

TECHNICAL DATA SHEET

TECHNYL C 219L1 NC XB

(Previously DOMAMID 6H1UV1 NCXB)

Polyamide 6, heat-aging stabilized, UV-stabilized, for injection moulding

General

Feature	Heat-aging stabilized
Polymer type	PA6 (Polyamide 6)
Processing technology	Injection molding
Certification	RoHS

Product identification

ISO 1043 abbreviation	PA6
ISO 16396 designation	PA6,M1HL1,S14-030

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	1.14
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.9 - 1.1
Molding shrinkage, normal		ISO 294-4, 2577	%	1 - 1.2
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	165
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	145

Mechanical properties

				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3200 / 1000
Strain at break	50 mm/min	ISO 527-1/-2	%	40 / 50
Yield stress	50 mm/min	ISO 527-1/-2	MPa	80 / 40
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2800 / 900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	105 / 35
Charpy impact strength, +23°C	+23°C	ISO 179/1eU		NB / NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	4.5 / 20
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 ²	4.5 / 19
Rockwell hardness		ISO 2039/2	ScaleR	120 / -

	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	175
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	65
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	200

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		V2
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	750 - 850
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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