TECHNICAL DATA SHEET

TECHNYL PROTECT A 50X2 NC XB

(Previously DOMAMID FR 66/6V0M)

Polyamide 66/6, heat-aging stabilized, halogen and red phosphorus free flame retardant, for injection moulding

General

Feature	UL V0 Heat-aging stabilized	Halogen and red phosphorus free flame retardant
Polymer type	PA66/6 copolymer	
Processing technology	Injection molding	
Certification	RoHS	UL-Yellow Card

Product identification

ISO 1043 abbreviation	PA66/6 FR(30)
ISO 16396 designation	PA66/6,FR(30),M1H,S14-040

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.16
Molding shrinkage, parallel	72 hr, 23°C, 50% RH	ISO 294-4, 2577	%	1 - 1.2
Molding shrinkage, normal	72 hr, 23°C, 50% RH	ISO 294-4, 2577	%	1 - 1.2
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3600 / 1600
Strain at break	50 mm/min	ISO 527-1/-2	%	15 / 50
Yield stress	50 mm/min	ISO 527-1/-2	MPa	80 / 45
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	3300 / 1450
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	120 / 55
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	80 / NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	4 / 9
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	3.5 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	70 / NB
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	3.5 / 9

TECHNICAL DATA SHEET **TECHNYL PROTECT A 50X2 NC XB**

	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
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+016
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Comparative tracking index	Solution A	IEC 60112	V	600
Burning behaviour				
UL Yellow Card availability	Click here to have access to the UL Yellow Card → E170540-100221782			
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	3.0 mm	IEC 60695-2-12	°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

Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for natural colored products.
**: conditioned according to ISO 1110*

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	260 - 280 °C
Recommended mould temperature	60 - 80 °C

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

Disclaimer

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufactures in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.