

TECHNICAL DATA SHEET

TECHNYL PROTECT A 32G1 BK

TECHNYL A 32G1 BLACK

TECHNYL PROTECT A 32G1 BK is a polyamide 66 based on a brominated flame retardant system, unreinforced, heat stabilized, for injection molding.

General

Certifications	RoHS EC 1907/2006 (REACH)	UL listed product
Polymer type	PA66	
Feature	flame retarded	heat-aging stabilized
Applications	connectors	electrical/electronic applications
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66 FR(20)
ISO 16396 designation	PA66,FR(20),M1,S14-030

Condition	Standard	Unit	Value
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Physical properties

		Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.35
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.7
Water absorption	24 hr, 23°C	ISO 62	%	0.75
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.5
Molding shrinkage, normal		ISO 294-4, 2577	%	1.6

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	2700 / -
Stress at break		ISO 527-1/-2	MPa	52 / -
Strain at break		ISO 527-1/-2	%	8 / -
Yield stress		ISO 527-1/-2	MPa	54 / -
Yield strain		ISO 527-1/-2	%	5 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2900 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	100 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	55 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	4 / -

***: conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	257
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	204
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	73

Condition	Standard	Unit	Value
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Burning behaviour

UL Yellow Card availability 1	Click here to have access to the UL Yellow Card availability 1 -> QMFZ2.E44716			
Flammability, 0.75 mm	0.75 mm	UL 94		V2
Flammability, 1.5 mm	1.5 mm	UL 94		V2
Flammability, 3.0 mm	3.0 mm	UL 94		V2
Glow-wire flammability index, GWFI, 0.75 mm	0.75 mm	IEC 60695-2-12	°C	900
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	900
Glow-wire ignition temperature, GWIT, 0.75 mm	0.75 mm	IEC 60695-2-13	°C	875
Glow-wire ignition temperature, GWIT, 1.5 mm	1.5 mm	IEC 60695-2-13	°C	900

Condition	Standard	Unit	Value
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Electrical properties

Comparative tracking index	Solution A	IEC 60112	V	400.0
CTI performance level category		Sol A		PLC 1
Dielectric strength	1 mm	IEC 60243-1	kV/mm	39.0

Processing conditions

Drying temperature/time	80
Suggested max moisture	0.12 %
Rear temperature	270 °C
Middle temperature	260 - 280 °C
Front temperature	270 - 290 °C
Recommended mould temperature	60 - 80 °C