+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
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TECHNYL® PURE
Electrically neutral

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL PURE A 219E1 V30 BK

(Previously TECHNYL A 219E1 V30 BLACK)

TECHNYL PURE A 219E1 V30 BK is a polyamide 66, reinforced with 30% of glass fibre, organic heat stabilized, for injection moulding. This grade offers a formula clean of additive that contain halogen and other sustances (ex: phosphorus) that can migrate and generate corrosion issues. Electrofriendly heat satbilized grade. Suitable for laser printing. < 50ppm halogen content garanteed, 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

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.36
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.1 - 2.3
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Water absorption, saturation			%	5.3
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	1.05 - 1.15

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 7000
Stress at break		ISO 527-1/-2	MPa	190 / 120
Strain at break		ISO 527-1/-2	%	3 / 5.9
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9000 / 6300
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	290 / 180
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	60 / 85
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	12 / 16
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	75 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	12 / -
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	260
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	255
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+015
Comparative tracking index	Solution A	IEC 60112	V	600
CTI performance level category		Sol A		PLC 0
Dielectric strength	1 mm	IEC 60243-1	kV/mm	35
Burning behaviour				
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	650
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100

**: conditioned according to ISO 1110*

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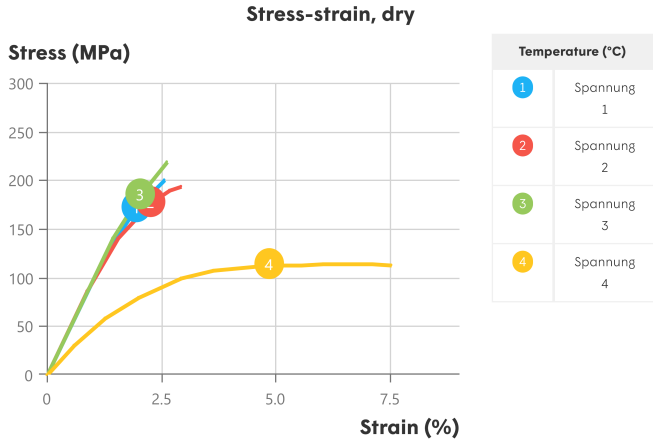
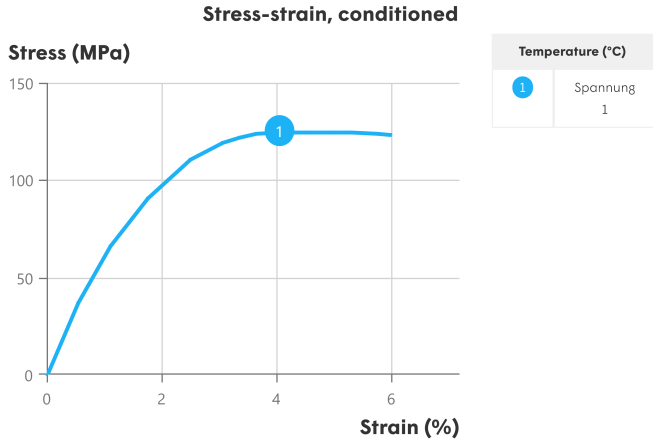
Processing conditions

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.

Disclaimer