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## FORTRON<sup>®</sup> CES51 N

## Polyphenylene sulfide

Fortron CES51 N is a 20% glass reinforced PPS resin in black. It offers excellent physical properties and good adhesion to metal with nano molding technology treatment.

Product information Resin Identification Part Marking Code	PPS-GF20 >PPS-GF20<		ISO 1043 ISO 11469
Rheological properties			
Moulding shrinkage, parallel	0.2		ISO 294-4, 2577
Moulding shrinkage, normal	0.4	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile modulus	7200	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	-	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5		ISO 527-1/-2
Flexural modulus		MPa	ISO 178
Flexural strength		MPa kJ/m²	ISO 178 ISO 179/1eU
Charpy impact strength, 23°C Charpy notched impact strength, 23°C		kJ/m <sup>2</sup>	ISO 179/1eO ISO 179/1eA
Poisson's ratio	0.35 <sup>[C]</sup>	KU/III	130 173/TEA
[C]: Calculated	0.00		
Thermal properties			
Temperature of deflection under load, 1.8 MPa	240	°C	ISO 75-1/-2
Physical/Other properties			
Density	1420	kg/m³	ISO 1183
Injection			
Drying Recommended	yes	_	
Drying Temperature	130		
Drying Time, Dehumidified Dryer	2 - 4		
Processing Moisture Content Melt Temperature Optimum	≤0.02 330		
Min. melt temperature	330		
Max. melt temperature	340		
Screw tangential speed	0.2 - 0.3		
Mold Temperature Optimum	150	°C	
Min. mould temperature	140	°C	
Max. mould temperature	160		
Hold pressure range	30 - 70		
Back pressure	3	MPa	

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### Characteristics

Processing Special characteristics

#### Automotive

OEM VW Group Injection Moulding Flame retardant

ADDITIONAL INFORMATION No Spec, special part approval

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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. Contained in this publication is accurate; however, we do not assume any liability of the dusers 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 industion for handling each material th

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