



# CELSTRAN® TPU-GF40-01 AF3001 NATURAL CELSTRAN® Long Fibre

The Celstran ® long glass fiber reinforced TPU materials provide very low moisture absorption, good creep resistance, excellent chemical resistance and extreme toughness.

#### **Product information**

Resin Identification	TPU-LGF40	ISO 1043
Part Marking Code	>TPU-LGF40<	ISO 11469

#### Typical mechanical properties

Tensile modulus	11500	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	214	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5	%	ISO 527-1/-2
Flexural modulus	10600	MPa	ISO 178
Flexural strength	330	MPa	ISO 178
Charpy notched impact strength, 23°C	51	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, 23°C		kJ/m <sup>2</sup>	ISO 180/1A
Poisson's ratio	0.33 <sup>[C]</sup>		

[C]: Calculated

### Thermal properties

Temperature of deflection under load, 1.8 MPa,	123 °C	ISO 75-1/-2
--	--------	-------------

annealed

#### Physical/Other properties

Density	1520 kg/	m <sup>3</sup> ISO 1183

Injection

Ejection temperature 140 °C

## Characteristics

Processing Injection Moulding

Delivery form Pellets

Special characteristics Low Warpage

Printed: 2025-05-30 Page: 1 of 1

Revised: 2024-07-23 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 conditions and environmental exposure. Other than those products 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 information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to 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, pr

© 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.