

TECHNICAL DATA SHEET

TECHNYL PURE AF 219E1 V30 BK

(Previously TECHNYL STAR AF 219E1 V30 BLACK)

TECHNYL PURE AF 219E1 V30 BK is a polyamide 6.6, high flow, reinforced with 30% of glass fiber, organic heat stabilized, for injection moulding. This grade offers a formula clean of additive that contains halogen and other substances (ex: phosphorus) that can migrate and generate corrosion issues. Electrofriendly heat stabilized grade. Suitable for laser printing. < 50ppm halogen content are guaranteed, based on internal elution analysis:

General

Feature	Lasermarkable Electro-friendly	Very high flow Organic heat stabilized
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications fuel cell / H2 system	Connectors
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-GF30
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Condition Standard Unit Value

Physical properties

Density		ISO 1183	g/cm ³	1.36
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	1

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	Condition	Standard	Unit	Value dam / cond.*
Mechanical properties				
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / -
Stress at break		ISO 527-1/-2	MPa	185 / -
Strain at break		ISO 527-1/-2	%	2.6 / -
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 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	8 / -
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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