

Celanese FORTRON® 6165D8 Mineral and Glass Reinforced Polyphenylene Sulfide (PPS)

Categories: [Polymer](#); [Thermoplastic](#); [Polyphenylene Sulfide \(PPS\)](#); [Polyphenylene Sulfide \(PPS\)](#), [Mineral/Glass-Fiber Filled](#)

Material Notes: Description: Fortron 6165D8 offers a unique balance of properties based on a high mineral and glass reinforced composition, complementing our other 6165A4/6165A6 product offerings. The heat resistance under load bearing conditions is excellent for this product. As with all Fortron grades this product is inherently flame-retardant. Applications include electronic and industrial components.

Information provided by Celanese Corporation.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.95 g/cc	0.0704 lb/in ³	ISO 1183
Water Absorption at Saturation	0.020 %	0.020 %	ISO 62
Linear Mold Shrinkage	0.0020 - 0.0060 cm/cm	0.0020 - 0.0060 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0030 - 0.0070 cm/cm	0.0030 - 0.0070 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	115 MPa	16700 psi	5 mm/min; ISO 527-2/1A
Elongation at Break	1.0 %	1.0 %	5 mm/min; ISO 527-2/1A
Flexural Strength	190 MPa	27600 psi	ISO 178
Flexural Modulus	18.0 GPa	2610 ksi	ISO 178
Izod Impact, Notched (ISO)	6.00 kJ/m ²	2.86 ft-lb/in ²	ISO 180/1A
Izod Impact, Unnotched (ISO)	15.0 kJ/m ²	7.14 ft-lb/in ²	ISO 180/1U

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+17 ohm-cm	>= 1.00e+17 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	IEC 60093
Dielectric Constant	5.2 @Frequency 10000 Hz	5.2 @Frequency 10000 Hz	IEC 60250
Dielectric Strength	25.0 kV/mm	635 kV/in	IEC 60243-1
Dissipation Factor	0.0010 @Frequency 10000 Hz	0.0010 @Frequency 10000 Hz	IEC 60250
Comparative Tracking Index	175 V	175 V	IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear	19.0 µm/m-°C @Temperature 20.0 °C	10.6 µin/in-°F @Temperature 68.0 °F	ISO 11359-2
CTE, linear, Transverse to Flow	24.0 µm/m-°C @Temperature 20.0 °C	13.3 µin/in-°F @Temperature 68.0 °F	ISO 11359-2
Melting Point	280 °C	536 °F	ISO 11357-1,2,3
Deflection Temperature at 1.8 MPa (264 psi)	270 °C	518 °F	ISO 75-1, -2
Glass Transition Temp, Tg	90.0 °C	194 °F	ISO 11357-1,-2,-3

Processing Properties	Metric	English	Comments
Melt Temperature	310 - 340 °C	590 - 644 °F	
Mold Temperature	135 - 160 °C	275 - 320 °F	
Drying Temperature	135 °C	275 °F	
Dry Time	3 - 4 hour	3 - 4 hour	

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.