

TECHNICAL DATA SHEET

## TECHNYL A 239 V35 BK

### DOMAMID 66G35H1 500 BK

Polyamide 66, 35% glass fiber reinforced, heat-aging stabilized, improved impact resistance, for injection moulding

#### General

Certifications	RoHS	UL listed product
Polymer type	PA66	
Feature	impact modified	organic heat stabilized
Processing technology	injection moulding	

#### Product identification

ISO 1043 abbreviation	PA66-I-GF35
ISO 16396 designation	PA66-I,GF35,MH,S14-100

Condition	Standard	Unit	Value
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#### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.38
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.9 - 2.1
Water absorption	24 hr, 23°C	ISO 62	%	0.75
Water absorption, saturation			%	4.9

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9700 / 8000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	175 / 135
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8500 / 7000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	260 / 205
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	80 / 95
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	14 / 20
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	75 / 90
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	13 / 18

\*: **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	255
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	250
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	250

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
UL Yellow Card availability 1	<b><u><a href="#">Click here to have access to the UL Yellow Card availability 1 -&gt; E170540-225461</a></u></b>			
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB
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	500.0
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	270 - 290 °C
Recommended mould temperature	90 - 110 °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.

## Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.