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TECHNICAL DATA SHEET

TECHNYL D 218 V30 BK

(Previously TECHNYL EXTEN D 218 V30 BLACK)

TECHNYL D 218 V30 BK is a polyamide 6.10, reinforced with 30% of glass fibre, heat stabilized, for injection moulding. This grade offers excellent chemical resistance, low water absorption, very good mechanical properties and moldability. It is a partially bio-sourced material.

General

Feature	Heat-aging stabilized Contains renewable content	Chemical resistant Low moisture absorption
Polymer type	PA610 (Polyamide 610)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Connectors PC / laptop / tablet	home & office furniture
Colors available	Black	Natural
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA610-GF30

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.3
Water absorption	24 hr, 23°C	ISO 62	%	0.38
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.8

Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	8900 / 5500
Stress at break		ISO 527-1/-2	MPa	150 / 80
Strain at break		ISO 527-1/-2	%	4.1 / 8
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	90 / 85
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	85 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	13 / -

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Thermal properties

	Condition	Standard	Unit	Value
Melting temperature, 10°C/min		ISO 11357-1	°C	215
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	216
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	198

**: conditioned according to ISO 1110*

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	240 - 250 °C
Middle temperature	245 - 255 °C
Front temperature	250 - 260 °C
Recommended mould temperature	60 - 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.

Disclaimer