PRODUCT INFORMATION

TAROMID B 280 Z4

Polyamide 6 medium viscosity elastomer modified, very high impact resistance also at low temperature, very good chemical resistance to oils, solvents and other chemical substances.

ISO short	ISO 1043: PA6-I
Form	Pellets

Key Features

- Unfilled
- High mechanical properties
- Good impact - stiffness balance
- Improved impact resistance
- Suitable for injection moulding and extrusion applications
- Low flow

Availability

- White colour
- LP: laser printable
- L: UV stabilized
- HT: high resistance to heat
- H: heat stabilized
- DB: dry blend coloured
- All colours

Process

- INJECTION MOULDING
- EXTRUSION

Application

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

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	3x10exp(15)		

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Tracking Resistance (CTI - Method A)	IEC 60112	Volt	>600		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,06-1,08		
Granule Humidity	Internal method	%	<0,15		
Water Absorption (24h / +23°C)	ISO 62	%	0,6		
Water Absorption at Saturation	ISO 62	%	5,5		
Mould Shrinkage (Parallel)	Internal method	%	1,2-1,5		
Melting temperature (DSC)	ISO 11357	°C	220		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	4	250°C - 1 kg	
MECHANICAL					
Tensile Modulus	ISO 527-1,2	MPa	2000	Speed 1 mm/min	Dry
Tensile Yield Strength	ISO 527-1,2	MPa	55	Speed 50 mm/min	Dry
Elongation at Break	ISO 527-1,2	%	>150	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	50	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	1850	Speed 1 mm/min	Dry
IZOD Notched Impact	ASTM D256	J/m	800	+23°C	Dry
IZOD Notched Impact	ASTM D256	J/m	730	-20°C	Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	85		Dry
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	N.B.		Dry
CHARPY Unnotched Impact (-25°C)	ISO 179/1eU	kJ/m^2	N.B.		Dry
THERMAL					
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	150	50°C / h	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	60	120°C / h	
Ball Pressure Test	IEC 60695-10-2	°C	125		
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	7-x10exp(-5)	-30°C /+30°C	
FLAMMABILITY					
Flame Behaviour (0,97 mm)	UL94	Class	HB		

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EXTRUSION	Value
Drying Time (Desiccant Dryer)	2 - 4 hours
Drying Temperature (Desiccant Dryer)	80 - 90°C
Suggested Max Moisture	0,08%
Suggested Max Regrind	< 10%
Melt Temperature	240 - 260°C
Feed Temperature	225°C
Rear Temperature	230°C
Middle Temperature	240°C
Front Temperature	250°C
Die Temperature	245°C
Screw Revolving Speed	50 - 100 rpm
Screw L/D Ratio	25 to 30
Screw Compression Ratio	3:1 to 4:1

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.

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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 - 260°C
Feed Temperature	220°C
Rear Temperature	235°C
Middle Temperature	245°C
Front Temperature	250°C
Nozzle Temperature	245°C
Mould Temperature	70 - 80°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. 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.