PRODUCT INFORMATION

TAROMID B 280 G8

Polyamide 6 medium viscosity 40% glass fibres reinforced, high mechanical properties and good dimensional stability.

ISO short	ISO 1043: PA6-GF40
Form	Pellets

Key Features

- Good impact - stiffness balance
- High stiffness
- Designed for injection moulding applications
- Glass fibres reinforced
- Good flowability

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
- All colours

Process

- INJECTION MOULDING

Application

- Gears
- Household
- General purpose applications
- Furniture
- Electronic
- Pump housings
- Power tools case
- Electrical
- Wheels
- Toys
- Sports
- Consumer
- Building
- Automotive

Property	Method	Unit	Value	Condition	State

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ELECTRICAL

Volume Resistivity	IEC 60093	Ohm cm	7x10exp(15)		
Dielectric Strength	IEC 60243-1	kV/mm	26	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

Density (+23°C)	ISO 1183	g/cm^3	1,47-1,49		
Filler content	ISO 3451	%	40	750°C - 1 h	
Granule Humidity	Internal method	%	<0,15		
Water Absorption (24h / +23°C)	ISO 62	%	0,7-0,8		
Water Absorption at Saturation	ISO 62	%	5		
Mould Shrinkage (Parallel)	Internal method	%	0,15-0,25		
Mould Shrinkage (Normal)	Internal method	%	0,4-0,5		
Melting temperature (DSC)	ISO 11357	°C	222		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	5	250°C - 2,16 kg	

MECHANICAL

Tensile Modulus	ISO 527-1,2	MPa	12500	Speed 1 mm/min	Dry
Elongation at Break	ISO 527-1,2	%	2,2	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	210	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	11500	Speed 1 mm/min	Dry
Flexural Break Strength	ISO 178	MPa	310	Speed 1 mm/min	Dry
IZOD Notched Impact	ASTM D256	J/m	145	+23°C	Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	15		Dry
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	58		Dry
CHARPY Unnotched Impact (-25°C)	ISO 179/1eU	kJ/m^2	46		Dry

THERMAL

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Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	216	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	214	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	190	
Continuous service temperature (20.000 h)	UL746 B	°C	100 (H 130)	
Continuous service temperature (short term)	UL746 B	°C	140 (H 180)	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	2,5x10exp(-5)	-30°C /+30°C

FLAMMABILITY

Flame Behaviour (0,97 mm)	UL94	Class	HB
Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	750
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

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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.