

TECHNICAL DATA SHEET

TECHNYL PROTECT A 31T1 MZ40 GY 174N

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TECHNYL PROTECT A 31T1 MZ40 GY174N is a flame retardant polyamide 66 reinforced with 40% of mineral filler, heat stabilized, for injection moulding. This grade offers excellent flame retardancy properties (UL 94, GWIT) combined with excellent processing, mechanical and electrical performance.

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA66	
Colors available	grey	

Product identification

ISO 1043 abbreviation	PA66-MD40 FR(17)
ISO 16396 designation	PA66,MD40FR(17),M1,S14-070

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value
Density	ISO 1183	g/cm ³	1.67
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.7 - 0.8
Molding shrinkage, normal	ISO 294-4, 2577	%	0.9 - 1.0

Condition	Standard	Unit	Value
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Mechanical properties

Condition	Standard	Unit	Value	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	6900 / -
Stress at break		ISO 527-1/-2	MPa	70 / -
Strain at break		ISO 527-1/-2	%	1.6 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	25 / -

*: **conditioned according to ISO 1110**

Condition	Standard	Unit	Value
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Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	262
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Condition	Standard	Unit	Value
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Burning behaviour

Glow-wire flammability index, GWFI, 0.75 mm	0.75 mm	IEC 60695-2-12	°C	>= 960
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	>= 960
Glow-wire flammability index, GWFI, 3.0 mm			°C	>= 960
Oxygen index			%	46.0

Condition	Standard	Unit	Value
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Electrical properties

Comparative tracking index	Solution A	IEC 60112	V	400.0
Dielectric strength	1 mm	IEC 60243-1	kV/mm	30.0

Processing conditions

Drying temperature/time	80°C/4h
Suggested max moisture	0.2 %
Rear temperature	265 - 275 °C
Middle temperature	270 - 280 °C
Front temperature	280 - 290 °C
Recommended mould temperature	60 - 90 °C