

TECHNICAL DATA SHEET

TECHNYL C 216S V30 BK

(Previously DOMAMID HCE 6G30 BK)

Polyamide 6, 30% glass fiber reinforced, improved surface finish, for injection moulding

TECHNYL C 216S V30 BK 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

Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,M1,S14-100

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

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.36
Water absorption	24 hr, 23°C	ISO 62	%	6
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	cm ³ /g	145

	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/m ²	90 / 110
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	15 / 28
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	80 / 95
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	15 / 30

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

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013
Comparative tracking index	Solution A	IEC 60112	V	500
CTI performance level category		Sol A		PLC 1

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	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

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.