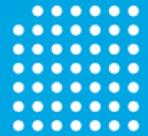


TECHNICAL DATA SHEET

TECHNYL STAR SX 218 V60 BK Z



TECHNYL STAR SX 218 V60 BK Z is based on a patented high flow polyamide 6 resin (Technylstar), heat stabilized, reinforced with 60% of glass fibre, for injection moulding. Due to its outstanding flow characteristics, this grade allows more freedom in mould and part design versus a standard polyamide solutions.

General

Certifications	RoHS EC 1907/2006 (REACH)	UL listed product
Polymer type	PA6	
Feature	heat-aging stabilized high dimensional stability very high flow	excellent surface finish high stiffness
Applications	automotive applications outdoor applications sport	handles pulleys
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF60
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Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.65
Water absorption	24 hr, 23°C	ISO 62	%	0.5 - 0.6
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.4

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	21000 / 13500
Stress at break		ISO 527-1/-2	MPa	240 / 165
Strain at break		ISO 527-1/-2	%	2.3 / 3.4
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	19500 / 14000
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	380 / 280
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	85 / 95
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	15 / 20
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	90 / 100
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	15 / 22

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
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	215

	Condition	Standard	Unit	Value
Burning behaviour				
UL Yellow Card availability 1	Click here to have access to the UL Yellow Card availability 1 -> QMFZ2.E44716			
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Processing conditions	
Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	230 - 235 °C

Processing conditions

Middle temperature	235 - 245 °C
Front temperature	245 - 250 °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.