

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/cm <sup>3</sup>	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/m <sup>2</sup>	70 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	12 / -

TECHNICAL DATA SHEET

TECHNYL PURE J 219HT V35 BK

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	245
<b>Electrical properties</b>				
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
<b>Burning behaviour</b>				
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**

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufacturers in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.