

TECHNYL STAR® AFX 60G1 V45 GREY 2633

Polyamide 66

Technyl Suppliers

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

TECHNYL STAR® AFX 60G1 V45 Grey 2633 is a high flow polyamide 66 based on a non-halogenated flame retardant system, reinforced of 45% of glass fiber, heat stabilized, for injection moulding. This grade offers excellent electrical properties combined with flame retardancy performance

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet
UL Yellow Card ²	• E44716-101350125 • E507491-104288128
Search for UL Yellow Card	• Technyl Suppliers • TECHNYL STAR®
Availability	• Europe
Filler / Reinforcement	• Glass Fiber, 45% Filler by Weight
Additive	• Flame Retardant • Heat Stabilizer
Features	• Good Mold Release • High Flow • Halogen Free • High Stiffness • Outstanding Surface Finish
Uses	• Electrical/Electronic Applications
Agency Ratings	• EC 1907/2006 (REACH) • EN 45545 • UL QMFZ2
Appearance	• Blue • Grey
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)
Resin ID (ISO 1043)	• PA66-GF45 FR(40)

Physical	Dry	Conditioned	Unit	Test Method
Density	1.57	--	g/cm ³	ISO 1183/A
Molding Shrinkage				ISO 294-4
Across Flow	0.65	--	%	
Flow	0.35	--	%	
Water Absorption (24 hr, 23°C)	0.60	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	17300	12000	MPa	ISO 527-1/1A
Tensile Stress (Break, 23°C)	180	130	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	2.0	3.1	%	ISO 527-2
Flexural Modulus (23°C)	13400	10900	MPa	ISO 178
Flexural Stress (23°C)	290	210	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	9.7	11	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	64	59	kJ/m ²	ISO 179/1eU
Notched Izod Impact Strength (23°C)	8.0	10	kJ/m ²	ISO 180
Unnotched Izod Impact Strength (23°C)	53	53	kJ/m ²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/Af
1.8 MPa, Unannealed	250	--	°C	
Melting Temperature	263	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	6.7E+15	--	ohms	IEC 60093
Volume Resistivity	1.1E+15	--	ohms-cm	IEC 60093
Electric Strength (2.00 mm)	44	--	kV/mm	IEC 60243-1
Comparative Tracking Index (Solution A)	600	--	V	IEC 60112



TECHNYL STAR® AFX 60G1 V45 GREY 2633

Polyamide 66

Technyl Suppliers

PROSPECTOR®

www.ulprospector.com

Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.8 mm	V-0	--		
1.6 mm	V-0	--		
3.2 mm	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.8 mm	960	--	°C	
1.6 mm	960	--	°C	
Oxygen Index	34	--	%	ISO 4589-2

Injection	Dry Unit
Drying Temperature	80 °C
Suggested Max Moisture	0.20 %
Rear Temperature	260 to 270 °C
Middle Temperature	265 to 275 °C
Front Temperature	265 to 280 °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:

- All reinforced, flame retardant compounds generate some level of abrasion/corrosion to the steel processing equipment. These issues may be magnified by using incorrect processing conditions (temperatures, residence time, moisture level ...) during the moulding process. Therefore, the TECHNYL® manufacturers recommend you adhere to the processing conditions detailed in this technical data sheet. For equipment that comes into contact with molten flame retardant compounds, the TECHNYL® manufacturers advise you to use a steel with high chromium and high carbon content (having a minimum concentration of 16% Chromium) to prevent corrosion and abrasion. For the correct reference of steel associated to flame retardant compounds' processing, please refer to your equipment manufacturers. 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 These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² 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.

³ Typical properties: these are not to be construed as specifications.



TECHNYL STAR® AFX 60G1 V45 GREY 2633

Polyamide 66

Technyl Suppliers

PROSPECTOR®

www.ulprospector.com

Where to Buy

Supplier

Technyl Suppliers

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

Distributor

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

