

FORTRON® FX72T6

Polyphenylene sulfide

Fortron® FX72T6 is an unreinforced, impact modified PPS with high flowability and high impact resistance suitable for injection molding.

The mechanical properties reported on this data sheet refer to a mold wall temperature of 135°C.

Product information

Resin Identification	PPS	ISO 1043
Part Marking Code	>PPS<	ISO 11469

Rheological properties

Melt mass-flow rate	35 g/10min	ISO 1133
Melt mass-flow rate, Temperature	310 °C	
Melt mass-flow rate, Load	2.16 kg	
Moulding shrinkage, parallel	1.3 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.3 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	1680 MPa	ISO 527-1/-2
Tensile stress at break, 50mm/min	40 MPa	ISO 527-1/-2
Tensile strain at break, 50mm/min	20 %	ISO 527-1/-2
Flexural modulus	1700 MPa	ISO 178
Charpy impact strength, 23°C	N kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	10 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	10 kJ/m ²	ISO 180/1A
Izod impact strength, 23°C	N kJ/m ²	ISO 180/1U
Poisson's ratio	0.411	

Thermal properties

Temperature of deflection under load, 1.8 MPa	100 °C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	122 °C	ISO 306

Flammability

Burning Behav. at thickness h	V-0 class	IEC 60695-11-10
Thickness tested	3 mm	IEC 60695-11-10
Oxygen index	48.5 %	ISO 4589-1/-2

Electrical properties

Relative permittivity, 1MHz	3.1	IEC 62631-2-1
Dissipation factor, 1MHz	3 E-4	IEC 62631-2-1

Physical/Other properties

Density	1180 kg/m ³	ISO 1183
---------	------------------------	----------

FORTRON® FX72T6

Polyphenylene sulfide

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
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
Back pressure	3.5 MPa
Ejection temperature	225 °C

Characteristics

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

Additional information

Injection molding

Processing

Injection Molding:

Drying – alternate 80°C, approx. 6 hours

Mold surface temperature – a wide range of 30°C to 135°C is possible. Highest crystallinity will often be achieved at higher mold temperature. Depending on the part design, improved surface appearance and demolding may be achieved at 50°C to 70°C.

Processing Notes

Pre-Drying

Fortron® 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.

