PRODUCT INFORMATION

TAROMID A 280 G5

Polyamide 66 medium viscosity 25% glass fibres reinforced, good mechanical and thermal properties.

ISO short	ISO 1043: PA66-GF25
Form	Pellets
UL file	E143048

Key Features

- Good impact - stiffness balance
- 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

Compliance

- UL94 HB approved at 0,75 mm - NC (HW version only)

Process

- INJECTION MOULDING

Application

- Household
- Furniture
- Electronic
- Electrical
- Toys
- Sports
- Consumer
- Building
- Automotive

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	10E10		Cond.
Volume Resistivity	IEC 60093	Ohm cm	10E13		Dry
Dielectric Strength	IEC 60243-1	kV/mm	24	2 mm	

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Dissipation Factor Frequency	IEC 60250	-	1,5x10E(-2)	1 MHz	Cond.
Dissipation Factor Frequency	IEC 60250	-	1,5x10E(-4)	1 MHz	Dry
Dielectric Constant	IEC 60250	-	5,5	1 MHz	Cond.
Dielectric Constant	IEC 60250	-	3,5	1 MHz	Dry
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	500		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,32		
Filler content	ISO 3451	%	25	750°C - 1 h	
Filler type	ISO 1043	-	GF		
Granule Humidity	Internal method	%	0,1		
Water Absorption (24h / +23°C)	ISO 62	%	0,8		
Water Absorption at Saturation	ISO 62	%	5,5		
Mould Shrinkage (Parallel)	Internal method	%	0,4 - 0,5		
Mould Shrinkage (Normal)	Internal method	%	1,0 - 1,4		
Melting temperature (DSC)	ISO 11357	°C	256		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	12	280°C - 2,16 kg	
MECHANICAL					
Tensile Modulus	ISO 527-1,2	MPa	6500	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	%	6	Speed 50 mm/min	Cond.
Elongation at Break	ISO 527-1,2	%	3	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	110	Speed 50 mm/min	Cond.
Tensile Break Strength	ISO 527-1,2	MPa	150	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	6200	Speed 1 mm/min	Cond.
Flexural Modulus	ISO 178	MPa	8000	Speed 1 mm/min	Dry
Flexural Break Strength	ISO 178	MPa	190	Speed 1 mm/min	Cond.
Flexural Break Strength	ISO 178	MPa	235	Speed 1 mm/min	Dry

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IZOD Notched Impact (+23°C)	ISO 180/1A	kJ/m^2	14	Cond.
IZOD Notched Impact (+23°C)	ISO 180/1A	kJ/m^2	9	Dry
IZOD Notched Impact (+23°C)	ASTM D256	J/m	90	Dry
IZOD Notched Impact (0°C)	ASTM D256	J/m	40	Dry
IZOD Notched Impact (-25°C)	ASTM D256	J/m	10	Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	16	Cond.
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	11	Dry
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	85	Cond.
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	60	Dry
CHARPY Notched Impact (-30°C)	ISO 179/1eA	kJ/m^2	7,5	Dry
CHARPY Unnotched Impact (-30°C)	ISO 179/1eU	kJ/m^2	52	Dry

THERMAL

Softening Temperature - 1 kg (VST/A/50)	ISO 306	°C	250	
Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	245	50 °C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	240	120 °C / h
Deflection Temperature 0,45 MPa (HDT B)	ISO 75B	°C	250	
Ball Pressure Test	IEC 60695-10-2	°C	230	
Continuous service temperature (20.000 h)	UL746 B	°C	100 (130H/140HT)	
Continuous service temperature (short term)	UL746 B	°C	140 (160H/180HT)	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	3x10E(-5)	+23°C / +80°C
Coefficient of linear thermal expansion (transversal)	ISO 11359-1,-2	K^-1	6,5x10E(-5)	+23°C / +80°C
Thermal Conductivity	ISO 8302	W /(m K)	0,34	

FLAMMABILITY

Flame Behaviour (0,75 mm)	UL94	Class	HB	UL approved (HW version only)
Flame Behaviour (0,75 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

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Oxigen index	ASTM D2863	%	26

INJECTION MOULDING	Value
Drying Temperature (Circulating Air Oven)	80 - 90℃
Drying Temperature (Desiccant Dryer)	80 - 90℃
Drying Time (Circulating Air Oven)	3 - 6 hours
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	<0,08 %
Suggested Max Regrind	<15 %
Melt Temperature	270 - 300℃
Feed Temperature	100℃
Rear Temperature	275℃
Middle Temperature	285℃
Front Temperature	285℃
Nozzle Temperature	280℃
Mould Temperature	80 - 120℃
Injection Rate	Medium to fast (50 - 150 mm/sec)
Injection Pressure	80 - 130 Mpa
Packing Pressure	30 - 80 Mpa
Back Pressure	0,3 - 0,7 Mpa
Screw Revolving Speed	50 - 100 rpm
Cushion	2 - 6 mm
Screw L/D Ratio	18 - 22
Screw Compression Ratio	2:1 - 3:1
Vent Depth	0,02 mm

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