

## TECHNICAL DATA SHEET

### TECHNYL C 216S V60 BK

(Previously DOMAMID HCE 6G60 BK)

Polyamide 6, 60% glass fiber reinforced, improved surface finish, for injection moulding, black

TECHNYL C 216S V60 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 60%, 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-GF60
ISO 16396 designation	PA6,GF60,M1,S14-220

	Condition	Standard	Unit	Value
<b>Physical properties</b>				
Density		ISO 1183	g/cm <sup>3</sup>	1.69
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1
Water absorption	24 hr, 23°C	ISO 62	%	3
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.1 - 0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.2 - 0.4
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	125

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	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	21000 / 14000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	240 / 145
Strain at break	5 mm/min	ISO 527-1/-2	%	2.5 / 3.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	19500 / 13500
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	380 / 255
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	75 / 85
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	70 / 75
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	15 / 21
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	10 / 10
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	75 / 75
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	15 / 20

## 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	212
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	210

## Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+016
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Comparative tracking index	Solution A	IEC 60112	V	500
CTI performance level category		Sol A		PLC 1

## Burning behaviour

Flammability, 1.5 mm	1.5 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).  
\*: 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 - 290 °C
Recommended melt temperature	260 - 290 °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.*