

TECHNYL® PROTECT

Flame retardants

TECHNICAL DATA SHEET

TECHNYL PROTECT C 52G2 GY 7504

(Previously DOMAMID 6LVGT85 GY77504)

Polyamide 6 unfilled, for fire and electrical overall properties, with improved flowability, for injection moulding

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General

Feature	UL V2	Improved flowability
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	UL-Yellow Card

Product identification

ISO 1043 abbreviation	PA6PA6 FR(30)
ISO 16396 designation	PA6,M1,S12-030

Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.14
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.8 - 1
Molding shrinkage, normal		ISO 294-4, 2577	%	1 - 1.2
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	225
Viscosity number	96% H ₂ SO ₄	ISO 307	cm ³ /g	125

Mechanical properties

dam / cond.*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3300 / -
Strain at break	50 mm/min	ISO 527-1/-2	%	40 / -
Yield stress	50 mm/min	ISO 527-1/-2	MPa	85 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2800 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	105 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	NB / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	4 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	NB / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	4 / -
Rockwell hardness		ISO 2039/2	ScaleR	121 / -

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Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	180
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	70
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	205

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
CTI performance level category		Sol A		PLC 0

Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → QMFZ2.E170540			
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	1-3 mm	IEC 60695-2-12	°C	850
Glow-wire ignition temperature, GWIT	1-3 mm	IEC 60695-2-13	°C	725
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	230 - 250 °C		
Recommended mould temperature	40 - 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.

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DOMO
caring is our formula

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