

TECHNICAL DATA SHEET

TECHNYL PROTECT C 60G1 V15 BK
DOMAMID FR 6G15V0E BK



Polyamide 6, 15% glass fiber reinforced, halogen and red phosphorus free flame retardant, heat-aging stabilized, for injection moulding

General

Certifications	RoHS	UL listed product
Polymer type	PA6	
Feature	halogen and red phosphorus free flame retardant UL 94 V0	heat-aging stabilized
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF15 FR(40)
ISO 16396 designation	PA6,GF15FR(40),MH,S14-060

Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.28
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3 - 0.5
Molding shrinkage, normal		ISO 294-4, 2577	%	0.5 - 0.7
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	145.0

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	6500 / 4400
Stress at break	5 mm/min	ISO 527-1/-2	MPa	105 / 60
Strain at break	5 mm/min	ISO 527-1/-2	%	4 / 5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	5800 / 3600
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	150 / 100
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	42 / 52
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	6.5 / 12
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	38 / 46
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	6 / 11

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
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	205
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	190
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	200

	Condition	Standard	Unit	Value
Burning behaviour				
UL Yellow Card availability 1	<u>Click here to have access to the UL Yellow Card availability 1 -> E170540-532327</u>			
Flammability, 0.75 mm	0.75 mm	UL 94		V0
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	750
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)
Recommended melt temperature	240 - 270 °C
Recommended mould temperature	80 - 100 °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.