

TECHNYL eXten® D 218CR V33 BLACK

Polyamide 610 + PA 66

Technyl Suppliers

Technical Data

Product Description

TECHNYL eXten® D 218CR V33 Black is a glass fiber reinforced grade based on polyamide blend of polyamide 6.10 and polyamide 66, heat stabilized, for injection moulding. This grade shows outstanding resistance to hydrolysis and chemical resistance to long life automotive coolants. It also offers an excellent crack resistance to calcium chloride road salts, good injection process ability, high surface aspect quality, and high overall mechanical and thermal properties.

General

Material Status	• Commercial: Active		
Search for UL Yellow Card	• Technyl Suppliers • TECHNYL eXten®		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight		
Additive	• Hydrolysis Resistant		
Features	• Chemical Resistant • Good Dimensional Stability • Good Flow • Good Surface Finish	• Heat Stabilized - Inorganic • Hydrolysis Resistant • Low Moisture Absorption • Road Salt Resistant	• Ultra High Glycol Resistance • Weldable
Uses	• Automotive Applications		
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1)	• Viscosity vs. Shear Rate (ISO 11403-2)	
Resin ID (ISO 1043)	• PA610+PA66-GF33		

Physical	Dry	Conditioned	Unit	Test Method
Density	1.35	--	g/cm ³	ISO 1183/A
Molding Shrinkage				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.25	--	%	
Water Absorption				
24 hr, 23°C	0.30	--	%	ISO 62
Saturation, 23°C	3.6	--	%	ISO 62
Equilibrium, 23°C, 50% RH	1.3	--	%	ISO 1110
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	11300	8900	MPa	ISO 527-1/1A
Tensile Stress (Break, 23°C)	196	132	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	3.3	4.8	%	ISO 527-2
Flexural Modulus (23°C)	10200	8000	MPa	ISO 178
Flexural Stress (23°C)	280	220	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	10	--	kJ/m ²	
23°C	15	13	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	70	--	kJ/m ²	
23°C	94	--	kJ/m ²	



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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	225	--	°C	ISO 75-2/Bf
1.8 MPa, Unannealed	218	--	°C	ISO 75-2/Af
Melting Temperature	220 to 260	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+15	--	ohms-cm	IEC 60093
Electric Strength (2.00 mm)	34	--	kV/mm	IEC 60243-1
Comparative Tracking Index (Solution B)	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.40 mm)	HB	--		UL 94

Injection	Dry Unit
Drying Temperature	80 °C
Drying Time	2.0 to 4.0 hr
Suggested Max Moisture	0.20 %
Rear Temperature	265 to 275 °C
Middle Temperature	270 to 280 °C
Front Temperature	275 to 285 °C
Mold Temperature	70 to 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 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 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

