PRODUCT INFORMATION

TAROMID B 280 S

Polyamide 6 medium viscosity, general purpose grade, fast cycles.

ISO short ISO 1043: PA6
Form Pellets

Key Features

- Fast cycling grade
- Designed for injection moulding applications

Availability

- Natural colour only
- FA: food approval

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					
Volume Resistivity	IEC 60093	Ohm cm	5x10exp(15)		
Dielectric Strength	IEC 60243-1	kV/mm	18	2 mm	
Dissipation Factor Frequency	IEC 60250	-	0,014		
Dielectric Constant	IEC 60250	-	3,60		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	>600		
Tracking Resistance (CTI - Method B)	IEC 60112	Volt	600M		
PHYSICAL					

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Density (+23°C)	ISO 1183	g/cm^3	1,13-1,14		
Granule Humidity	Internal method	%	<0,15		
Water Absorption (24h / +23°C)	ISO 62	%	2		
Water Absorption at Saturation	ISO 62	%	9		
Mould Shrinkage (Parallel)	Internal method	%	1,1-1,6		
Mould Shrinkage (Normal)	Internal method	%	1,1-1,6		
Melting temperature (DSC)	ISO 11357	°C	220		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	12	250°C - 1,2 kg	
MECHANICAL					
Tensile Modulus	ISO 527-1,2	MPa	2900	Speed 1 mm/min	Dry
Tensile Yield Strength	ISO 527-1,2	MPa	75	Speed 50 mm/min	Dry
Elongation at Break	ISO 527-1,2	%	100	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	64	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	2800	Speed 1 mm/min	Dry
Flexural Max Strength	ISO 178	MPa	110	Speed 1 mm/min	Dry
IZOD Notched Impact	ASTM D256	J/m	50	+23°C	Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	3,2		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 - 1 kg (VST/A/50)	ISO 306	°C	210	50°C / h	
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	200	50°C / h	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	74	120°C / h	
Ball Pressure Test	IEC 60695-10-2	°C	165		
Continuous service temperature (20.000 h)	UL746 B	°C	80		
Continuous service temperature (short term)	UL746 B	°C	100		
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	7-8x10exp(-5)	-30°C /+30°C	

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FLAMMABILITY

Flame Behaviour (0,97 mm)	UL94	Class	V2
Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	750
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 - 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.