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TECHNYL STAR®
High-flow PA6 & PA 6.6

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL STAR AFX 216 V50 NC

TECHNYL STAR AFX 216 V50 NC is a high flow polyamide 66 resin, reinforced with 50% of glass fibre, for injection moulding. Due to its outstanding flow caracteristics, this grade shows exceptional processing behaviour and excellent surface aspect of the finished part.

General

Feature	High dimensional stability Excellent surface finish	Very high flow High stiffness
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Applications	Gears White Goods & Small Appliances	Living Hinges
Colors available	Natural	Grey
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-GF50

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.58
Water absorption	24 hr, 23°C	ISO 62	%	0.7
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.65
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	16100 / 12200
Stress at break		ISO 527-1/-2	MPa	258 / 189
Strain at break		ISO 527-1/-2	%	2.9 / 3.1
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	110 / 85
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	16 / 19
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	256

**: conditioned according to ISO 1110*

	Condition	Standard	Unit	Value

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

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