

TECHNICAL DATA SHEET

TECHNYL SHAPE C 402 NC
(Previously DOMAMID 6HV NC01)

Polyamide 6, high viscosity, for injection moulding

General

Feature	High viscosity	
Polymer type	PA6 (Polyamide 6)	
Processing technology	Extrusion	Injection molding
Certification	RoHS	EC 1907/2006 (REACH)
Colors available	Natural	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6
ISO 16396 designation	PA6,M1,S27-030

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	1.14
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	245

Mechanical properties

				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3000 / -
Strain at break	50 mm/min	ISO 527-1/-2	%	50 / -
Yield stress	50 mm/min	ISO 527-1/-2	MPa	80 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2600 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	6 / -
Rockwell hardness		ISO 2039/2	ScaleR	120 / -

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	180
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	70
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	205

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Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013
Comparative tracking index	Solution A	IEC 60112	V	600
CTI performance level category		Sol A		PLC 0

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	230 - 250 °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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