



TECHNYL A 31T1 MZ40 GREY 174 N

Description

TECHNYL® A 31T1 MZ40 GREY 174N is a brominated flame retardant polyamide 66, reinforced with 40% of mineral fibre, heat stabilized, for injection moulding. This product is available in grey.

Key Properties

Dimensional stability
Glow wire resistance

Benefits

This flame retardant material offers very good dimensional stability and excellent Glow wire performance.

Applications

It is particularly recommended for electrical parts such as:
- low voltage distribution, protection systems, mini circuit breakers, fuse
- holders and terminal blocks

Properties

Typical values of properties are for grey grades

	Standards	Unit	Values	
			d.a.m.	Cond.
Physical				
Water absorption(24h at 23°C)	ISO 62	%	0,43	
Density	ISO 1183/A	g/cm3	1,67	
Mechanical				
Tensile Modulus	ISO 527 Type 1A	MPa	6900	4000
Tensile strength at break	ISO 527 Type 1A	MPa	77	47
Elongation at break	ISO 527 Type 1A	%	1,70	
Charpy notched impact strength (23 °C)	ISO 179/1eA	kJ/m2	2,2	
Charpy unnotched impact strength (23 °C)	ISO 179/1eU	kJ/m2	25	
Flammability				
Flammability (Thickness: 1,6 mm)	ISO 1210 / UL94		V2	
Glow Wire Flammability Index (Thickness: 0,8 mm)	ISO 60695-2-12	°C	960	
Glow Wire Flammability Index (Thickness: 1,6 mm)	ISO 60695-2-12	°C	960	
Glow Wire Flammability Index (Thickness: 3,2 mm)	ISO 60695-2-12	°C	960	
Limit Oxygen Index	ISO 4589		46,5	
Thermal				
Melting Temperature	ISO 11357	°C	263	
Heat deflection temperature (1,8 MPa)	ISO 75/Af	°C	120	
Electrical				
Comparative tracking index (Sol A)	IEC 60112	V	400	
Dielectric strength	IEC 60243	kV/mm	30	30
Specific				
Identification code			PA66-MD40 FR(17)	

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 - 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>