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TECHNYL® PROTECT

Flame retardants



TECHNICAL DATA SHEET

TECHNYL PROTECT A 30H1 V25 A BK

(Previously DOMAMID FR 66G25V0AH1)

Polyamide 66, 25% glass fiber reinforced, heat-aging stabilized, halogenated flame retardant, for injection moulding

General

Feature	UL VO Halogenated flame retardant Heat-aging stabilized	
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	UL-Yellow Card

Product identification

ISO 1043 abbreviation	PA66-GF25 FR(17)
ISO 16396 designation	PA66,GF25FR(17),M1H,S14-090

Physical properties			
Density	ISO 1183	g/cm³	1.56
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.2 - 0.4
Molding shrinkage, normal	ISO 294-4, 2577	%	0.7 - 0.9

Mechanical properties			dam / cond.*	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9500 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	130 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	2.2 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8800 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	205 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	45 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	8.5 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	40 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	8/-

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	Condition			
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	250
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	240
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	240

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	350
CTI performance level category		Sol A		PLC 2

Burning behaviour

UL Yellow Card availability 🕕	Click here to have access to the UL Yellow Card $ ightarrow$ E17			'ellow Card → <u>E170540-225458</u>
Flammability, 0.75 mm	0.75 mm	UL 94		VO
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	960
Glow-wire ignition temperature, GWIT	1-3 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	$75-85^{\circ}\text{C}$ / 2-4h (with dew point of dried air < -30 $^{\circ}\text{C}$)	
Recommended melt temperature	270 - 290 °C	
Recommended mould temperature	80 - 100 °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

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