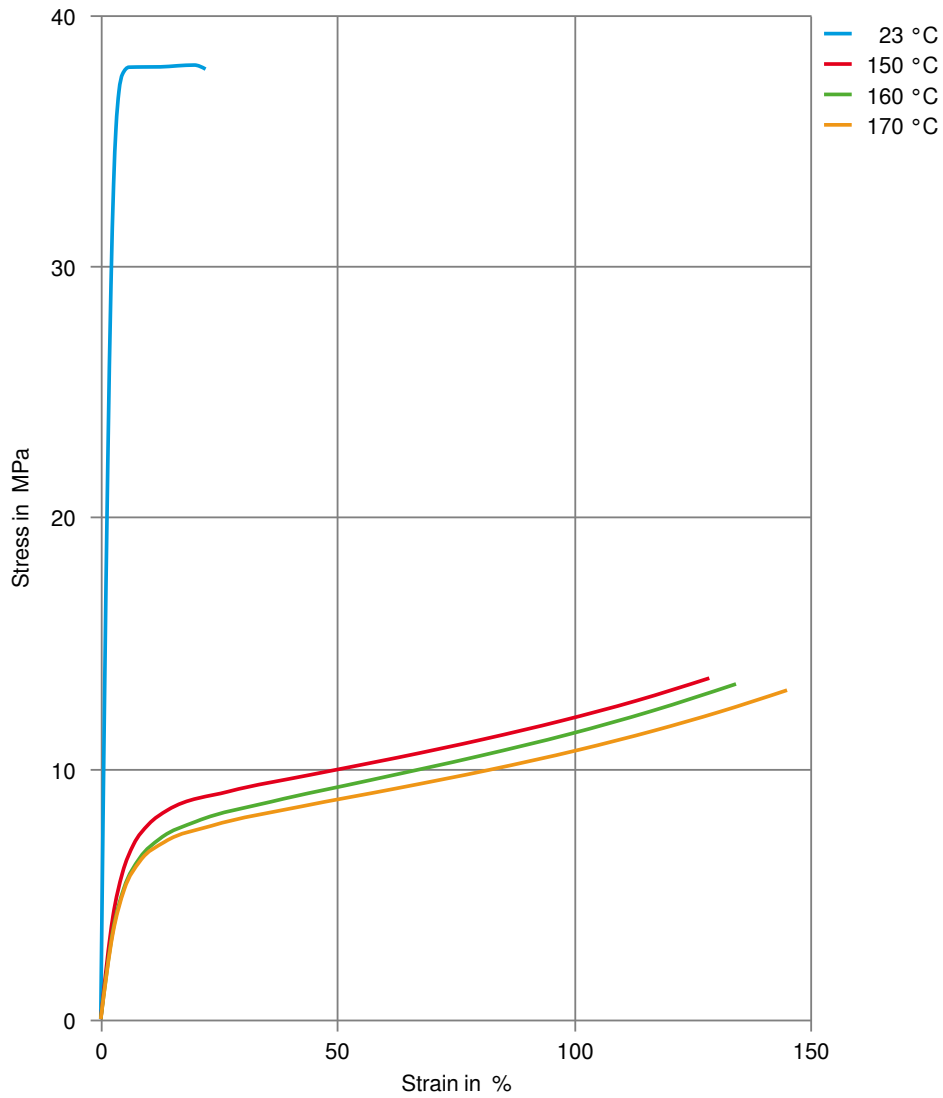
Automotive

OEM	STANDARD
Ford	WSS-M4D1063-A2

FORTRON® FX72T6

Polyphenylene sulfide

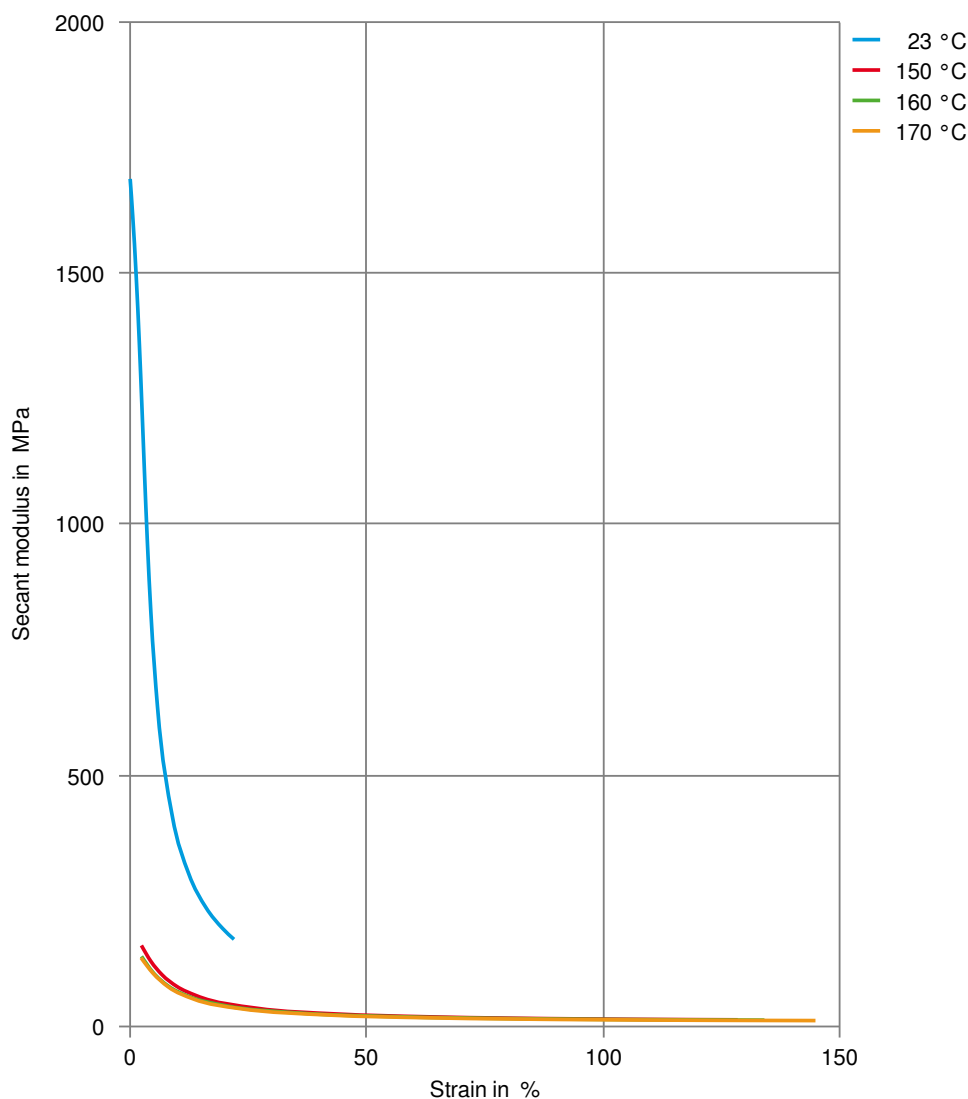
Stress-strain



FORTRON® FX72T6

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.