

TECHNICAL DATA SHEET

TECHNYL C 236L1 NC

(Previously DOMAMID 6I1UV1 575)

Polyamide 6, UV-stabilized, impact modified, for injection moulding

General

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

Product identification

ISO 1043 abbreviation	PA6-I
ISO 16396 designation	PA6-I,M1L1,S14-020

Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.11
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.1 - 1.3
Molding shrinkage, normal		ISO 294-4, 2577	%	1.4 - 1.6
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	145

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	2500 / 1000
Strain at break	50 mm/min	ISO 527-1/-2	%	50 / 50
Yield stress	50 mm/min	ISO 527-1/-2	MPa	65 / 35
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2300 / 900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	90 / 30
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 ²	16 / 70
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	9 / 8
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	14 / 60
Rockwell hardness		ISO 2039/2	ScaleR	110 / -

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

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+016
Surface resistivity		IEC 62631-3-1	ohm	1E+014

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)
Suggested max moisture	0.2 %
Rear temperature	240 - 260 °C
Middle temperature	250 - 270 °C
Front temperature	260 - 280 °C
Recommended melt temperature	240 - 280 °C
Recommended mould temperature	70 - 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.

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.

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