

TECHNICAL DATA SHEET

TECHNYL A 219 MT40 BK

DOMAMID 66M40H1

Polyamide 66, 40% mineral filler, heat-aging stabilized, for injection moulding

General

Polymer type	PA66
Certifications	RoHS
Feature	heat-aging stabilized organic heat stabilized
Processing technology	injection moulding

Product identification

ISO 1043 abbreviation	PA66-MD40
ISO 16396 designation	PA66,MD40,MH,S14-060

Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.47
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.8 - 1.9
Water absorption	24 hr, 23°C	ISO 62	%	0.5 - 0.6
Water absorption, saturation			%	4.0

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	6000 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	90 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	6 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	5800 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	140 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	100 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	5.5 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	80 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	5.5 / -

***: 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	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	180
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	245

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 0.75 mm	0.75 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

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	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.

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.