PRODUCT INFORMATION

TAROMID B 280 Z1 G6

Polyamide 6 medium viscosity 30% glass fibres reinforced, impact modified, high mechanical properties and good dimensional stability.

ISO short	ISO 1043: PA6-I-GF30
Form	Pellets

Key Features

- High mechanical properties
- Good impact - stiffness balance
- Improved impact resistance
- 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

- Gears
- Power tools
- Household
- General purpose applications
- Furniture
- Electronic
- Electrical
- Sports
- Consumer
- Building
- Automotive

Property	Method	Unit	Value	Condition	State
ELECTRICAL					

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Volume Resistivity	IEC 60093	Ohm cm	10E(13)		Dry
Surface Resistivity	IEC 60093	Ohm	10E(12)		Dry
Dielectric Constant (1 MHz)	IEC 60250	-	3,8		Dry
Dissipation Factor Frequency (100 Hz)	IEC 60250	-	200		Dry
Dissipation Factor Frequency (1 MHz)	IEC 60250	-	200		Dry
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	550		Dry
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,33		
Glass Fiber content	Internal method	%	30	750°C - 1 h	
Granule Humidity	Internal method	%	< 0,10		
Water Absorption (24h / +23°C)	ISO 62	%	0,8 - 0,9		
Water Absorption at Saturation	ISO 62	%	6,0		
Mould Shrinkage (Parallel)	Internal method	%	0,25 - 0,35		
Mould Shrinkage (Normal)	Internal method	%	0,6 - 0,8		
Melting temperature (DSC)	ISO 11357	°C	222		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	6	250°C - 2,16 kg	
MECHANICAL					
Tensile Modulus	ISO 527-1,2	MPa	5100	Speed 1 mm/min	Cond.
Tensile Modulus	ISO 527-1,2	MPa	8600	Speed 1 mm/min	Dry
Elongation at Break	ISO 527-1,2	%	9	Speed 50 mm/min	Cond.
Elongation at Break	ISO 527-1,2	%	3,6	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	95	Speed 50 mm/min	Cond.
Tensile Break Strength	ISO 527-1,2	MPa	140	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	3900	Speed 1 mm/min	Cond.
Flexural Modulus	ISO 178	MPa	7800	Speed 1 mm/min	Dry
Flexural Break Strength	ISO 178	MPa	125	Speed 1 mm/min	Cond.
Flexural Break Strength	ISO 178	MPa	200	Speed 1 mm/min	Dry

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IZOD Notched Impact (+23°C)	ASTM D256	J/m	280		Cond.
IZOD Notched Impact (+23°C)	ASTM D256	J/m	180		Dry
IZOD Notched Impact (+23°C)	ASTM D256	kJ/m^2	28		Cond.
IZOD Notched Impact (+23°C)	ASTM D256	kJ/m^2	17,5		Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	27		Cond.
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	16,5		Dry
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	95		Cond.
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	75		Dry
CHARPY Notched Impact (-30°C)	ISO 179/1eA	kJ/m^2	13,5		Dry
CHARPY Unnotched Impact (-30°C)	ISO 179/1eU	kJ/m^2	70		Dry

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	215	50°C / h	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	205	120°C / h	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	2,5x10E(-5)	-30°C /+30°C	Dry
Coefficient of linear thermal expansion (transversal)	ISO 11359-1,-2	K^-1	6,5x10E(-5)	-30°C /+30°C	Dry

FLAMMABILITY

Flame Behaviour (1,6 mm)	UL94	Class	HB		
Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	650		
Burning Rate (US-FMVSS 302)	ISO 3795	mm/min	< 80	Thickness > 1,5 mm	
Oxigen index	ASTM D2863	%	23		

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

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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 to Fast
Injection Pressure	40 - 100 Mpa
Packing Pressure	30 - 80 Mpa
Back Pressure	0,5 - 2,5 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

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