

TECHNICAL DATA SHEET

## TECHNYL C 216ML1 NC

### DOMAMID 6UV1 500 NC

Polyamide 6, UV-stabilized, improved impact resistance, for injection moulding, natural color

#### General

Polymer type	PA6
Certifications	RoHS
Feature	impact modified not heat stabilized
	UV stabilized
Processing technology	injection moulding

#### Product identification

ISO 1043 abbreviation	PA6-I
ISO 16396 designation	PA6,MPL1,S14-030

Condition	Standard	Unit	Value
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#### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.12
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.8 - 3.2
Water absorption	24 hr, 23°C	ISO 62	%	1.8 - 2.0
Water absorption, saturation			%	9.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.4 - 1.6
Molding shrinkage, normal		ISO 294-4, 2577	%	1.4 - 1.6
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm <sup>3</sup> /10 min	50.0
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	3000 / -
Stress at break	50 mm/min	ISO 527-1/-2	MPa	45 / -
Strain at break	50 mm/min	ISO 527-1/-2	%	30 / -
Yield stress	50 mm/min	ISO 527-1/-2	MPa	75 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2600 / -
Charpy impact strength, +23°C	+23°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>	6 / -

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

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	221

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

	Condition	Standard	Unit	Value
<b>Electrical properties</b>				
Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E14

<b>Processing conditions</b>	
Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	240 - 280 °C
Recommended mould temperature	60 - 80 °C

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## 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.