

TECHNICAL DATA SHEET

TECHNYL C 216S V65 NC

(Previously DOMAMID HCE 6G65 NC)

Polyamide 6, 65% glass fiber reinforced, improved surface finish, for injection moulding, natural color

General

Feature	Improved surface finish
Polymer type	PA6 (Polyamide 6)
Processing technology	Injection molding
Certification	RoHS

Product identification

ISO 1043 abbreviation	PA6-GF65
ISO 16396 designation	PA6,GF65,M1,S14-250

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	1.77
Humidity absorption	T=23°C, 50% RH	ISO 62	%	0.9
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 ³ /g	125

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	24000 / 16500
Stress at break	5 mm/min	ISO 527-1/-2	MPa	260 / 165
Strain at break	5 mm/min	ISO 527-1/-2	%	1.5 / 2.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	22500 / 17000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	395 / 290
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	85 / 90
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	85 / 80
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	17 / 22
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	12 / 12
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	80 / 90
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	17 / 22

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	215
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)
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.

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