

TECHNYL STAR® S 218 V35 BLACK 31N

Polyamide 6

Technyl Suppliers

Technical Data

Product Description

TECHNYL STAR® S 218 V35 Black 31N is based on a patented high flow polyamide 6 resin (TechnylStar), heat stabilized, reinforced with 35% of glass fibre, for injection moulding. Due to its outstanding flow characteristics, this grade provides a significant productivity improvement and allows more freedom in mould and part design versus a standard polyamide solutions.

General

Material Status	• Commercial: Active
UL Yellow Card ¹	• E44716-235536
Search for UL Yellow Card	• Technyl Suppliers • TECHNYL STAR®
Availability	• Africa & Middle East • Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber, 35% Filler by Weight
Additive	• Heat Stabilizer
Features	• Good Dimensional Stability • Good Mold Release • Heat Stabilized - Inorganic • High Flow • Outstanding Surface Finish
Uses	• Furniture • General Purpose
Agency Ratings	• EC 1907/2006 (REACH) • UL QMFZ2
RoHS Compliance	• RoHS Compliant
Appearance	• Black • Natural Color
Forms	• Pellets
Processing Method	• Injection Molding • MuCell® Injection Molding
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)
Resin ID (ISO 1043)	• PA6-GF35

Physical	Dry	Conditioned	Unit	Test Method
Density	1.41	--	g/cm ³	ISO 1183/A
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.20	--	%	
Water Absorption				ISO 62
24 hr, 23°C	0.90	--	%	
Equilibrium, 23°C, 50% RH	1.9	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	11000	7400	MPa	ISO 527-1/1A
Tensile Stress (Break, 23°C)	195	115	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	3.0	3.5	%	ISO 527-2
Flexural Modulus (23°C)	10000	6200	MPa	ISO 178
Flexural Stress (23°C)	275	195	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	8.0	--	kJ/m ²	
23°C	10	15	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	40	--	kJ/m ²	
23°C	55	65	kJ/m ²	
Notched Izod Impact Strength (23°C)	10	15	kJ/m ²	ISO 180
Unnotched Izod Impact Strength (23°C)	75	80	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Af
1.8 MPa, Unannealed	210	--	°C	
Melting Temperature	222	--	°C	ISO 11357-3



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Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (3.2 mm)	HB	--		UL 94
Glow Wire Flammability Index (1.6 mm)	650	--	°C	IEC 60695-2-12

Injection	Dry Unit
Drying Temperature	80 °C
Suggested Max Moisture	0.20 %
Rear Temperature	230 to 235 °C
Middle Temperature	235 to 240 °C
Front Temperature	240 to 245 °C
Mold Temperature	60 to 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 mini -20°C. Recommended time 2-4h

Injection Advice:

- For reinforced polyamides, the TECHNYL® manufacturers recommend 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

Notes

¹ A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

² Typical properties: these are not to be construed as specifications.



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Where to Buy

Supplier

Technyl Suppliers

Web: <http://www.technyl.com>

Distributor

Amco Polymers

Telephone: 800-262-6685

Web: <http://www.amcopolymers.com/>

Availability: North America

Bamberger Polymers, Inc.

Bamberger Polymers is a global distribution company. Contact Bamberger Polymers for availability of individual products by country.

Telephone: 516-622-3600

Web: <http://www.bambergerpolymers.com/>

Availability: Canada, Mexico, United States

GAZECHIM PLASTIQUES

GAZECHIM PLASTIQUES is a Pan European distribution company. Contact GAZECHIM PLASTIQUES for availability of individual products by country.

Telephone: +33-4-67-49-55-37

Web: <http://www.gazechim.com/>

Availability: France

TER HELL Plastic GmbH

TER HELL Plastic is a Pan European distribution company. Contact TER HELL Plastic for availability of individual products by country.

Telephone: +49-2366-5661-0

Web: <https://www.terplastics.com/>

Availability: Germany

Ultrapolymers

Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.

Telephone: +32-11-57-95-57

Web: <http://www.ultrapolymers.com/>

Availability: Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Macedonia, Netherlands, Norway, Portugal, Romania, Serbia, Slovakia, Slovenia, South Africa, Spain, Sweden, Turkey, United Kingdom

