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# **TECHNYL**®



**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

Physical properties			
Density	ISO 1183	g/cm³	1.39
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.3
Molding shrinkage, normal	ISO 294-4, 2577	%	1.1

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80 / 78

85/-

15 / 19

10/-

Mechanical properties				dam / cond.*
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 / -

ISO 179/1eU

ISO 179/1eU

ISO 179/1eA

ISO 179/1eA

kJ/m²

 $kJ/m^2$ 

kJ/m²

kJ/m²

+23°C

-30°C

+23°C

-30°C

#### **Thermal properties**

Charpy impact strength, +23°C

Charpy impact strength, -30°C

Charpy notched impact strength, +23°C

Charpy notched impact strength, -30°C

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

<sup>\*:</sup> conditioned according to ISO 1110

#### **Processing conditions**

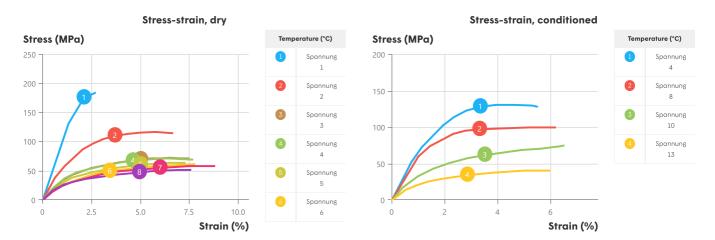
Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	270 - 280 °C
Middle temperature	275 - 285 °C
Front temperature	280 - 290 °C
Recommended mould temperature	70 - 100 °C

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#### **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 manufactures 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