

TECHNICAL DATA SHEET

TECHNYL A 218 MT25 V15 BK

TECHNYL A 218 MT25 V15 BK is a polyamide 66, reinforced with 15% of glass fibre and 25% of mineral filler, heat stabilized, for injection moulding. This grade offers an excellent combination between thermal and mechanical properties as well as a low warpage of molded parts.

General

Feature	Heat-aging stabilized Low warpage	High dimensional stability
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-MD25+GF15
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Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.47
Water absorption	24 hr, 23°C	ISO 62	%	1.8

Mechanical properties

dam / cond.*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	8200 / 5700
Stress at break		ISO 527-1/-2	MPa	120 / 70
Strain at break		ISO 527-1/-2	%	3 / 7
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	6800 / 4500
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	215 / 125
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	40 / 60
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	3 / 3.5
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	3.5 / 4.5

Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	263
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	Condition	Standard	Unit	Value
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	8E+013
Surface resistivity		IEC 62631-3-1	ohm	5E+014
Comparative tracking index	Solution A	IEC 60112	V	400
CTI performance level category		Sol A		PLC 1
Dielectric strength	1 mm	IEC 60243-1	kV/mm	35

Burning behaviour

Flammability, 1.5 mm	1.5 mm	UL 94		HB
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*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	270 - 280 °C
Middle temperature	280 - 290 °C
Front temperature	280 - 300 °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.