mould Temperature	70 - 90°C
Injection Rate	Medium
Injection Pressure	40 - 100 Mpa
Packing Pressure	30 - 80 Mpa
Back Pressure	5 - 10 Mpa
Screw Revolving Speed	50 - 100 rpm
Cushion	2 - 6 mm
Screw L/D Ratio	18 - 22
Screw Compression Ratio	2:1 - 2,5:1
Vent Depth	0,02 mm

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