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TECHNYL STAR®
High-flow PA6 & PA 6.6

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TECHNICAL DATA SHEET

TECHNYL STAR AF 219 V30 BK LT

Polyamide 66, 30% glass fiber reinforced, heat-aging stabilized, high flowability, improved surface finish, for injection molding, black

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

Feature	Heat-aging stabilized Low halogen content	High flowability, improved surface finish
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications	General Purpose
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-GF30
ISO 16396 designation	PA66,GF30,M1H,S14-100

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	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

	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/m²	63 / 69
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

Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for black products.
**: conditioned according to ISO 1110*

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

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

Disclaimer