

FORTRON® FX650T6

Polyphenylene sulfide

Fortron FX650T6 is a 50% glass-fiber and mineral reinforced grade with improved impact and heat shock resistance.

Product information

Resin Identification	PPS-(GF+MD)5 0	ISO 1043
Part Marking Code	>PPS-(GF+MD)50<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.3 %	ISO 294-4, 2577
Moulding shrinkage, normal	0.5 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	12200 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	130 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2 %	ISO 527-1/-2
Flexural modulus	12000 MPa	ISO 178
Flexural strength	180 MPa	ISO 178
Charpy impact strength, 23°C	41.5 kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	47.7 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	9 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	8 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.33 ^[C]	

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	280 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	270 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	15 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	50 E-6/K	ISO 11359-1/-2

Electrical properties

Volume resistivity	>1E13 Ohm.m	IEC 62631-3-1
--------------------	-------------	---------------

Physical/Other properties

Water absorption, 2mm	0.07 %	Sim. to ISO 62
Density	1700 kg/m ³	ISO 1183

Injection

Drying Recommended	yes
Drying Temperature	130 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.02 %
Melt Temperature Optimum	330 °C
Min. melt temperature	310 °C
Max. melt temperature	340 °C

FORTRON® FX650T6

Polyphenylene sulfide

Screw tangential speed	0.2 - 0.3 m/s
Mold Temperature Optimum	120 °C
Min. mould temperature	80 °C
Max. mould temperature	160 °C
Hold pressure range	30 - 70 MPa
Ejection temperature	220 °C

Characteristics

Processing	Injection Moulding
Special characteristics	High impact or impact modified, High Flow

Additional information

Processing Notes

Pre-Drying

Fortron should, in principle, be pre-dried. 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.

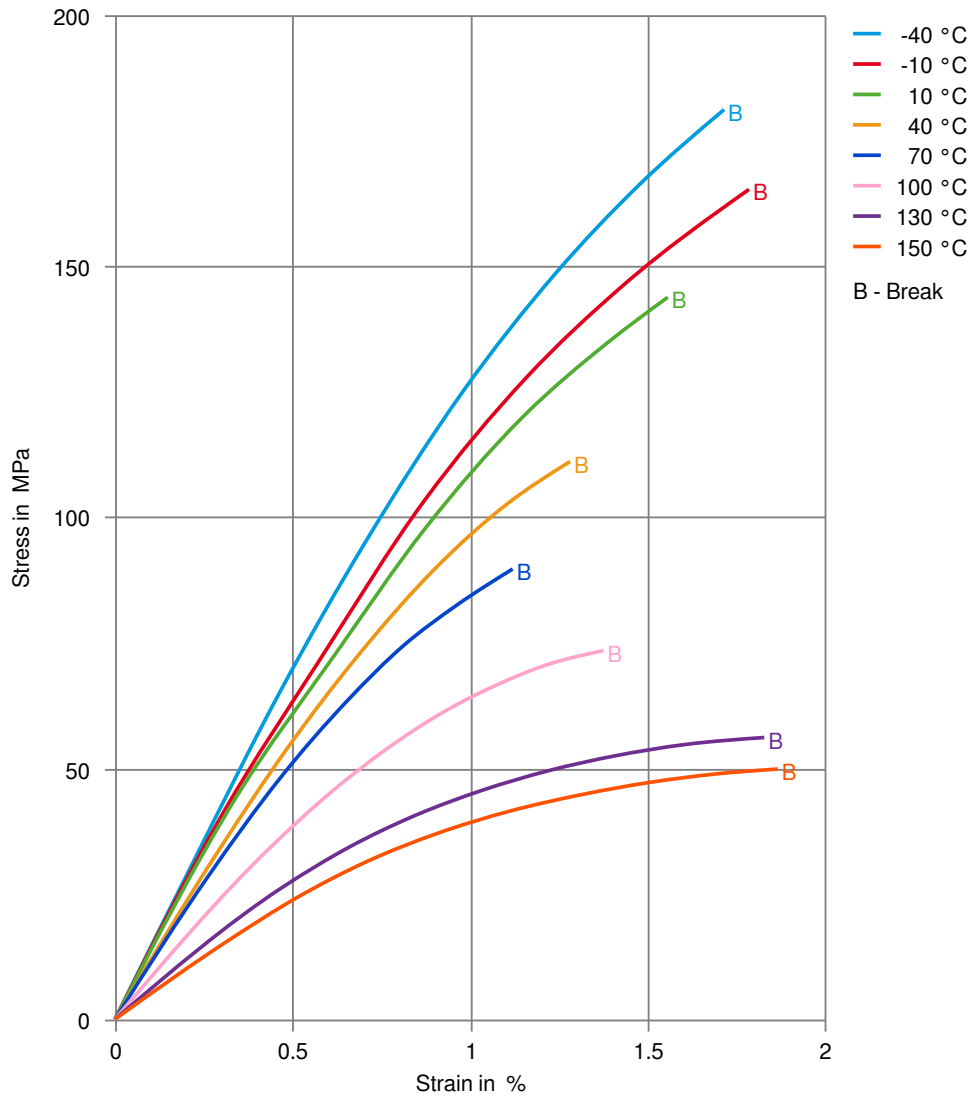
Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Stellantis	B62 0300 / 61/222E/220M+/C2B/C5	01378_20_04006

