TECHNYL® PURE
Electrically neutral

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL PURE D 219E1CR V33 BK

(Previously TECHNYL EXTEN D 219E1CR V33 BLACK)

TECHNYL PURE D 219E1CR V33 BK is a polyamide PA610/66, reinforced with 33% of glass fibre, organic heat stabilized for injection moulding. This grade offers a clean formula free of additives containing halogens and other substances that can migrate and generate corrosion issues. Electrofriendly heat stabilized grade. Suitable for laser printing. < 50ppm halogen content, based on internal elution analysis. Thanks to the innovative formula it offers lower moisture absorption, improved electrical insulation, higher dimensional stability and good heat stability compared to PA66 compounds. Exceptional hydrolysis resistance.

General

Feature	Lasermarkable Contains renewable content Electro-friendly Excellent surface finish	Chemical resistant Electrical corrosion resistant Excellent hydrolysis resistant Organic heat stabilized
Polymer type	(PA610 + PA66) blend	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications	fuel cell / H2 system
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA610+PA66-GF33

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.35
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
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	11300 / 8400
Stress at break		ISO 527-1/-2	MPa	200 / 140
Strain at break		ISO 527-1/-2	%	2.9 / 5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9870 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	234 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	85 / 85
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	80 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	14 / 16
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	10 / -
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	260
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	225
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	216
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Comparative tracking index	Solution A	IEC 60112	V	675
CTI performance level category		Sol A		PLC 0
Dielectric strength	1 mm	IEC 60243-1	kV/mm	22
Burning behaviour				
Flammability, 0.75 mm	0.75 mm	UL 94		HB

**: conditioned according to ISO 1110*

Processing conditions	
Drying temperature/time	80 °C
Suggested max moisture	0.15 %
Rear temperature	265 - 275 °C
Middle temperature	270 - 280 °C
Front temperature	275 - 280 °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

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