TECHNYL®

DOMO caring is our formula

TECHNICAL DATA SHEET

TECHNYL C 216 MT30 NC

(Previously DOMAMID 6M30 NC)

TECHNYL C 216 MT30 NC is a polyamide 6, reinforced with 30% of mineral filler, for injection moulding. The isotropic shrinkage and the good dimensional stability make it adequate for every kind of application in which the planarity of the part is important.

General

Feature	High dimensional stability	Low warpage
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-MD30
ISO 16396 designation	PA6,MD30,M1,S14-050

Physical properties	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.36
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.85 - 1.05
Molding shrinkage, normal		ISO 294-4, 2577	%	0.8 - 1
Viscosity number	96% H2SO4	ISO 307	cm³/g	145

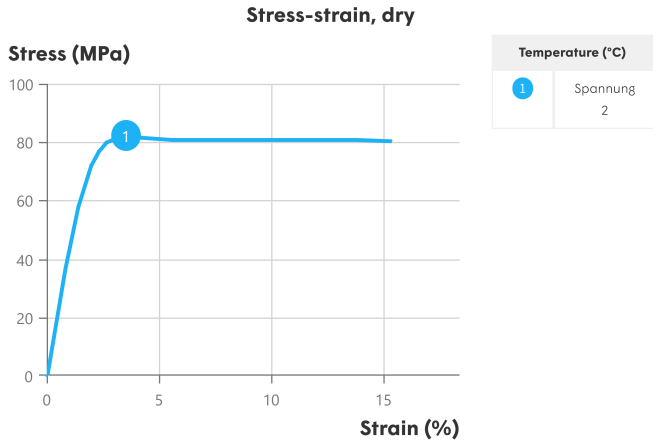
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	5000 / 2500
Stress at break	5 mm/min	ISO 527-1/-2	MPa	80 / 45
Strain at break	5 mm/min	ISO 527-1/-2	%	15 / 55
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	4400 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	120 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	75 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	5 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	70 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	5 / -

	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	185
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	200
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013
Dielectric strength	1 mm	IEC 60243-1	kV/mm	25
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	240 - 280 °C
Recommended mould temperature	90 - 120 °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 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.

Disclaimer

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