

TECHNICAL DATA SHEET

TECHNYL C 218 V35 BK

TECHNY C 218 V35 BK is a polyamide 6, reinforced with 35% of glass fiber, heat stabilized, for injection moulding. The product offers an excellent combination between thermal and mechanical properties.

General

Feature	Heat-aging stabilized	
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	
Applications	Automotive Applications	Electrical/Electronic Applications
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6-GF35
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	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm ³	1.41
Humidity absorption	T=23°C, 50% RH	ISO 62	%	0.85
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.25
Molding shrinkage, normal		ISO 294-4, 2577	%	0.7

Mechanical properties

				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	11000 / 6500
Stress at break		ISO 527-1/-2	MPa	175 / 110
Strain at break		ISO 527-1/-2	%	3.2 / 7
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9600 / 6000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	280 / 185
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	83 / 94
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	17 / 19
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	15 / 28

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	222
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	210

Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Comparative tracking index	Solution A	IEC 60112	V	400
CTI performance level category		Sol A		PLC 1

Burning behaviour				
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	650
Glow-wire flammability index, GWFI, 3.0 mm	3.0 mm	IEC 60695-2-12	°C	650

*: conditioned according to ISO 1110

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.

Disclaimer

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