

TECHNICAL DATA SHEET

## TECHNYL STAR S 216 V30 BK 21N

### DOMAMID VHF 6G30 BK999

Polyamide 6, 30% glass fiber reinforced, high flowability, improved surface finish, for injection moulding

#### General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	high flowability, improved surface finish	
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

#### Product identification

ISO 1043 abbreviation	PA6-GF30
ISO 16396 designation	PA6,GF30,M,S10-090

Condition	Standard	Unit	Value
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#### Physical properties

		Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.37
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	0.8 - 1.0
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm <sup>3</sup> /10 min	75.0
Viscosity number	96% H2SO4	ISO 307	cm <sup>3</sup> /g	110.0

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9400 / 5800
Stress at break	5 mm/min	ISO 527-1/-2	MPa	170 / 100
Strain at break	5 mm/min	ISO 527-1/-2	%	2.5 / 5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8500 / 4900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	250 / 150

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

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	215
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	205
Vicat softening temperature	50Å°C/h - 50N	ISO 306	°C	210

	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
<b>Electrical properties</b>				
Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E13

<b>Processing conditions</b>	
Drying temperature/time	75-85Å°C / 2-4h (with dew point of dried air < -30 Å°C)
Recommended melt temperature	270 °C
Recommended mould temperature	100 °C

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## 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  $-20^{\circ}\text{C}$ . 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  $120^{\circ}\text{C}$  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.