

TECHNYL STAR® AF 218 V30 BK 21N

DOMO Engineering Plastics - Polyamide 66

General Information

Product Description

TECHNYL STAR AF 218 V30 BK 21N is a polyamide 6.6, high flow, reinforced with 30% of glass fiber, heat stabilized, for injection moulding. Due to its outstanding flow characteristics, 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

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Heat Aging Resistant • Heat Stabilized	• High Flow • Outstanding Surface Finish	
Uses	• Automotive Applications	• General Purpose	• Pulleys
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		
ISO Designation (ISO 16396)	• PA66,GF30,MH,S14-100		
Resin ID (ISO 1043)	• PA66-GF30		

Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.36	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.90 to 1.0	--	%	
Flow	0.25 to 0.35	--	%	
Water Absorption (24 hr, 73°F)	0.75 to 0.80	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	1.45E+6	943000	psi	ISO 527-1
Tensile Stress (Break)	27600	16000	psi	ISO 527-2
Tensile Strain (Break)	3.0	8.0	%	ISO 527-2
Flexural Modulus	1.25E+6	812000	psi	ISO 178
Flexural Stress	41300	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (73°F)	4.8	7.1	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength				ISO 179/1eU
-22°F	28	30	ft·lb/in ²	
73°F	33	38	ft·lb/in ²	
Notched Izod Impact Strength (73°F)	4.3	6.2	ft·lb/in ²	ISO 180/1A
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	495	--	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	469	--	°F	ISO 75-2/A
Melting Temperature ²	500	--	°F	ISO 11357-3
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate (0.0394 in)	< 3.9	--	in/min	FMVSS 302
Flame Rating (0.06 in)	HB	--		UL 94

Processing Information



Injection	Dry Unit
Drying Temperature	176 °F
Suggested Max Moisture	0.20 %
Rear Temperature	509 to 527 °F
Middle Temperature	518 to 536 °F
Front Temperature	536 to 554 °F
Mold Temperature	140 to 194 °F

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.

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min

