Celanese
The chemistry inside innovation™

# FORTRON® ICE 716L

## Polyphenylene sulfide

FORTRON ICE 716L is a 65% glass fiber-mineral reinforced polyphenylene sulfide with improved mechanical properties, that belongs to our new generation of Fortron® PPS.
This new technology allows optimization of molding conditions with faster cycle times. Due to the faster crystallization of the material at a higher temperature, the option of mold wall temperature reduction can be subject of advanced process optimization. The potential for optimization of Fortron® ICE by cycle time reduction is possible by standard cavity surface temperatures of 140 °C. The potential for lowering the mold temperature must be checked individually and it depends on process and part design.

## Product information

| | | |
|---|---|---|
| Resin Identification | PPS-(GF+MD)65 | ISO 1043 |
| Part Marking Code | >PPS-(GF+MD)65< | ISO 11469 |

## Rheological properties

| | | | |
|---|---|---|---|
| Molding shrinkage range, parallel | 0.2 - 0.5 | % | ISO 294-4, 2577 |
| Molding shrinkage range, normal | 0.3 - 0.6 | % | ISO 294-4, 2577 |

## Typical mechanical properties

| | | | |
|---|---|---|---|
| Tensile modulus | 3.12E6 | psi | ISO 527-1/-2 |
| Tensile stress at break, 5mm/min | 23200 | psi | ISO 527-1/-2 |
| Tensile strain at break, 5mm/min | 1.2 | % | ISO 527-1/-2 |
| Flexural modulus | 3.05E6 | psi | ISO 178 |
| Flexural strength | 37700 | psi | ISO 178 |
| Charpy impact strength, 23 °C | 14.3 | ftlb/in² | ISO 179/1eU |
| Charpy notched impact strength, 23 °C | 4.76 | ftlb/in² | ISO 179/1eA |

## Thermal properties

| | | | |
|---|---|---|---|
| Temperature of deflection under load, 1.8 MPa | 518 | °F | ISO 75-1/-2 |
| Temperature of deflection under load, 8 MPa | 428 | °F | ISO 75-1/-2 |
| Coefficient of linear thermal expansion (CLTE), parallel | 0.08 | E-4/°F | ISO 11359-1/-2 |
| Coefficient of linear thermal expansion (CLTE), normal | 0.172 | E-4/°F | ISO 11359-1/-2 |

## Physical/Other properties

| | | | |
|---|---|---|---|
| Water absorption, 2mm | 0.02 | % | Sim. to ISO 62 |
| Density | 0.0704 | lb/in³ | ISO 1183 |

## Injection

| | | |
|---|---|---|
| Drying Recommended | yes | |
| Drying Temperature | 266 | °F |
| Drying Time, Dehumidified Dryer | 2 - 4 | h |
| Processing Moisture Content | ≤0.02 | % |
| Melt Temperature Optimum | 626 | °F |
| Min. melt temperature | 590 | °F |
| Max. melt temperature | 644 | °F |
| Max. screw tangential speed | 0.2 - 0.3 | m/s |
| Mold Temperature Optimum | 284 | °F |

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| | |
|---|---|
| Min. mold temperature | 257 °F |
| Max. mold temperature | 320 °F |
| Hold pressure range | 4350 - 10200 psi |
| Back pressure | 435 psi |
| Ejection temperature | 462 °F |

## Automotive

| OEM | STANDARD |
|---|---|
| Hyundai | MS244-02 Type A-2 |

## Characteristics

| | |
|---|---|
| Processing | Injection Molding |
| Additives | Nucleated |
| Special characteristics | Flame retardant, High Flow |



Revised: 2026-09-08 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. Colorants or other additives may cause significant variations in data values. Properties of molded 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.
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