Engineering Plastics'
TECHNYL®

Product Data Sheet

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TECHNYL A 52G1 MX20 BLACK 61

Description

TECHNYL A 52G1 MX20 BLACK 61 is a 20% mineral fibre reinforced, halogen and red phosphorus free flame retarded grade based on polyamide 66, for injection molding.

This product is available in black.

Key Properties

Glow wire resistance
Dimensional stability

Benefits

This grade offers a glow wire resistance, good finishing and a good dimensional stability.

Applications

It is indicated for pieces with low warping and good behaviour at fire, as for example,
- circuit breakers
- boxes of fusers ...

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SOLVAY

Properties

Typical values of properties are for black grades

	Standards	Unit	Values d.a.m.	Values Cond.
Physical				
Density	ISO 1183/A	g/cm3	1,35	
Mechanical				
Tensile Modulus	ISO 527 Type 1A	MPa	6800	
Tensile strength at break	ISO 527 Type 1A	MPa	60	
Elongation at break	ISO 527 Type 1A	%	1,30	
Flexural modulus	ISO 178	MPa	6000	
Flexural maximum stress	ISO 178	MPa	115	
Charpy unnotched impact strength	ISO 179/1eU	kJ/m2	25	
Flammability				
Flammability (Thickness: 1,6 mm)	ISO 1210 / UL94		V2	
Glow Wire Flammability Index (Thickness: 3,2 mm)	IEC 60695-2-12	°C	960	
Thermal				
Melting Temperature	ISO 3146-A	°C	260	
Heat deflection temperature (0,45 MPa)	ISO 75/Af	°C	230	
Heat deflection temperature (1,8 MPa)	ISO 75/Af	°C	165	
Specific				
Identification code			PA66-MD20 FR(30)	

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 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.

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	260 - 270 °C
- compression zone	265 - 275 °C
- mixing zone	270 - 280 °C
Mould temperatures:	60 - 90 °C

Steel advice for tools

All reinforced flame retardant compounds generate some level of abrasion/corrosion to the steel processing equipment.
These issues can be worsened by using incorrect processing conditions (temperatures, residence time, moisture level ...) during the moulding process. Therefore, Solvay recommends to use the advised processing conditions detailed in this technical data sheet. For equipment that comes into contact with molten flame retarded compounds, Solvay advises to use a steel containing high chromium & high carbon content (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.

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