+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

TECHNYL® PURE
Electrically neutral

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL PURE J 219HT V35 BK

TECHNYL PURE J 219HT V35 BK is a high temperature polyamide, reinforced with 35% of glass fibers, organic heat stabilized for injection moulding. This grade offers a clean formula free of additives containing halogens and other substances that have the potential to release metallic ions, as metallic ions are known to negatively affect the electrochemical reaction in a PEM Fuel Cell Stack. For this grade a metallic ion content < 8 ppm is guaranteed, based on internal ion migration analysis. Thanks to the innovative formulation it offers lower moisture absorption, improved electrical insulation, higher dimensional stability and good heat stability compared to standard PA66 compounds.

General

Feature	High dimensional stability Electrical corrosion resistant Organic heat stabilized	Very high flow Electro-friendly
Polymer type	PA66/6T copolymer	
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	PA66/6T-GF35

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.42
Water absorption	24 hr, 23°C	ISO 62	%	0.3
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10500 / -
Stress at break		ISO 527-1/-2	MPa	190 / -
Strain at break		ISO 527-1/-2	%	2.9 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8300 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	300 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	70 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	12 / -

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	Condition	Standard	Unit	Value
Thermal properties				
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	245
Electrical properties				
Comparative tracking index	Solution A	IEC 60112	V	650
CTI performance level category		Sol A		PLC 0
Dielectric strength	1 mm	IEC 60243-1	kV/mm	40
Burning behaviour				
Flammability, 1.5 mm	1.5 mm	UL 94		HB

**: conditioned according to ISO 1110*

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.15 %
Rear temperature	290 - 300 °C
Middle temperature	295 - 305 °C
Front temperature	300 - 310 °C
Recommended mould temperature	90 - 110 °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