FORTRON® FX650T6

Polyphenylene sulfide

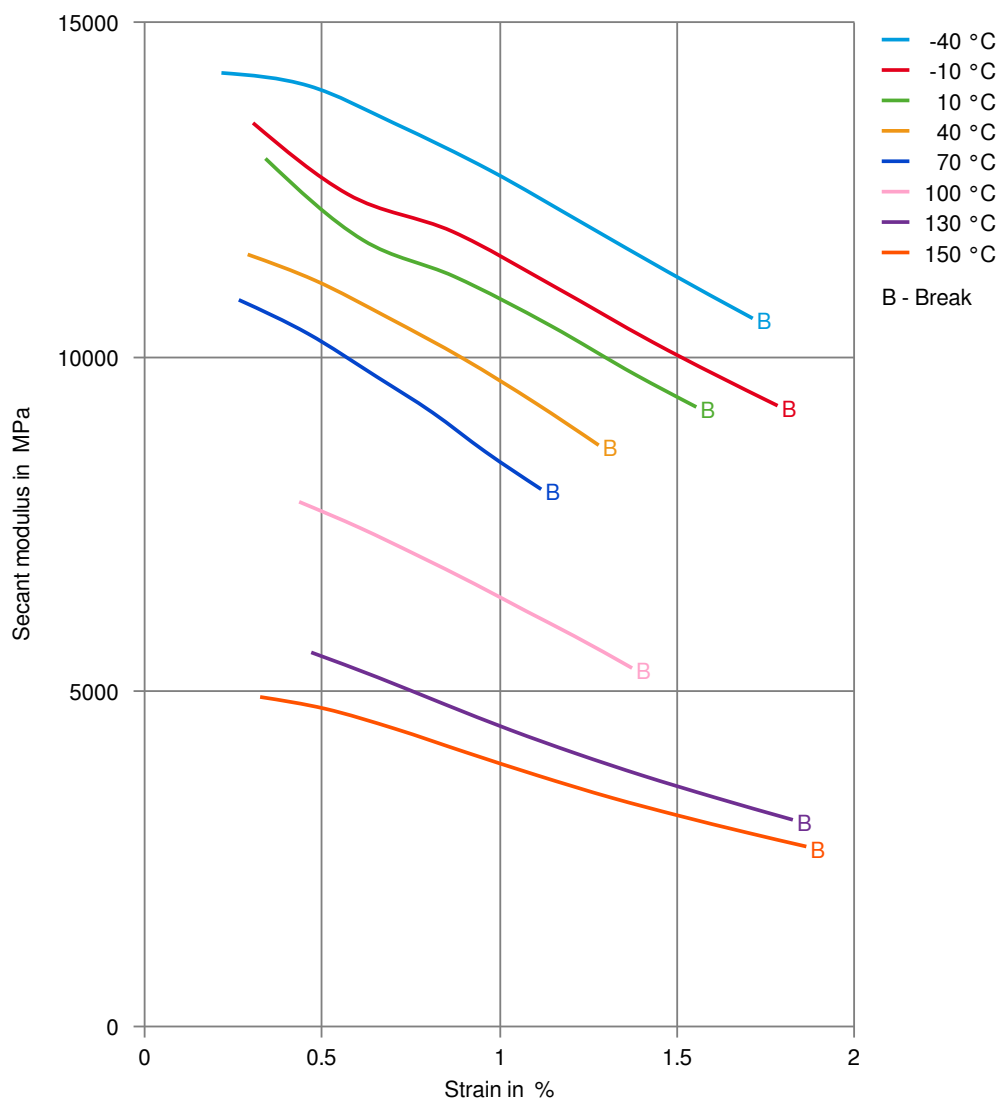
Stress-strain



FORTRON® FX650T6

Polyphenylene sulfide

Secant modulus-strain



Printed: 2025-05-30

Page: 4 of 4

Revised: 2025-03-20 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 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, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed for additional technical 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.