TECHNYL®

DOMO caring is our formula

TECHNICAL DATA SHEET

TECHNYL C 216S V30 NC

DOMAMID HCE 6G30 NC

TECHNYL C 216S V30 NC has been developped especially for gas molding and for those applications requiring painting, chrome plating or high quality surface aspect.

General

Polymer type	PA6	
Certifications	RoHS	EC 1907/2006 (REACH)
Feature	outstanding surface finish	not heat stabilized
Applications	automotive applications	consumer applications
Colors available	black	natural
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,M,S14-100

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.36
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.2 - 2.4
Water absorption	24 hr, 23°C	ISO 62	%	1.4 - 1.5
Water absorption, saturation			%	6.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	0.7 - 0.9
Viscosity number	96% H2SO4	ISO 307	cm³/g	145.0

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 6500
Stress at break	5 mm/min	ISO 527-1/-2	MPa	185 / 120
Strain at break	5 mm/min	ISO 527-1/-2	%	3.5 / 5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8600 / 5500
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	275 / 175
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	90 / 110
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	15 / 28
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	80 / 95
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	15 / 30

: conditioned according to ISO 1110

	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	220
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	215

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	>= 650
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

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	Condition	Standard	Unit	Value

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E13
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)
Rear temperature	230 - 240 °C
Middle temperature	240 - 250 °C
Front temperature	250 - 270 °C
Recommended melt temperature	230 - 270 °C
Recommended mould temperature	90 - 100 °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.