



TECHNYL EXTEN D 219WFC V50 BLACK

(provisional data Sheet)

Description

TECHNYL®eXten D 219WFC V50 Black is a polyamide 6.10, reinforced with 50% of glass fibre, organically stabilized, for injection moulding. Certified for water and food contact. This product is available in black color.

Key Properties

Suitable for food contact
Dimensional stability
Mechanical performance after ageing
Low water absorption

Benefits

This product offers lower water uptake, higher dimensional stability and enhanced chlorine resistance versus standard PA 6.6.

It offers too an enhanced corrosion resistance, a reduction in lead levels versus standard metal solutions and an increase in ease of processing and part design freedom versus metal solutions and other plastics. This product is under approval for direct contact with food contact, drinking water as per ACS, KTW and WRAS standards.

Applications

It is used for cold and warm water plumbing components including, but not limited to, components in contact with drinking water systems globally where elevated levels of chlorine could be present and mechanical requirements are beyond the limits of 30% glass fiber compounds.

Properties

Typical values of properties are for black grades

	Standards	Unit	Values	
			d.a.m.	Cond.
Physical				
Water absorption(24h at 23°C)	ISO 62	%	0,24	
Water absorption(At saturation)	ISO 62	%	2	
Density	ISO 1183/A	g/cm ³	1,50	
Molding shrinkage Parallel	RHODIA	%	0,33	
Molding shrinkage normal or perpendicular	RHODIA	%	0,54	
Molding Shrinkage Isotropy	RHODIA		0,61	
Mechanical				
Tensile Modulus	ISO 527 Type 1A	MPa	16000	
Tensile strength at break	ISO 527 Type 1A	MPa	200	
Elongation at break	ISO 527 Type 1A	%	3,60	
Flexural modulus	ISO 178	MPa	12350	
	ASTM D-790	MPa	11800	
Flexural maximum stress	ISO 178	MPa	310	
	ASTM D-790	MPa	294	
Charpy notched impact strength	ISO 179/1eA	kJ/m ²	15	
Izod notched impact strength	ISO 180/1A	kJ/m ²	15	
Flammability				
Flammability (Thickness: 1,6 mm)	ISO 1210 / UL94			HB
Glow Wire Flammability Index (Thickness: 1,6 mm)	ISO 60695-2-12	°C		700
Thermal				
Melting Temperature	ISO 11357	°C	225	
Heat deflection temperature (1,8 MPa)	ISO 75/Af	°C	208	
Coef of Linear thermal expansion normal or perpendicular (23°C to 85°C)	ISO 11359	E-5/°C	32	
Coef of Linear thermal expansion parallel (23°C to 85°C)	ISO 11359	E-5/°C	154	
Crystallization temperature	ISO 11357	°C	195	
Electrical				
Comparative tracking index (Sol A)	IEC 60112	V	600	
Dielectric strength	IEC 60243	kV/mm	26	
Dissipation factor	IEC 60250		0,018	
Relative permittivity	IEC 60250		3,70	
Surface resistivity	IEC 60093	Ohm	6,1E 16	
Volume resistivity	IEC 60093	Ohm/cm	2,6E 15	

	Standards	Unit	Values	
			d.a.m.	Cond.
Specific				
Identification code				PA610-GF50

d.a.m. = dry as moulded

Cond = conditioned

Processing Guide

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.

Recommended Maximum water content: 0,2 %

Drying conditions: 90 °C

Recommended moulding conditions

Barrel Temperatures:

- feed zone 230 - 245 °C

- compression zone 230 - 245 °C

- mixing zone 240 - 255 °C

Mould temperatures: 70 - 100 °C

Steel advice for tools

For glass fibers reinforced polyamide, Solvay recommends the use of steel with a high content of Carbon and purified for polishing to avoid or limit the abrasion. For example: Z38CDV5W or Z160CDV12.

Disclaimer

The information contained in this document is given in good faith based on our current knowledge. It is only an indication and it is in no way binding. This information must on no account be used as a substitutive for necessary prior tests which alone can ensure that a product is suitable for a given use. ANY WARRANTY OF PRODUCT PERFORMANCE, MERCHANDABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS EXPRESSLY EXCLUDED. Users are responsible for ensuring compliance with local legislation and for obtaining the necessary certifications and authorizations. Users are requested to check that they are in possession of the latest version of this document, and Solvay is at their disposal to supply any additional information.

Safety information

Detailed information regarding safety are available on the safety data sheet (SDS).
SDS is sent with the first material order, or available by contacting our customer services

Regulations compliance

Grades produced or imported in Europe comply with directive 453/2010/EC, which amends REACH directive 1907/2006/EC

This grade complies with RoHS directive 2002/95/EC

Customer services

Our customer services are not only concerned with manufacturing and supply of Engineering Plastics products. We are available to assist our customers in finding technical solutions that meet their requirements. Specific support is in particular offered on:

- Material selection
- Material testing
- Parts design advice, training for design engineers
- Part testing
- Processing through different technologies
- Assembly and post-processing technology expertise
- Parts optimization through Computer Aided Design

You can find more information on Solvay/Rhodia Product range on our internet product finder at the following address:

http://www.rhodia.com/en/markets_and_products/product_finder

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<http://www.solvay.com/en/markets-and-products/featured-products/technyl.html>