TECHNYL®

DOMO caring is our formula

TECHNICAL DATA SHEET

TECHNYL C 216S V50 NC

(Previously DOMAMID HCE 6G50 NC)

Polyamide 6, 50% glass fiber reinforced, improved surface finish, for injection moulding

TECHNYL C 216S V50 NC has been developped especially for gas molding and for those applications requiring painting, chrome plating or high quality surface aspect. This material is polyamide 6 based compound, glass fiber reinforced 30%, with an amorphous PA matrix.

General

Feature	Outstanding surface finish	
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications	Consumer good application
Colors available	Black	Natural
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6-GF50
ISO 16396 designation	PA6,GF50,M1,S14-160

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.56
Water absorption	24 hr, 23°C	ISO 62	%	4
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.1 - 0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.3 - 0.5
Viscosity number	96% H2SO4	ISO 307	cm³/g	145

	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	17000 / 12500
Stress at break	5 mm/min	ISO 527-1/-2	MPa	240 / 170
Strain at break	5 mm/min	ISO 527-1/-2	%	2.5 / 3.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	15500 / 10000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	330 / 225
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	100 / 105
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	21 / 25
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	95 / 100
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	20 / 25
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	210
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	215
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013
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

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)
Rear temperature	260 - 270 °C
Middle temperature	260 - 280 °C
Front temperature	260 - 280 °C
Recommended melt temperature	260 - 280 °C
Recommended mould temperature	90 - 100 °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.

Disclaimer