

TECHNICAL DATA SHEET

## TECHNYL C 218 V40 BK

### DOMAMID 6LVG40H2 BK

Polyamide 6, 40% glass fiber reinforced, heat-aging stabilized, improved flowability, for injection moulding, black

#### General

Certifications	RoHS
Polymer type	PA6
Feature	heat-aging stabilized good stiffness
	improved flowability
Processing technology	injection moulding

#### Product identification

ISO 1043 abbreviation	PA6-GF40
ISO 16396 designation	PA6,GF40,MH,S12-120

Condition	Standard	Unit	Value
-----------	----------	------	-------

#### Physical properties

Condition	Standard	Unit	Value
Density	ISO 1183	g/cm <sup>3</sup>	1.45
Humidity absorption	T=23°C, 50% RH	ISO 62	%
			1.8 - 2.0
Water absorption	24 hr, 23°C	ISO 62	%
			1.3 - 1.4
Water absorption, saturation			%
			5.7
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.15 - 0.35
Molding shrinkage, normal	ISO 294-4, 2577	%	0.65 - 0.85
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g
			125.0

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	12500 / 8000
Stress at break	5 mm/min	ISO 527-1/-2	MPa	200 / 140
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	11500 / 7000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	300 / 210
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	90 / 105
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	85 / 100
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	15 / 24
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	11 / 13

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

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
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

	Condition	Standard	Unit	Value
<b>Burning behaviour</b>				
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

	Condition	Standard	Unit	Value
<b>Electrical properties</b>				
Volume resistivity		IEC 62631-3-1	ohm.m	1.0E16
Surface resistivity		IEC 62631-3-1	ohm	1.0E14

## Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	240 - 280 °C
Recommended mould temperature	80 - 100 °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.