

TECHNICAL DATA SHEET

## TECHNYL CR 218 V30 BK 1N

TECHNYL CR 218 V30 BK 1N is a polyamide 6, reinforced with 30% of glass fiber, heat stabilized, for injection moulding. This grade offers a good combination between thermal and mechanical properties.

### General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	heat-aging stabilized	
Applications	general purpose	
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

### Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6-GF30,MH,S14-090

Condition	Standard	Unit	Value
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### Physical properties

Density		ISO 1183	g/cm <sup>3</sup>	1.36
Water absorption, saturation			%	6.1

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9400 / 6000
Stress at break		ISO 527-1/-2	MPa	135 / 95
Strain at break		ISO 527-1/-2	%	2.7 / 5.2
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8500 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	200 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	45 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	5.2 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	40 / 60
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	7 / 12

\*: conditioned according to ISO 1110

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	204

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	650
Glow-wire ignition temperature, GWIT, 1.5 mm	1.5 mm	IEC 60695-2-13	°C	650
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100mm/min

<b>Processing conditions</b>	
Drying temperature/time	80 °C
Suggested max moisture	0.2 %

## Processing conditions

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.