



### Polyphenylene sulfide

FORTRON® CES 6145 LCG is a glass fiber and mineral reinforced grade with low Chlorine content. It offers excellent physical properties and good flowability for consumer electronics applications.

Product information			
Resin Identification	PPS-(GF+MD)4		ISO 1043
Part Marking Code	5 >PPS-(GF+MD)4	5<	ISO 11469
Rheological properties			
Moulding shrinkage, parallel Moulding shrinkage, normal	0.3 0.6		ISO 294-4, 2577 ISO 294-4, 2577
Typical mechanical properties			
Tensile modulus Tensile stress at break, 5mm/min Tensile strain at break, 5mm/min Flexural modulus Flexural strength Charpy impact strength, 23°C Poisson's ratio	1.8 16000 280	MPa %	ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 178 ISO 178 ISO 179/1eU
Thermal properties			
Melting temperature, 10°C/min Glass transition temperature, 10°C/min Temperature of deflection under load, 1.8 MPa	280 90 273	°C	ISO 11357-1/-3 ISO 11357-1/-3 ISO 75-1/-2
Flammability			
Burning Behav. at thickness h Thickness tested		class mm	IEC 60695-11-10 IEC 60695-11-10
Electrical properties			
Relative permittivity, printed circuits and boards, 2.5 GHz	4.1		IEC 61189-2-721
Dissipation factor, printed circuits and boards, 2.5 GHz	40	E-4	IEC 61189-2-721
Physical/Other properties Water absorption, 2mm	0.02	%	Sim. to ISO 62
Density		kg/m <sup>3</sup>	ISO 1183
Injection			
Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content Melt Temperature Optimum Min. melt temperature	yes 130 2 - 4 ≤0.02 330 310	h % °C	

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340	°C
0.2 - 0.3	m/s
150	°C
140	°C
160	°C
30 - 70	MPa
3	MPa
	0.2 - 0.3 150 140 160 30 - 70

#### Characteristics

Processing Injection Moulding

Delivery form Pellets

Special characteristics Flame retardant, Heat stabilised or stable to heat, Hydrolysis resistant, High Flow,

Chemical resistant

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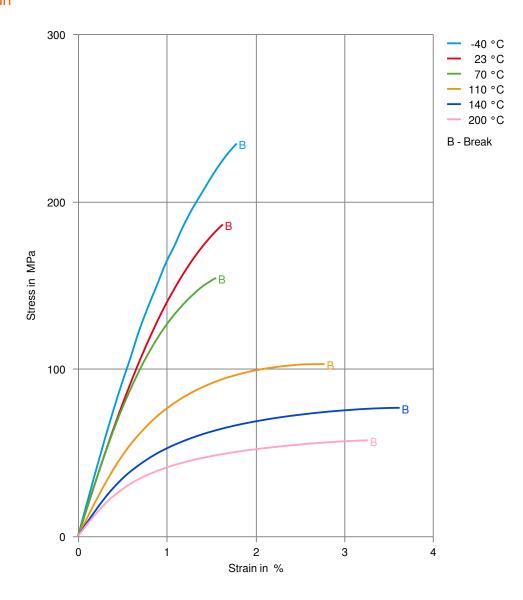
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#### Stress-strain



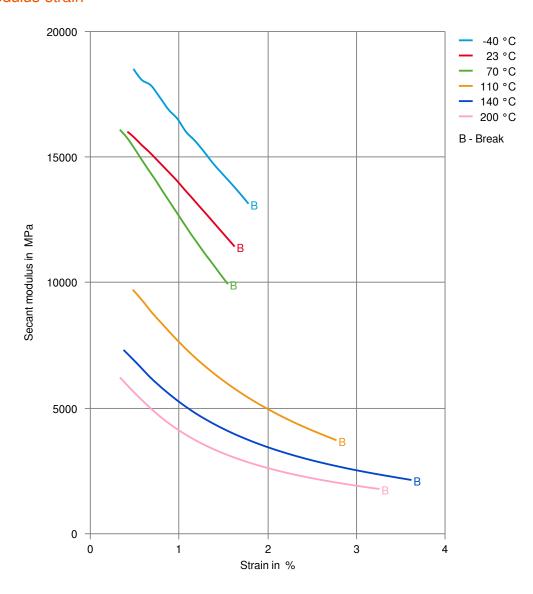
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## Polyphenylene sulfide

### Secant modulus-strain



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## FORTRON® CES 6145 LCG

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#### Chemical Media Resistance

#### Standard Fuels

- ✓ ISO 1817 Liquid 1 E5, 60°C
- ✓ ISO 1817 Liquid 2 M15E4, 60°C
- ✓ ISO 1817 Liquid 3 M3E7, 60°C
- ✓ ISO 1817 Liquid 4 M15, 60°C
- ✓ Standard fuel without alcohol (pref. ISO 1817 Liquid C), 23°C
- ✓ Standard fuel with alcohol (pref. ISO 1817 Liquid 4), 23°C

#### Symbols used:

possibly resistant

Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).

x not recommended - see explanation

Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).

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