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TECHNICAL DATA SHEET

TECHNYL A 218G1 V25 BK 34N

TECHNYL A 218G1 V25 BK 34N is a polyamide 66, reinforced with 25% of glass fiber, heat stabilized, for injection moulding. This grade has been specially designed to improve its resistance to automotive cooling liquids, increasing lifetime of parts in permanent contact with such liquids.

General

Feature	Heat-aging stabilized	Glycol resistant
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Piping	
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-GF25

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.32
Water absorption	24 hr, 23°C	ISO 62	%	0.9
Water absorption, saturation			%	6.2
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	1.1
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	8400 / 6300
Stress at break		ISO 527-1/-2	MPa	170 / -
Strain at break		ISO 527-1/-2	%	3 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	7900 / 5000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	255 / 155
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	68 / 87
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	10 / 13
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	8 / 15

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	Condition	Standard	Unit	Value

Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	263
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	245

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	6E+015
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	34

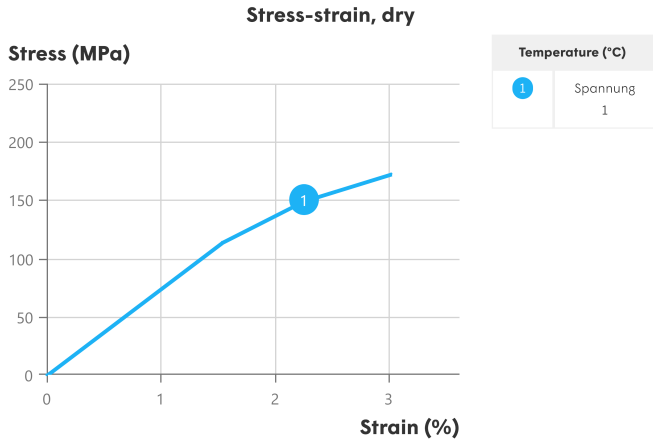
Burning behaviour

Flammability, 1.5 mm	1.5 mm	UL 94		HB
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	650
Oxygen index			%	23

**: conditioned according to ISO 1110*

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.15 %
Rear temperature	270 - 280 °C
Middle temperature	275 - 285 °C
Front temperature	280 - 290 °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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