



TECHNYLSTAR AFX 218S V50 BLACK 31N

Description

TECHNYLSTAR™ AFX 218S V50 Black 31N is based on a patented high flow polyamide 66 resin (Technylstar), heat stabilized, reinforced with 50% of glass fibre, for injection moulding. It is available in black color.

Key Properties

High flow
Excellent surface aspect
Heat stabilised
High mechanical performance

Benefits

Due to its outstanding flow characteristics, the product shows exceptional processing behaviour and excellent surface aspect of the finished part.

Applications

The product is particularly suitable for all applications where a high rigidity is required: typically structural parts or brackets for the automotive industry. Its high mechanical performance allows that product to be an alternative to metal parts.

Regional Availability

Asia / Pacific

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 | % | 0,60 | |
| Density | ISO 1183/A | g/cm ³ | 1,57 | |
| Molding shrinkage Parallel | RHODIA | % | 0,34 | |
| Molding shrinkage normal or perpendicular | RHODIA | % | 0,42 | |
| Mechanical | | | | |
| Tensile strength at yield | ASTM D-638 | MPa | 230 | |
| Elongation at break | ASTM D-638 | % | 2,50 | |
| Flexural modulus | ASTM D-790 | MPa | 16000 | |
| Flexural maximum stress | ASTM D-790 | MPa | 355 | |
| Izod notched impact strength | ASTM D256 | J/m | 180 | |
| Rockwell Hardness | ASTM D-786 | R scale | 121 | |
| Flammability | | | | |
| Flammability (Thickness: 3,2 mm) | ISO 1210 / UL94 | | HB | |
| Thermal | | | | |
| Melting Temperature | ISO 11357 | °C | 262 | |
| Heat deflection temperature (1,82 MPa) | ASTM D-648 | °C | 256 | |
| Specific | | | | |
| Identification code | | | PA66-GF50 | |

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 Rhodia 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 270 - 280 °C
- mixing zone 280 - 290 °C

Mould temperatures: 80 - 100 °C

Steel advice for tools For glass fibers reinforced polyamide, Rhodia 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.

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 Rhodia Product range on our internet product finder at the following address:

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