

TECHNYL® PROTECT

Flame retardants

DOMO

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TECHNICAL DATA SHEET

TECHNYL PROTECT A 50X2 BK XB

DOMAMID FR 66/6V0M BKXB



TECHNYL A 50X2 BK XB is an unreinforced flame retardant polyamide blend of polyamide 6.6 and 6, heat stabilized, for injection moulding. This halogen free flame retardant grade is UL94 V0 at 0,4mm and offers good Glow Wire and CTI performances.

General

Certifications	RoHS EC 1907/2006 (REACH)	UL listed product
Polymer type	PA66 + PA6	
Feature	halogen and red phosphorus free flame retardant UL 94 V0	heat-aging stabilized
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66+PA6 FR(30)
ISO 16396 designation	PA66+PA6,FR(30),,S14-040

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value
Density	ISO 1183	g/cm ³	1.16
Molding shrinkage, parallel	ISO 294-4, 2577	%	1.0 - 1.2
Molding shrinkage, normal	ISO 294-4, 2577	%	1.0 - 1.2

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3300 / 1500
Strain at break	50 mm/min	ISO 527-1/-2	%	13 / 45
Yield stress	50 mm/min	ISO 527-1/-2	MPa	70 / 40
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2700 / 1100
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	100 / 45
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	60 / NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	4 / 9
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	40 / NB
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	4 / 9

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	200
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	75
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	215

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.E170540			
Flammability, 0.40 mm	0.40 mm	UL 94		V0
Flammability, 0.75 mm	0.75 mm	UL 94		V0
Flammability, 1.5 mm	1.5 mm	UL 94		V0
Flammability, 3.0 mm	3.0 mm	UL 94		V0
Glow-wire flammability index, GWFI, 0.40 mm	0.40 mm	IEC 60695-2-12	°C	960
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
Glow-wire ignition temperature, GWIT, 0.40 mm	0.40 mm	IEC 60695-2-13	°C	960
Glow-wire ignition temperature, GWIT, 0.75 mm	0.75 mm	IEC 60695-2-13	°C	960
Glow-wire ignition temperature, GWIT, 1.5 mm	1.5 mm	IEC 60695-2-13	°C	850
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
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Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E16
Surface resistivity		IEC 62631-3-1	ohm	1.0E14
Comparative tracking index	Solution A	IEC 60112	V	600.0
CTI performance level category		Sol A		PLC 0

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
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Processing conditions

Recommended melt temperature	260 - 280 °C
Recommended mould temperature	60 - 80 °C

Injection notes

The material is supplied in airtight bags, ready for use.,In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C.,Recommended time 2-4h.