

TECHNICAL DATA SHEET

## TECHNYL A 218HP V35 BK 21N

TECHNYL A 218HP V35 BK 21N is a polyamide 6.6, reinforced with 35% of glass fiber, heat stabilized, for injection moulding. This grade is designed to offer a long term heat resistance and is suitable to work in environments characterized by a very high temperature. (200°C)

### General

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

### Product identification

ISO 1043 abbreviation	PA66-GF35
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### Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.39
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	1.1

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>				<b>dam / cond.*</b>
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	11000 / 7700
Stress at break		ISO 527-1/-2	MPa	190 / 130
Strain at break		ISO 527-1/-2	%	2.6 / 5.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9700 / -
Flexural modulus, ASTM D790	2 mm/min	ASTM D790	MPa	10200 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	285 / -
Flexural strength, ASTM D790	2 mm/min	ASTM D790	MPa	257 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	80 / 78
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	85 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	15 / 19
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	10 / -

### Thermal properties

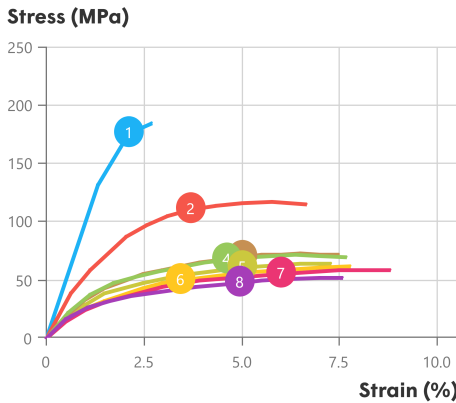
Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	247

\*: conditioned according to ISO 1110

### Processing conditions

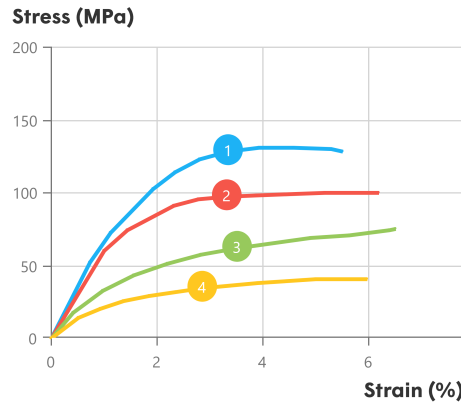
Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	270 - 280 °C
Middle temperature	275 - 285 °C
Front temperature	280 - 290 °C
Recommended mould temperature	70 - 100 °C

Stress-strain, dry



Temperature (°C)	Spannung
1	Spannung 1
2	Spannung 2
3	Spannung 3
4	Spannung 4
5	Spannung 5
6	Spannung 6

Stress-strain, conditioned



Temperature (°C)	Spannung
1	Spannung 4
2	Spannung 8
3	Spannung 10
4	Spannung 13

## 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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