

TECHNICAL DATA SHEET

TECHNYL PROTECT C 60 MX10 V10 BK
DOMAMID FR 6GT2010V0E BK



Polyamide 6, 20% glass fiber and mineral filler, heat-aging stabilized, halogen and red phosphorus free flame retardant, for injection moulding

General

Polymer type	PA6	
Certifications	RoHS EC 1907/2006 (REACH)	UL listed product
Feature	flame retarded heat-aging stabilized	halogen and red phosphorus free flame retardant UL 94 V0
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-(GF10+MD10) FR(40)
ISO 16396 designation	PA6,(GF+MD)20FR(40),MH,S14-080

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value
Density	ISO 1183	g/cm ³	1.37
Humidity absorption	T=23°C, 50% RH (equivalent ISO 1110)	%	2.2
Water absorption	24 hr, 23°C, immersion in water, thickness 2mm	%	1.4
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.3 - 0.5
Molding shrinkage, normal	ISO 294-4, 2577	%	0.7 - 0.9

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	7500 / 4000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	90 / 55
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 6.4
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	6500 / 3150
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	140 / 90
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	40 / 40
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	6 / 9
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	35 / 35
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	5 / 8

*: **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	218
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	203
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	208

Condition	Standard	Unit	Value
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Burning behaviour

UL Yellow Card availability 1	<u>Click here to have access to the UL Yellow Card availability 1 -> YC File Number: E170540</u>			
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, 3.0 mm			°C	960
Glow-wire ignition temperature, GWIT, 3.0 mm	3.0 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	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E13
Comparative tracking index	Solution A	IEC 60112	V	575.0
CTI performance level category		Sol A		PLC 1

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)			
Recommended melt temperature	240 - 260 °C			
Recommended mould temperature	70 - 90 °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.