



PRODUCT INFORMATION

TAROMID A 280 G4 X0

Polyamide 66 medium viscosity, 20% glass fibres reinforced, flame retardant UL94 V0, very good flame proofing also at low thickness, heat stabilized, good processing and good mechanical properties.

ISO short Form ISO 1043: PA66-GF20 FR(17)
Form Pellets
UL file E143048

Key Features

- Designed for injection moulding applications
- Glass fibres reinforced
- Flame retardant

Availability

- W: lubricated
- L: UV stabilized
- H: heat stabilized
- All colours

Compliance

- UL94 V0 approved all colours at 0,88 mm. UL746 B approved.

Process

- INJECTION MOULDING

Application

- Electronic
- Electrical

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	10exp(15)		
Dielectric Strength	IEC 60243-1	kV/mm	24	2 mm	
Dissipation Factor Frequency	IEC 60250	-	0,020		
Dielectric Constant	IEC 60250	-	3,70		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	325		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm ³	1,40-1,42		
Filler content	ISO 3451	%	20	850°C - 1 h	
Granule Humidity	Internal method	%	<0,15		
Water Absorption (24h / +23°C)	ISO 62	%	0,75		
Water Absorption at Saturation	ISO 62	%	5,5		

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Mould Shrinkage (Parallel)	Internal method	%	0,4-0,7
Mould Shrinkage (Normal)	Internal method	%	0,6-0,9
Melting temperature (DSC)	ISO 11357	°C	250-256

MECHANICAL

Tensile Modulus	ISO 527-1,2	MPa	7600	Speed 1 mm/min	Dry
Elongation at Break	ISO 527-1,2	%	3,5	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	100	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	7000	Speed 1 mm/min	Dry
Flexural Break Strength	ISO 178	MPa	125	Speed 1 mm/min	Dry
IZOD Notched Impact	ASTM D256	J/m	46	+23°C	Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m ²	4		Dry

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	240	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	220	120°C / h
Ball Pressure Test	IEC 60695-10-2	°C	205	
Continuous service temperature (20.000 h)	UL746 B	°C	120	
Continuous service temperature (short term)	UL746 B	°C	180	
Continuous service temperature	UL746 B	°C	65	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K ⁻¹	3x10exp(-5)	-30°C /+30°C

FLAMMABILITY

Flame Behaviour (0,88 mm)	UL94	Class	V0	UL approved
Glow Wire Flammability Index-GWFI (1 mm)	IEC 60695-2-12	°C	960	
Glow Wire Ignition Temperature-GWIT (1 mm)	IEC 60695-2-13	°C	850	
Oxygen index	ASTM D2863	%	30	

INJECTION MOULDING

	Value
Drying Temperature (Desiccant Dryer)	80 - 90°C
Drying Time (Desiccant Dryer)	2 - 4 hours



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Suggested Max Moisture	< 0,08 %
Suggested Max Regrind	< 15 %
Melt Temperature	270 - 290°C
Feed Temperature	220°C
Rear Temperature	260°C
Middle Temperature	275°C
Front Temperature	280°C
Nozzle Temperature	275°C
Mould Temperature	80 - 100°C
Injection Rate	Medium
Packing Pressure	30 - 80 Mpa
Back Pressure	As low as possible (0,3 - 0,6 Mpa)
Screw Revolving Speed	50 - 100 rpm
Cushion	3 - 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.