

TECHNICAL DATA SHEET

TECHNYL A 236SI V12 BK

DOMAMID 66G12IK1 BK

Polyamide 66, 12% glass fiber reinforced, low temperature impact modified, for injection moulding

General

Certifications	RoHS	UL listed product
Polymer type	PA66	
Feature	impact modified low temperature impact resistant	high impact resistant
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66-I-GF12
ISO 16396 designation	PA66,GF12,MP,S14-040

Condition	Standard	Unit	Value
-----------	----------	------	-------

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.17
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.5 - 0.7
Molding shrinkage, normal		ISO 294-4, 2577	%	1.0 - 1.2
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	4100 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	100 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	4 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	3500 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	135 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	65 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	11 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	55 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	11 / -

*: **conditioned according to ISO 1110**

	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	245
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

	Condition	Standard	Unit	Value
Burning behaviour				
UL Yellow Card availability 1	<u>Click here to have access to the UL Yellow Card availability 1 -> E170540-469778</u>			
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	>= 650
Glow-wire ignition temperature, GWIT	1-3 mm	IEC 60695-2-13	°C	675
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
-----------	----------	------	-------

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	400.0

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.