

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 developed 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

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	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	cm ³ /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/m ²	100 / 105
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	21 / 25
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	95 / 100
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	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

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufactures in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.