

TECHNICAL DATA SHEET

**TECHNYL PROTECT A 30G1 A GN 6023**  
**DOMAMID FR 66V0A**



Polyamide 66, halogenated flame retardant, heat-aging stabilized, for injection moulding

**General**

Polymer type	PA66		
Certifications	RoHS EC 1907/2006 (REACH)	UL listed product	
Feature	heat-aging stabilized halogen free flame retardant GWIT > 800°C	UL 94 V0 GWFI 960°C	
Applications	electrical/electronic applications		
Forms	pellets		
Processing technology	injection moulding		

**Product identification**

ISO 1043 abbreviation	PA66 FR(17)
ISO 16396 designation	PA66,FR(17),MH,S14-030

Condition	Standard	Unit	Value
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**Physical properties**

Condition	Standard	Unit	Value
Density	ISO 1183	g/cm <sup>3</sup>	1.38
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.9 - 1.1
Molding shrinkage, normal	ISO 294-4, 2577	%	1.0 - 1.2

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3500 / -
Strain at break	50 mm/min	ISO 527-1/-2	%	15 / -
Yield stress	50 mm/min	ISO 527-1/-2	MPa	75 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	3000 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	100 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	120 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	6 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	110 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	5 / -

\*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	262
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	90
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	230

Condition	Standard	Unit	Value
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### Burning behaviour

UL Yellow Card availability 1	<a href="#"><b>Click here to have access to the UL Yellow Card availability 1 -&gt; E170540-100711591</b></a>			
Flammability, 0.75 mm	0.75 mm	UL 94		V0
Flammability, 3.0 mm	3.0 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	850
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	350.0
CTI performance level category		Sol A		PLC 2

### Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)			
Suggested max moisture	0.2 %			
Recommended melt temperature	270 - 290 °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.