

TECHNICAL DATA SHEET

TECHNYL C 219S V35 BK 21N

DOMAMID 6G35H1 BK

Polyamide 6, 35% glass fiber reinforced, heat-aging stabilized, for injection moulding

General

Certifications	RoHS	UL listed product
Polymer type	PA6	
Feature	organic heat stabilized	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF35
ISO 16396 designation	PA6,GF35,MH,S14-110

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

Physical properties

Density		ISO 1183	g/cm ³	1.41
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.8 - 2.2
Water absorption	24 hr, 23°C	ISO 62	%	1.4 - 1.5
Water absorption, saturation			%	6.1
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	145.0

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10800 / 7100
Stress at break	5 mm/min	ISO 527-1/-2	MPa	185 / 115
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 5.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9800 / 6500
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	275 / 170
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	95 / 105
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	15 / 25
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	85 / 100
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	15 / 25
Rockwell hardness		ISO 2039/2	ScaleR	122 / -

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
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
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	215

	Condition	Standard	Unit	Value
Burning behaviour				
UL Yellow Card availability 1	<u>Click here to have access to the UL Yellow Card availability 1 -> E170540-225451</u>			
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

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

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E13
Comparative tracking index	Solution A	IEC 60112	V	500.0
CTI performance level category		Sol A		PLC 1

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 °C

Injection notes

The material is supplied in airtight bags, ready for use.,In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C.,Recommended time 2-4h.

Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered.,The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.