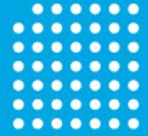


TECHNICAL DATA SHEET

TECHNYL STAR AF 219 V30 BK LT



TECHNYL STAR AF 219 V30 BK LT is a polyamide 6.6, high flow, reinforced with 30% of glass fiber, heat stabilized, for injection molding. One specificity of this grade is to combine a black color and a good transmittance to infra-red wavelength, which makes it suitable for laser welding as a transparent material. This grade offers an excellent combination between thermal and mechanical properties, and it also restricts electrolytic corrosion.

General

Polymer type	PA66	
Certifications	RoHS	EC 1907/2006 (REACH)
Feature	high flowability, improved surface finish organic heat stabilized	low halogen content very high flow
Applications	automotive applications	general purpose
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66-GF30
ISO 16396 designation	PA66,GF30,MH,S14-100

Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.36
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.9
Water absorption	24 hr, 23°C	ISO 62	%	1.2
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3 - 0.35
Molding shrinkage, normal		ISO 294-4, 2577	%	1.0

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10100 / 7000
Stress at break		ISO 527-1/-2	MPa	200 / 135
Strain at break		ISO 527-1/-2	%	2.9 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9400 / 5600
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	305 / 225
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	63 / 69

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	263
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	248

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

Processing conditions	
Drying temperature/time	80°C
Suggested max moisture	0.2 %
Rear temperature	270 - 280 °C
Middle temperature	275 - 285 °C
Front temperature	280 - 290 °C
Recommended mould temperature	70 - 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.