

Product Texts

FORTRON ICE 504L is a 40% glass fiber reinforced polyphenylene sulfide, 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.

Flammability @1.6mm nom. V-0 -
 thickn.
 Flammability at thickness h (0.38 V-0 -
 mm)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.3	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.6	%	ISO 294-4, 2577
^[C] Spec. heat capacity of melt	1500	J/(kg K)	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	15100	MPa	ISO 527
^[C] Stress at break	202	MPa	ISO 527
^[C] Strain at break	1.9	%	ISO 527
^[C] Charpy impact strength, +23°C	53	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	53	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	10	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	10	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	280	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	90	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	270	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 8.00 MPa	215	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	26	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	42	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
^[C] Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.4	mm	-
^[C] Oxygen index	47	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 1MHz	4.1	-	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	20	E-4	IEC 62631-2-1
^[C] Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	>1E15	Ohm	IEC 62631-3-2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	0.02	%	Sim. to ISO 62
^[C] Density	1650	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Delivery form

Pellets

Additives

Release agent

Certifications

Drinking water contact

Regional Availability

North America, Europe, Asia Pacific, South and Central America