

TECHNICAL DATA SHEET

TECHNYL A 218 MZ15 V25 BK 31N

TECHNYL A 218 MZ15 V25 BK 31N is a polyamide 66, reinforced with 25% of glass fibre and 15% of mineral filler, heat stabilized, for injection moulding. This grade is available in black color. This grade offers an excellent combination between thermal and mechanical properties as well as a low warpage of molded parts.

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA66	
Feature	heat-aging stabilized	low warpage
Applications	automotive applications	
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66-GF25+MD15
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Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.47
Water absorption	24 hr, 23°C	ISO 62	%	1.0
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	1.1

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 7500
Stress at break	5mm/min	ISO 527-1/-2	MPa	140 / 115
Strain at break	5mm/min	ISO 527-1/-2	%	2 / 3
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9000 / -
Flexural modulus, ASTM D790	2 mm/min	ASTM D790	MPa	9600 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	210 / -
Flexural strength, ASTM D790	2 mm/min	ASTM D790	MPa	220 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	45 / 55
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	5 / 7
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	4 / 6

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
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	245
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	240

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100

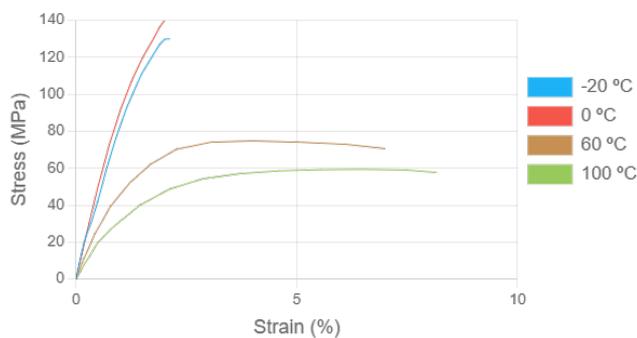
Processing conditions	
Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	270 - 280 °C

Processing conditions

Middle temperature	280 - 290 °C
Front temperature	280 - 300 °C
Recommended mould temperature	70 - 100 °C

Stress-strain, dry

Temperature (°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.