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TECHNICAL DATA SHEET

TECHNYL C 219S V30 BK 21N

(Previously DOMAMID 6G30H1 BK99)

Polyamide 6, 30% glass fiber reinforced, heat-aging stabilized, for injection moulding

General

Feature	UL HB	Heat-aging stabilized
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	UL-Yellow Card

Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,M1H,S14-090

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.36
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2
Water absorption	24 hr, 23°C	ISO 62	%	7
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3 - 0.5
Molding shrinkage, normal		ISO 294-4, 2577	%	0.8 - 1
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm³/10 min	45
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	9500 / 6000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	170 / 105
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8200 / 5000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	250 / 150
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	85 / 100
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	70 / 90
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	13 / 24
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	9 / 19
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	75 / 85
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	13 / 25
Rockwell hardness		ISO 2039/2	ScaleR	122 / -
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				
UL Yellow Card availability (UL)	Click here to have access to the UL Yellow Card → E170540-225450			
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 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	240 - 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.

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