

TECHNICAL DATA SHEET

TECHNYL C 216 V30 GY F650 XB

(Previously DOMAMID 6G30 GY7F650XB)

Polyamide 6, 30% glass fiber reinforced, for injection moulding

General

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,M1,S14-090		

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	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	cm ³ /10 min	45
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	9500 / 6000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	180 / 110
Strain at break	5 mm/min	ISO 527-1/-2	%	3.5 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8500 / 5000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	270 / 160
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	90 / 105
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	75 / 90
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	15 / 25
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	9 / 22
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	15 / 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 	Click here to have access to the UL Yellow Card → QMFZ2.E44716			
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)
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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