



TECHNYL A 216 BLACK 21 N

Description

TECHNYL[®] A 216 Black 21 N is an unreinforced polyamide 66, standard viscosity, for injection moulding. It is available in black color.

Key Properties

Chemical resistance
Good thermal properties

Benefits

This product offers all of the primary properties of unreinforced polyamide 66 : thermal and mechanical properties, chemical resistance, impact and abrasion resistance.

Applications

It is used in a wide variety of industries.

Properties

Typical values of properties are for natural grades

	Standards	Unit	Values	
			d.a.m.	Cond.
Physical				
Water absorption(24h at 23°C)	ISO 62	%	1,30	
Density	ASTM D-792	g/cm3	1,14	
	ISO 1183/A	g/cm3	1,14	
Molding shrinkage Parallel	RHODIA	%	1,90	
Molding shrinkage normal or perpendicular	RHODIA	%	1,90	
Molding Shrinkage Isotropy	RHODIA		1	
Mechanical				
Tensile Modulus	ISO 527 Type 1A	MPa	3000	1400
Tensile strength at yield	ISO 527 Type 1A	MPa	85	60
	ASTM D-638	MPa	85	
Tensile strength at break	ISO 527 Type 1A	MPa	55	40
Elongation at yield	ISO 527 Type 1A	%	4,50	10
Elongation at break	ISO 527 Type 1A	%	50	200
	ASTM D-638	%	30	
Flexural modulus	ISO 178	MPa	3000	1300
	ASTM D-790	MPa	3000	
Flexural maximum stress	ISO 178	MPa	120	70
	ASTM D-790	MPa	125	
Charpy notched impact strength (23 °C)	ISO 179/1eA	kJ/m2	5	10
Charpy unnotched impact strength (23 °C)	ISO 179/1eU	kJ/m2	NB	NB
Izod notched impact strength (23 °C)	ISO 180/1A	kJ/m2	5	9
	ASTM D256	J/m	50	
Izod unnotched impact strength	ISO 180/1U	kJ/m2	NB	NB
Flammability				
Flammability (Thickness: 1,6 mm)	ISO 1210 / UL94		V2	
Flammability (Thickness: 3,2 mm)	ISO 1210 / UL94		V2	
Glow Wire Flammability Index (Thickness: 0,8 mm)	ISO 60695-2-12	°C	650	
Glow Wire Ignition Temperature (Thickness: 1,6 mm)	ISO 60695-2-13	°C	650	
Limit Oxygen Index	ISO 4589		26	

	Standards	Unit	Values	
			d.a.m.	Cond.
Thermal				
Melting Temperature	ISO 11357	°C	263	
Heat deflection temperature (0,45 MPa)	ISO 75/Af	°C	200	
Heat deflection temperature (1,82 MPa)	ISO 75/Af	°C	85	
Heat deflection temperature (0,45 MPa)	ASTM D-648	°C	220	
Heat deflection temperature (1,82 MPa)	ASTM D-648	°C	75	
Coef of Linear thermal expansion normal or perpendicular (23°C to 85°C)	ASTM D-696	E-5/°C	7	
Electrical				
Comparative tracking index (Sol A)	IEC 60112	V	600	600
Comparative tracking index (Sol B)	IEC 60112	V	525	
Dielectric strength	IEC 60243	kV/mm	25	22
Dissipation factor	IEC 60250		0,030	0,080
Relative permittivity	IEC 60250		2,90	3,20
Surface resistivity	IEC 60093	Ohm	1E 15	1E 13
Volume resistivity	IEC 60093	Ohm/cm	1E 15	1E 14
Specific				
Identification code				PA66

d.a.m. = dry as moulded

Cond = conditioned

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 substitute 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.

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: 80 °C

Recommended moulding conditions

Barrel Temperatures:

- feed zone	265 - 275 °C
- compression zone	270 - 280 °C
- mixing zone	280 - 290 °C
Mould temperatures:	60 - 80 °C

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

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

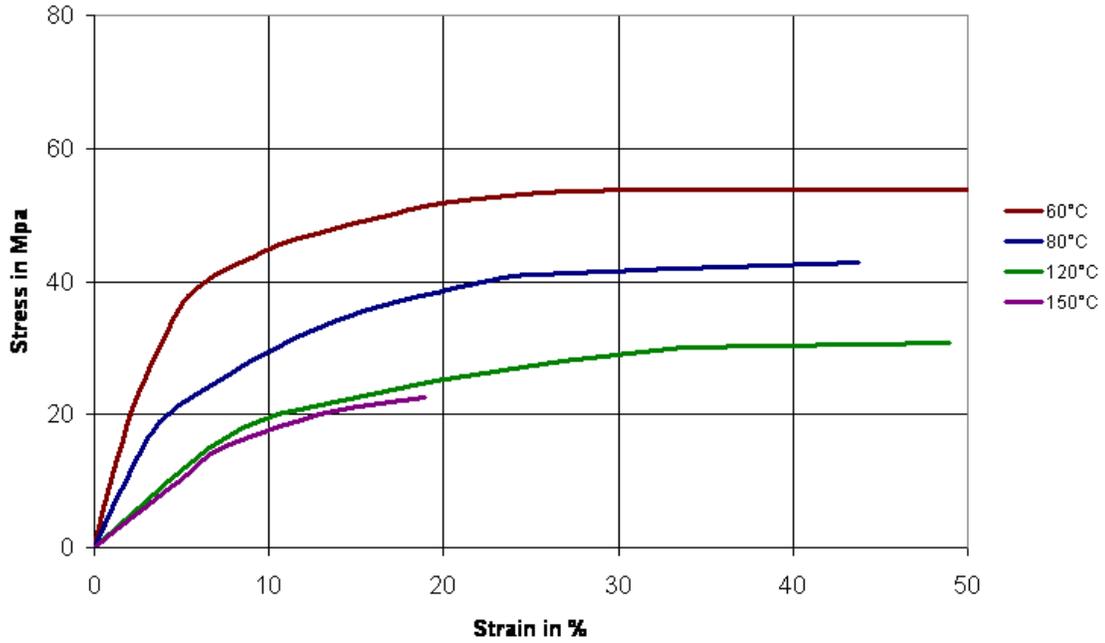
Our customer services are not only concerned with manufacturing and supply of Engineering Plastics products. We are available to assist our customers in finding technical solutions that meet their requirements. Specific support is in particular offered on:

- 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

You can find more information on Solvay Product range by on Technyl.com and the link to the product finder and brochures at the following address:
<http://www.technyl.com/en/download/brochures/index.html>

— Stress-strain

Stress-Strain (dry)
Technyl® A 216



Stress-Strain (cond)
Technyl® A 216

