

TECHNYL® PROTECT

Flame retardants

TECHNICAL DATA SHEET

TECHNYL PROTECT A 32G1 BK

(Previously 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

Feature	Flame retarded	Heat-aging stabilized
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS EC 1907/2006 (REACH)	UL-Yellow Card
Applications	Connectors	Electrical/Electronic Applications
Colors available	Black	
Forms	Pellets	

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

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

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Condition	Standard	Unit	Value
Mechanical properties			
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa
Stress at break		ISO 527-1/-2	MPa
Strain at break		ISO 527-1/-2	%
Yield stress		ISO 527-1/-2	MPa
Yield strain		ISO 527-1/-2	%
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²
Thermal properties			
Melting temperature, 10°C/min		ISO 11357-1	°C
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C
Electrical properties			
Comparative tracking index	Solution A	IEC 60112	V
CTI performance level category		Sol A	
Dielectric strength	1 mm	IEC 60243-1	kV/mm
Burning behaviour			
UL Yellow Card availability 	Click here to have access to the UL Yellow Card → QMFZ2.E44716		
Flammability, 0.75 mm	0.75 mm	UL 94	
Flammability, 1.5 mm	1.5 mm	UL 94	
Flammability, 3.0 mm	3.0 mm	UL 94	
Glow-wire flammability index, GWFI, 0.75 mm	0.75 mm	IEC 60695-2-12	°C
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C
Glow-wire ignition temperature, GWIT, 0.75 mm	0.75 mm	IEC 60695-2-13	°C
Glow-wire ignition temperature, GWIT, 1.5 mm	1.5 mm	IEC 60695-2-13	°C

*: conditioned according to ISO 1110

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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

Disclaimer

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