

TECHNICAL DATA SHEET

TECHNYL PROTECT AT 20 V25 P BK 9190
(Previously DOMAMID FR 66G25VOP1A BK99190)

Polyamide 66/PET, 25% glass fiber reinforced, heat-aging stabilized, red phosphorous flame retardant, for injection moulding

General

Feature	UL V0 Red phosphorous flame retardant	Heat-aging stabilized
Polymer type	(PA66 + PET) blend	
Processing technology	Injection molding	
Certification	RoHS	UL-Yellow Card

Product identification

ISO 1043 abbreviation	PA66+PET-GF25 FR(52)
ISO 16396 designation	PA66+PET,GF25FR(52),M1H,S14-080

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.36
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.4 - 0.6
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm³/10 min	28
Viscosity number	96% H2SO4	ISO 307	cm³/g	145

Mechanical properties

				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	8500 / 6200
Stress at break	5 mm/min	ISO 527-1/-2	MPa	150 / 110
Strain at break	5 mm/min	ISO 527-1/-2	%	3.5 / 5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7500 / 5600
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	210 / 160
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	70 / 75
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	10 / 15
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	55 / 65
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	9 / 14

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	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	250
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	230
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	245

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	575
CTI performance level category		Sol A		PLC 1

Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → E170540-101492181			
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
Oxygen index			%	27
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).
*: 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	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.

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