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TECHNYL STAR®
High-flow PA6 & PA 6.6

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL STAR AF 218 V35 BK 21N

TECHNYL STAR AF 218 V35 BK 21N is a polyamide 6.6, high flow, reinforced with 35% of glass fiber, heat stabilized, for injection moulding. Due to its outstanding flow caracteristics, this grade shows exceptional processing behaviour and excellent surface aspect of the finished part. This grade is ideal for use in the automotive industry for engine components. This grade is ideal for Mucell® injection moulding technology.

General

Feature	Heat-aging stabilized Excellent surface finish	Very high flow
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications General Purpose	Pulleys
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-GF35
ISO 16396 designation	PA66,GF350,M1,S14-110

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.41
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.8
Water absorption	24 hr, 23°C	ISO 62	%	0.75 - 0.8
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.25 - 0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.9 - 1

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	11400 / 7000
Stress at break		ISO 527-1/-2	MPa	200 / 120
Strain at break		ISO 527-1/-2	%	3 / 7.3
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9000 / 5400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	270 / 170
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	80 / 90
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	12 / 18
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	260
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	257
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	4E+012
Surface resistivity		IEC 62631-3-1	ohm	6E+013
Burning behaviour				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100

**: conditioned according to ISO 1110*

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	265 - 275 °C
Middle temperature	270 - 280 °C
Front temperature	280 - 290 °C
Recommended mould temperature	60 - 90 °C

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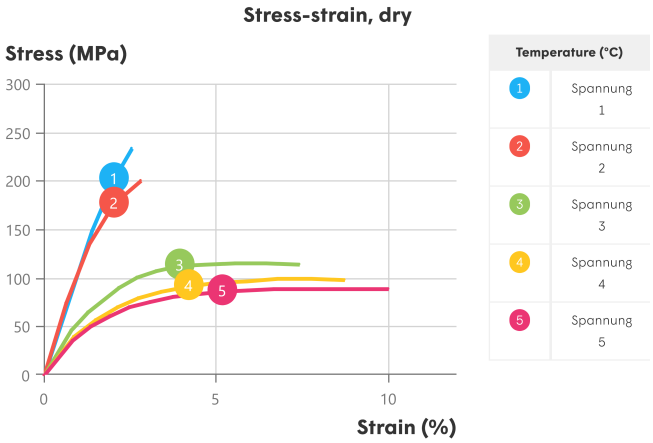

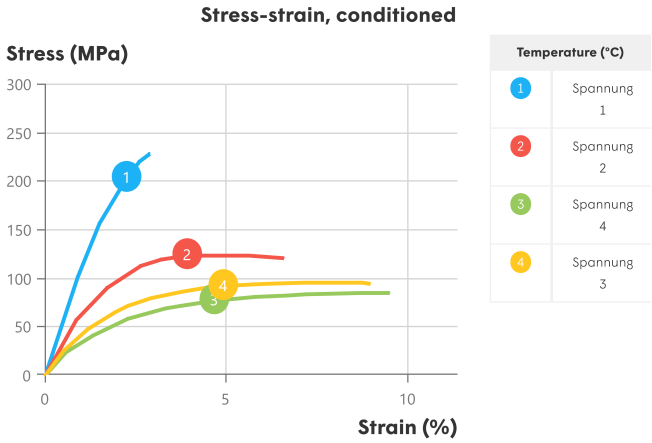

Injection notes

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 sector.