

TECHNICAL DATA SHEET

TECHNYL C 218 V35 BK 21N

TECHNYL C 218 V35 BK 21N is a polyamide 6, reinforced with 35% of glass fiber, heat stabilized, for injection moulding. The product offers an excellent combination between thermal and mechanical properties.

General

Feature	Heat-aging stabilized	
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	
Applications	Automotive Applications	Electrical/Electronic Applications
Colors available	Black	Natural
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6-GF35
-----------------------	----------

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.41
Water absorption	24 hr, 23°C	ISO 62	%	0.85
Water absorption, saturation			%	2.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.25
Molding shrinkage, normal		ISO 294-4, 2577	%	0.7

TECHNICAL DATA SHEET

TECHNYL C 218 V35 BK 21N

	Condition	Standard	Unit	Value
<b>Mechanical properties</b>			<b>dam / cond.*</b>	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	11000 / 6500
Stress at break		ISO 527-1/-2	MPa	175 / 110
Strain at break		ISO 527-1/-2	%	3.2 / 7
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9600 / 6000
Flexural modulus, ASTM D790	2 mm/min	ASTM D790	MPa	9600 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	280 / 185
Flexural strength, ASTM D790	2 mm/min	ASTM D790	MPa	260 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	83 / 94
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	17 / 19
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	15 / 28

**Thermal properties**

Melting temperature, 10°C/min		ISO 11357-1	°C	222
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	210

**Electrical properties**

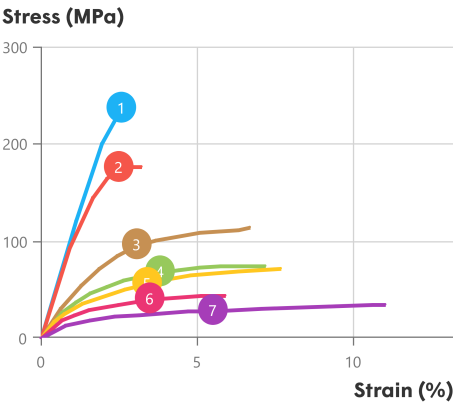
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+014
Comparative tracking index	Solution A	IEC 60112	V	400
CTI performance level category		Sol A		PLC 1

**Burning behaviour**

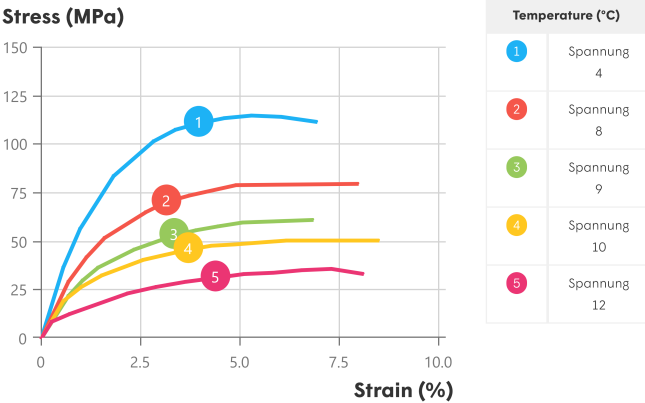
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	650
Glow-wire flammability index, GWFI, 3.0 mm	3.0 mm	IEC 60695-2-12	°C	650

\*: conditioned according to ISO 1110

Stress-strain, dry



Stress-strain, conditioned



## 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 sector.