

## TECHNICAL DATA SHEET

### TECHNYL C 246SI NC

(Previously DOMAMID 6IK4)

Polyamide 6, low temperature impact modified, for injection moulding

#### General

Feature	Low temperature impact modified
Polymer type	PA6 (Polyamide 6)
Processing technology	Injection molding
Certification	RoHS

#### Product identification

ISO 1043 abbreviation	PA6-I
ISO 16396 designation	PA6-I,M1,S14-020

#### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.06
Molding shrinkage, parallel	72 hr, 23°C, 50% RH	ISO 294-4, 2577	%	1.3 - 1.5
Molding shrinkage, normal	72 hr, 23°C, 50% RH	ISO 294-4, 2577	%	1.7 - 1.9
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	145

#### Mechanical properties

				dam / cond.*
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		NB / NB
Charpy impact strength, -30°C	-30°C	ISO 179/1eU		NB / 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		NB / 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 / -

Condition	Standard	Unit	Value
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## 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	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

## Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013

## Burning behaviour

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

Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for natural colored products.

\*: conditioned according to ISO 1110

## 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

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

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