



TECHNYL C 548B BLACK

Description

TECHNYL® C 548B Black is an unreinforced polyamide 6, high viscosity, for extrusion blow-moulding.

This product is available in black color.

Key Properties

High melt strength
High barrier properties to fuels
High impact at room and low temperature

Benefits

The product offers a good processing behaviour, high impact resistance even at low temperature and high barrier properties especially to fluids such as fuels and oils, as well as a high toughness.

Applications

This grade is particularly recommended for use in applications such as fuel filler tube or turbo air ducts in automotive industry.

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	%	1,20	
Density	ISO 1183/A	g/cm3	1,05	
Molding shrinkage Parallel	RHODIA	%	1,20	
Molding shrinkage normal or perpendicular	RHODIA	%	1,25	
Molding Shrinkage Isotropy	RHODIA		0,96	
Mechanical				
Tensile Modulus	ISO 527 Type 1A	MPa	1900	500
Tensile strength at yield	ISO 527 Type 1A	MPa	55	45
Elongation at break	ISO 527 Type 1A	%	150	
Flexural modulus	ISO 178	MPa	1750	850
Flexural maximum stress	ISO 178	MPa	70	45
Charpy notched impact strength (23 °C)	ISO 179/1eA	kJ/m2	92	NB
Charpy notched impact strength (-40 °C)	ISO 179/1eA	kJ/m2	20	
Charpy unnotched impact strength (23 °C)	ISO 179/1eU	kJ/m2	NB	NB
Izod notched impact strength (23 °C)	ISO 180/1A	kJ/m2	90	NB
Flammability				
Flammability (Thickness: 1,6 mm)	ISO 1210 / UL94		HB	
Glow Wire Flammability Index (Thickness: 1,6 mm)	ISO 60695-2-12	°C	650	
Thermal				
Melting Temperature	ISO 11357	°C	222	
Heat deflection temperature (1,8 MPa)	ISO 75/Af	°C	55	
Coef of Linear thermal expansion parallel (23°C to 85°C)	ISO 11359	E-5/°C	7	
Electrical				
Dielectric strength	IEC 60243	kV/mm		17
Dissipation factor	IEC 60250		0,020	0,120
Relative permittivity	IEC 60250		3,70	4
Surface resistivity	IEC 60093	Ohm	1E 14	1E 11
Volume resistivity	IEC 60093	Ohm/cm	1E 15	1E 11
Specific				
Identification code				PA6

Standards	Unit	Values	
		d.a.m.	Cond.

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: 0,08 %

Drying conditions: 8h at 80°C with dry air, dew point -35°C

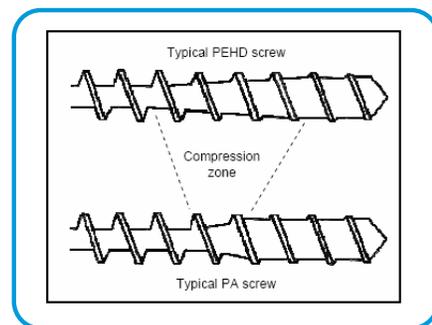
Scrap management

Recommended regrinded scraps use: 70 %

Scrap must be handled carefully and dried prior to usage

Blow-moulding parameters

Temperature (°C)	
Feeding zone:	200 - 220 °C
Screw:	220 - 240 °C
Adapter:	220 - 240 °C
Head:	220 - 240 °C
Die:	215 - 235 °C
Mould:	40 - 60 °C



Blow-moulding machine design

Screw compression rate	3 to 4. Short compression length
Screw type	Pa type (with short transition length, 4D or less) recommended but standard type (with medium transition length, 5 to 7D) acceptable in most cases.
Extrusion technology	Accumulation head recommended. Continuous extrusion acceptable in some cases

Steel advice for tools For unfilled polyamide, Rhodia recommends the use of high alloy steel with a weak chromium content. For example: 35NC6 or 35CD4.

Disclaimer

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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

Unless specified, this grade is not suitable for food contact, medical devices or toy applications

Customer services

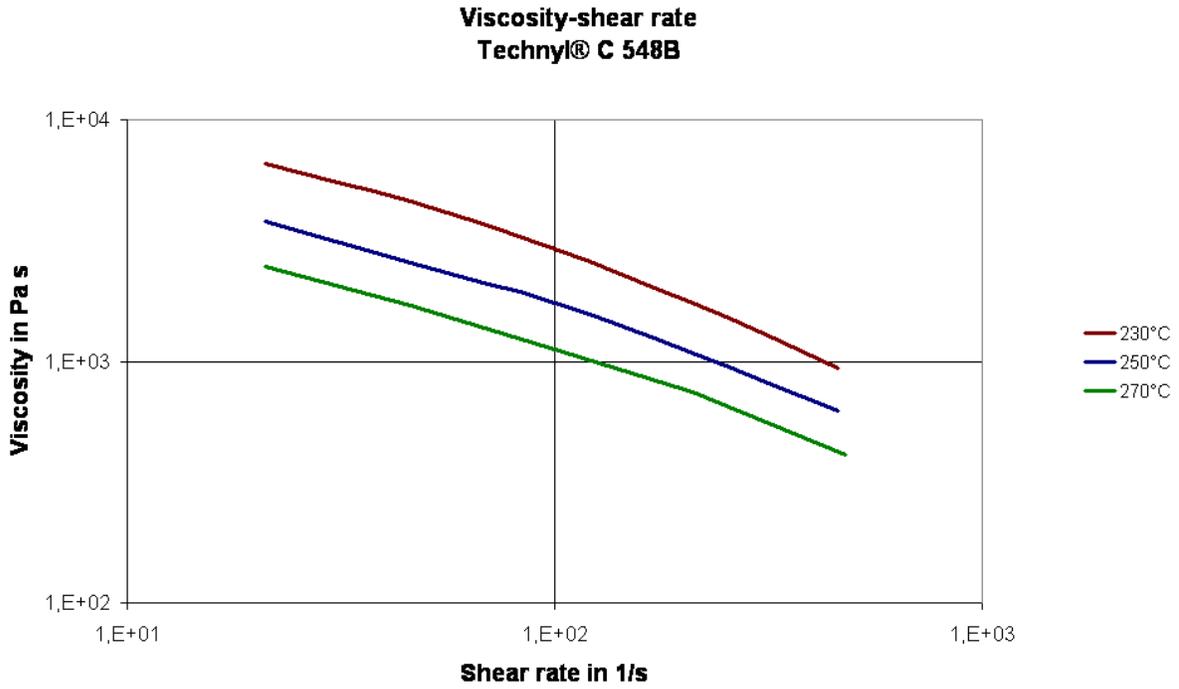
Our customer services are not only concerned with manufacturing and supply of Engineering Plastics products. We are available to assist our customers in finding technical solutions that meet their requirements. Specific support is in particular offered on:

- 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

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— Viscosity-shear rate



— Stress-strain

