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TECHNYL STAR®
High-flow PA6 & PA 6.6

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL STAR AF 219 V30 NC

TECHNYL STAR AF 219 V30 NC is a polyamide 6.6, high flow, reinforced with 30% of glass fiber, heat stabilized, for injection moulding. This grade has enhanced moulding behaviors and better surface aspect. It offers an excellent combination between thermal and mechanical properties. This grade restricts electrolytic corrosion.

General

Feature	Very high flow Excellent surface finish Organic heat stabilized	Electrical corrosion resistant Low halogen content
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications Electrical/Electronic Applications General Purpose	Connectors Pulleys
Colors available	Black	Natural
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-GF30

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.36
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.28
Molding shrinkage, normal		ISO 294-4, 2577	%	0.95

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 6500
Stress at break		ISO 527-1/-2	MPa	185 / 110
Strain at break		ISO 527-1/-2	%	2.6 / 7.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9000 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	270 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	60 / 75
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	8 / 10
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	50 / -
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	258
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	258
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	250
Electrical properties				
Comparative tracking index	Solution A	IEC 60112	V	600
CTI performance level category		Sol A		PLC 0

**: conditioned according to ISO 1110*

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	265 - 275 °C
Middle temperature	270 - 280 °C
Front temperature	280 - 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.

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Disclaimer

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