

TECHNICAL DATA SHEET

TECHNYL C 118 V30 BK

TECHNYL C 118 V30 BK is a polyamide 6, reinforced with 30% of glass fiber, heat stabilized, for injection moulding.

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	heat-aging stabilized	high flow
Applications	automotive applications	under the hood
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,MH,S14-100

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm ³	1.36	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.2 - 2.4
Water absorption, saturation			%	6.2
Molding shrinkage, parallel	ISO 294-4, 2577	%		0.1 - 0.3
Molding shrinkage, normal	ISO 294-4, 2577	%		0.7 - 0.9

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 6000
Stress at break		ISO 527-1/-2	MPa	180 / 110
Strain at break		ISO 527-1/-2	%	3 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9000 / 5400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	280 / 170
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	70 / 90
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	50 / 55
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	11 / 18
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	9.5 / 8.5
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	11 / 17

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	215

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 0.40 mm	0.40 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100 mm/min

Condition	Standard	Unit	Value
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Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E14
Comparative tracking index	Solution A	IEC 60112	V	400.0
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)
Suggested max moisture	0.2 %
Rear temperature	230 - 235 °C
Middle temperature	235 - 240 °C
Front temperature	240 - 250 °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.