TECHNYL®

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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

Physical properties	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	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/m²	83 / 94
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	17 / 19
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	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