

TECHNICAL DATA SHEET

## TECHNYL C 236 V30 NC

### DOMAMID 6G30 500 NC

Polyamide 6, 30% glass fiber reinforced, improved impact resistance, for injection moulding

#### General

Polymer type	PA6		
Certifications	RoHS	EC 1907/2006 (REACH)	
Feature	impact modified		
Colors available	black	natural	
Forms	pellets		
Processing technology	injection moulding		

#### Product identification

ISO 1043 abbreviation	PA6-I-GF30		
ISO 16396 designation	PA6,GF30,PM,S14-090		

Condition	Standard	Unit	Value
-----------	----------	------	-------

#### Physical properties

Property	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.34
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.2 - 2.4
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Water absorption, saturation			%	5.3
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3 - 0.5
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1.1
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm <sup>3</sup> /10 min	35.0
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	9200 / 5000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	170 / 90
Strain at break	5 mm/min	ISO 527-1/-2	%	3.5 / 8.2
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8000 / 4900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	265 / 220
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	90 / 110
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	78 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	18 / 30
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	14 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	80 / 100
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	17 / 30

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

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	215
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	200
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	210

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
-----------	----------	------	-------

## Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E16
Surface resistivity		IEC 62631-3-1	ohm	1.0E14
Comparative tracking index	Solution A	IEC 60112	V	500.0
CTI performance level category		Sol A		PLC 1

## Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Suggested max moisture	0.2 %
Recommended melt temperature	240 - 270 °C
Recommended mould temperature	60 - 90 °C

## 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 reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (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.