



FORTRON® FX40T1

Polyphenylene sulfide

Fortron® FX40T1 is an unreinforced, impact-modified high toughness poly(phenylene sulfide)

Product information

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

Typical mechanical properties

Tensile modulus	2420	MPa	ISO 527-1/-2
Tensile stress at break, 50mm/min	48	MPa	ISO 527-1/-2
Flexural modulus	2800	MPa	ISO 178
Flexural stress at 3.5%	85	MPa	ISO 178
Charpy notched impact strength, 23°C	50	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	10	kJ/m²	ISO 179/1eA
Poisson's ratio	0.411		

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

Characteristics

Processing Injection Moulding, Extrusion, Blow Moulding

Special characteristics High impact or impact modified

Printed: 2025-05-30 Page: 1 of 3

Revised: 2025-03-20 Source: Celanese Materials Database

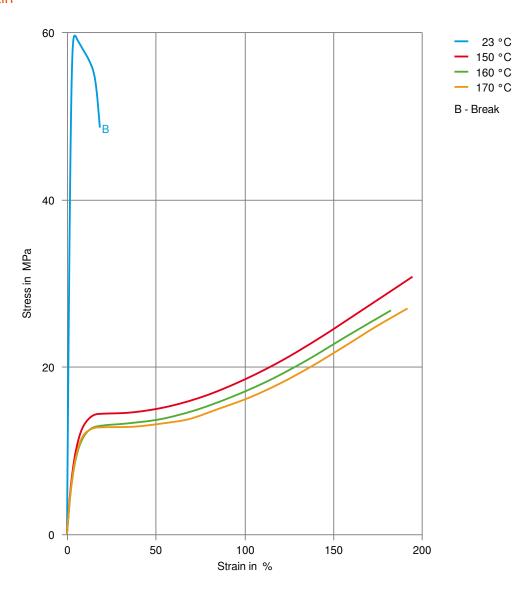




FORTRON® FX40T1

Polyphenylene sulfide

Stress-strain



Printed: 2025-05-30 Page: 2 of 3

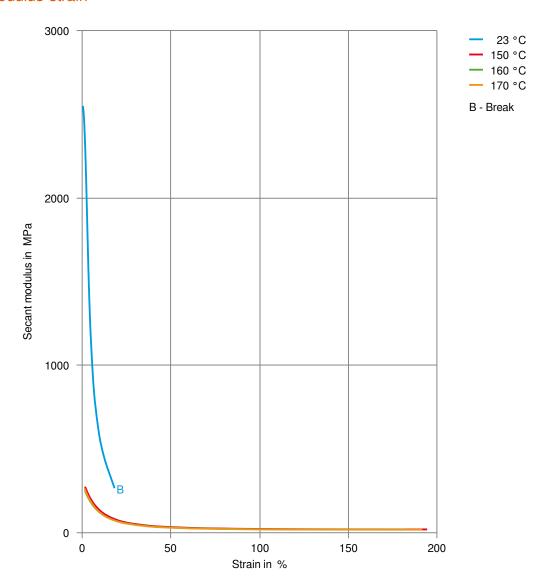




FORTRON® FX40T1

Polyphenylene sulfide

Secant modulus-strain



Printed: 2025-05-30 Page: 3 of 3

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 e

© 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.