

TECHNICAL DATA SHEET

## TECHNYL C 218 V30 BK D

### DOMAMID 6G30H2 BK

Polyamide 6, 30% glass fiber reinforced, heat-aging stabilized, for injection moulding, black

#### General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	heat-aging stabilized	
Applications	automotive applications	
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 <sup>3</sup>	1.36	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.2 - 2.4
Water absorption	24 hr, 23°C	ISO 62	%	1.4 - 1.5
Water absorption, saturation			%	6.1
Molding shrinkage, parallel	ISO 294-4, 2577	%		0.2 - 0.4
Molding shrinkage, normal	ISO 294-4, 2577	%		0.7 - 0.9
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	145.0

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 6000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	180 / 115
Strain at break	5 mm/min	ISO 527-1/-2	%	3.2 / 6.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8500 / 5000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	250 / 160
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	80 / 90
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	65 / 70
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	10 / 18
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	8 / 9
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m <sup>2</sup>	75 / 80
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	9 / 19
Izod notched impact strength, -30°C	-30°C	ISO 180/1A	kJ/m <sup>2</sup>	8 / 9

\*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	222
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	218
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	208
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	214

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

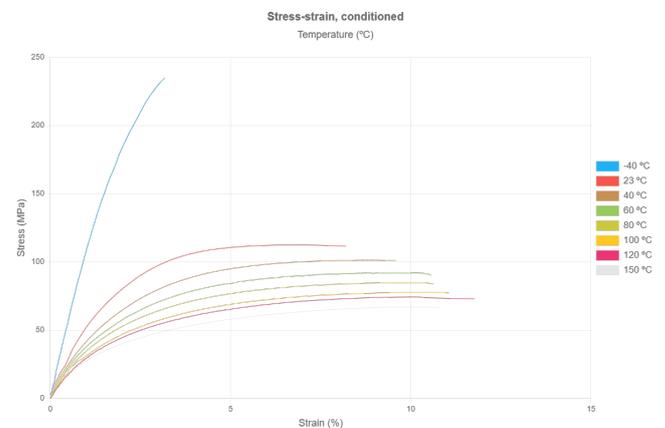
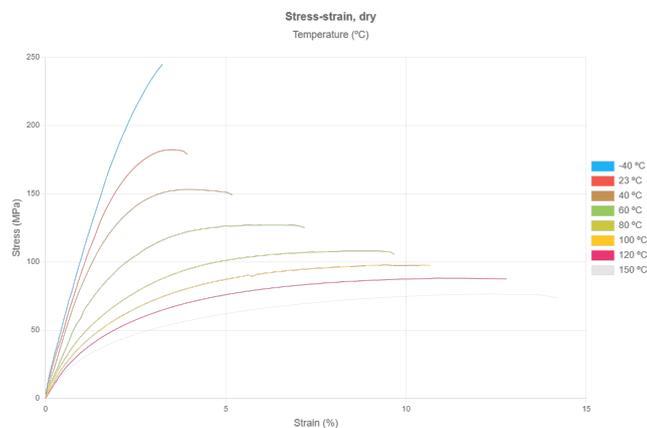
Condition	Standard	Unit	Value
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## Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E14

## Processing conditions

Drying temperature/time	75-85°C to reach recommended moisture level of 0.08%
Suggested max moisture	0.12 %
Rear temperature	240 - 250 °C
Middle temperature	250 - 270 °C
Front temperature	260 - 290 °C
Recommended melt temperature	250 - 290 °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.