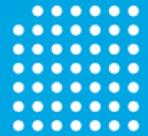


TECHNICAL DATA SHEET

TECHNYL STAR S 218 V60 BK 21N
DOMAMID 6LVG60H2 BK



TECHNYL STAR S 218 V60 Black 21N is a polyamide 6, reinforced with 60% of glass fiber, heat stabilized, improved flowability, for injection moulding. Due to its flow characteristics, this grade allows more freedom in mould and part design versus a standard polyamide solutions.

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	heat-aging stabilized excellent surface finish very high flow	improved flowability high stiffness
Applications	automotive applications	
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF60
ISO 16396 designation	PA6,GF60,MH,S12-220

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm ³	1.71	
Humidity absorption	T=23°C, 50% RH	ISO 62	%	0.9 - 1.3
Water absorption, saturation			%	3.9
Molding shrinkage, parallel	ISO 294-4, 2577	%		0.1 - 0.3
Molding shrinkage, normal	ISO 294-4, 2577	%		0.4 - 0.6

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	21500 / 15200
Stress at break	5 mm/min	ISO 527-1/-2	MPa	250 / 185
Strain at break	5 mm/min	ISO 527-1/-2	%	2.2 / 3.5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	18000 / 12200
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	385 / 260
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	100 / 100
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	100 / 103
Charpy impact strength, -40°C	-40°C	ISO 179/1eU	kJ/m ²	100 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	17 / 22
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	17 / 19
Charpy notched impact strength, -40°C	-40°C	ISO 179/1eA	kJ/m ²	15 / -

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	215
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	210

	Condition	Standard	Unit	Value
Burning behaviour				
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
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Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E13

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)			
Recommended melt temperature	280 - 300 °C			
Recommended mould temperature	80 - 100 °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.