

CELSTRAN[®] PA66-GF50-02-NATURAL CELSTRAN® Long Fibre

50 % Long glass fiber reinforced, heat stabilized, Nylon 6/6

Product information

| Resin Identification Part Marking Code | PA66-LGF50 >PA66-LGF50< | | ISO 1043 ISO 11469 |
|---|--|--|---|
| Typical mechanical properties | | | |
| Tensile modulus Tensile stress at break, 5mm/min Tensile strain at break, 5mm/min Flexural modulus Flexural strength Flexural strength Flexural strength, 23°C Charpy impact strength, -30°C Charpy notched impact strength, 23°C Charpy notched impact strength, -30°C Izod notched impact strength, 23°C Izod impact strength, -40°C Poisson's ratio [C]: Calculated | 2 14700 420 3.8 95 80 49 34 61 | MPa % MPa MPa | ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 178 ISO 178 ISO 178 ISO 179/1eU ISO 179/1eU ISO 179/1eA ISO 179/1eA ISO 180/1A ISO 180/1U |
| | | | |
| Thermal properties Melting temperature, 10°C/min Temperature of deflection under load, 1.8 MPa Temperature of deflection under load, 8 MPa | 261 256 249 | °C | ISO 11357-1/-3 ISO 75-1/-2 ISO 75-1/-2 |
| Physical/Other properties | | | |
| Density | 1560 | kg/m³ | ISO 1183 |
| Injection | | | |
| Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content Melt Temperature Optimum Min. melt temperature Max. melt temperature Screw tangential speed Mold Temperature Optimum Min. mould temperature Max. mould temperature | 2 - 4 ≤0.2 295 285 305 ≤0.2 100 70 120 | % °C °C °C m/s °C °C °C | |
| Hold pressure range | 50 - 100 | мРа | |



CELSTRAN[®] PA66-GF50-02-NATURAL CELSTRAN® Long Fibre

Characteristics

| Processing | Injection Moulding |
|-------------------------|-----------------------------------|
| Delivery form | Pellets |
| Special characteristics | Heat stabilised or stable to heat |
| Additional information | |

Additional information

Injection molding

Preprocessing

PA6&PA66 drying requirements: 4 hrs. @80° C. A dehumidifier or desiccant dryer is recommended.

Processing

Celstran can be processed on a standard injection molding unit. A general purpose metering screw is recommended with a zone distribution of 40% feed, 40% transition, and 20% metering. A free flowing check ring assembly is recommended.

Melt Temp: 300-310°C. Mold Temp: 90-100°C.

Processing Notes

Pre-Drying

CELSTRAN PA should in principle be predried. Because of the necessary low maximum residual moisture content the use of dry air dryers is recommended. The dew point should be =< -30 °C. The time between drying and processing should be as short as possible.

Storage

Note: Material can be over dried and may discolor.

Printed: 2025-05-29

Page: 2 of 2

Revised: 2024-04-15 Source: Celanese Materials Database

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colourants or other additives may cause significant variations in data values. Properties of moulded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Other than those product expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.

© 2025 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC.