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DOMO caring is our formula

TECHNICAL DATA SHEET

TECHNYL C 219M NC

DOMAMID 6I1H1

Polyamide 6, heat-aging stabilized, impact modified, for injection moulding

General

Certifications	RoHS	
Polymer type	PA6	
Feature	heat-aging stabilized organic heat stabilized	impact modified
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-I
ISO 16396 designation	PA6,MPH,S14-030

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.12
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.8 - 3.2
Water absorption	24 hr, 23°C	ISO 62	%	1.8 - 2.0
Water absorption, saturation			%	9.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.1 - 1.3
Molding shrinkage, normal		ISO 294-4, 2577	%	1.4 - 1.6

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	2800 / 1000
Stress at break		ISO 527-1/-2	MPa	40 / -
Strain at break	50 mm/min	ISO 527-1/-2	%	12 / 50
Yield stress	50 mm/min	ISO 527-1/-2	MPa	70 / 40
Yield strain		ISO 527-1/-2	%	5 / 20
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2400 / 900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	90 / 30
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	NB
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	10 / 35
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	10 / 9
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	NB
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	15 / 75
Rockwell hardness		ISO 2039/2	ScaleR	110 / -

: 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	155
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	60
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	190

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Burning behaviour

	Condition	Standard	Unit	Value
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Electrical properties

	Condition	Standard	Unit	Value
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	600.0
CTI performance level category		Sol A		PLC 0

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Rear temperature	240 - 260 °C
Middle temperature	250 - 270 °C
Front temperature	260 - 280 °C
Recommended melt temperature	240 - 280 °C
Recommended mould temperature	60 - 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.

Injection advice

For unfilled polyamides, Domo recommends the use of high alloy steel with a low chromium content. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (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.