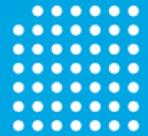


EXPERIMENTAL DATASHEET

**TECHNYL STAR S 216L2 V20 BK**



TECHNYL STAR S 216L2 V20 BK is a high flow polyamide 6, UV stabilized, reinforced with 20% of glass fibre, for injection moulding. This grade offers an excellent UV resistance and excellent surface aspect.

**General**

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	UV stabilized very high flow	high flow
Applications	automotive applications	handles
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

**Product identification**

ISO 1043 abbreviation	PA6-GF20
ISO 16396 designation	PA6,GF20,M,S09-070

Condition	Standard	Unit	Value
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**Physical properties**

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm <sup>3</sup>	1.27	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.6 - 2.8
Water absorption	24 hr, 23°C	ISO 62	%	1.65 - 1.7
Water absorption, saturation			%	7.4
Molding shrinkage, parallel	ISO 294-4, 2577	%		0.2
Molding shrinkage, normal	ISO 294-4, 2577	%		0.5

EXPERIMENTAL DATASHEET

TECHNYL STAR S 216L2 V20 BK

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1mm/min	ISO 527-1/-2	MPa	6800 / 3700
Stress at break	5mm/min	ISO 527-1/-2	MPa	130 / 84
Strain at break	5mm/min	ISO 527-1/-2	%	2.2 / 7.6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	5550 / 2900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	195 / 130
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	38 / 67
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	33 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	7.5 / -
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	7 / -

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

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	223
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	200

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

<b>Processing conditions</b>	
Drying temperature/time	80
Suggested max moisture	0.2 %
Rear temperature	230 - 235 °C
Middle temperature	235 - 240 °C
Front temperature	240 - 245 °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.