

TECHNICAL DATA SHEET

## TECHNYL C 246SI NC

### DOMAMID 6IK4

Polyamide 6, low temperature impact modified, for injection moulding

#### General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	impact modified	
Colors available	black	natural
Forms	pellets	
Processing technology	injection moulding	

#### Product identification

ISO 1043 abbreviation	PA6-I
ISO 16396 designation	PA6-I,M,S14-020

Condition	Standard	Unit	Value
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#### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.06
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.3 - 1.5
Molding shrinkage, normal		ISO 294-4, 2577	%	1.7 - 1.9
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	145.0

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	1850 / 800
Strain at break	50 mm/min	ISO 527-1/-2	%	50 / 50
Yield stress	50 mm/min	ISO 527-1/-2	MPa	45 / 30
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	1600 / 700
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	NB
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	70 / 120
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	24 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	NB
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	70 / 120
Izod notched impact strength, -30°C	-30°C	ISO 180/1A	kJ/m <sup>2</sup>	22 / -
Rockwell hardness		ISO 2039/2	ScaleR	100 / -

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

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	135
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	50
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	170

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
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	240 - 260 °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.