



PRODUCT INFORMATION

TAROMID A 280 H G9 DX0 TR1

Polyamide 66 medium viscosity 45% glass fibres reinforced, flame retardant UL94 V0, heat stabilized, very good flame proofing also at low thickness. Very high mechanical and thermal properties, very low shrinkage and high dimensional stability, high tracking resistance.

ISO short Form ISO 1043: PA66-GF45 FR(17)
UL file Pellets
 E143048

Key Features

- High mechanical properties
- Designed for injection moulding applications
- Improved heat resistance
- Flame retardant

Availability

- W: lubricated
- Various colours

Compliance

- UL94 V0 approved - NC, BK at 0,75 mm - UL 746B approved - UL746 A CTI class 1

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	28	2 mm	
Dissipation Factor Frequency	IEC 60250	-	0,020		
Dielectric Constant	IEC 60250	-	3,70		
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	>400		
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm ³	1,61-1,63		
Filler content	ISO 3451	%	45	850°C - 1 h	
Granule Humidity	Internal method	%	<0,15		
Water Absorption (24h / +23°C)	ISO 62	%	0,4		

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Water Absorption at Saturation	ISO 62	%	3		
Mould Shrinkage (Parallel)	Internal method	%	0,15-0,30		
Mould Shrinkage (Normal)	Internal method	%	0,25-0,50		
Melting temperature (DSC)	ISO 11357	°C	250-256		

MECHANICAL

Tensile Modulus	ISO 527-1,2	MPa	12000	Speed 1 mm/min	Dry
Elongation at Break	ISO 527-1,2	%	1,5	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	170	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	11000	Speed 1 mm/min	Dry
Flexural Break Strength	ISO 178	MPa	230	Speed 1 mm/min	Dry
IZOD Notched Impact	ASTM D256	J/m	85	+23°C	Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m ²	8,5		Dry
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m ²	40		Dry

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	246	50°C / h	
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	244	120°C / h	
Ball Pressure Test	IEC 60695-10-2	°C	230		
Continuous service temperature (short term)	UL746 B	°C	180		
Continuous service temperature	UL746 B	°C	130	E,0,75 mm	
Continuous service temperature	UL746 B	°C	100	M. w/o imp. 0,75 mm	
Continuous service temperature	UL746 B	°C	130	M. w/o imp. 3 mm	
Continuous service temperature	UL746 B	°C	100	M. with imp. 0,75 mm	
Continuous service temperature	UL746 B	°C	130	M. with imp. 3 mm	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K ⁻¹	2x10exp(-5)	-30°C /+30°C	

FLAMMABILITY

Flame Behaviour (0,75 mm)	UL94	Class	V0	UL approved	
Flame Behaviour (1,6 mm)	UL94	Class	V0		

The listed data are in the normal range of product properties, they should not be used to establish specification nor as the basis of design. Values are valid for natural coloured version only.

Unless specified to the contrary, the given values have been established on standardized test specimens at room temperature. These values are for natural colour only. The figures should be regarded as guide values only and not as binding minimum values. Please note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mold/die, the processing conditions, pigments and any other additives.

All information, recommendation or technical advice provided by TARO PLAST S.p.A. are given in good faith but without warranty, to the best of its knowledge and based on current procedures in effect. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing methods and conditions of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely under your own responsibility.

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Flame Behaviour (3,2 mm)	UL94	Class	V0
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	875
Oxygen index	ASTM D2863	%	36

INJECTION MOULDING	Value
Drying Temperature (Desiccant Dryer)	80 - 90°C
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	< 0,08 %
Suggested Max Re grind	< 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.