

Product Texts

Riteflex 677 is a thermoplastic polyester elastomer with nominal hardness of 77 shore D and high modulus.

Flammability at thickness h (1.5 HB mm)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	2.0	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.9	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	750	MPa	ISO 527
^[C] Yield stress	33	MPa	ISO 527
^[C] Yield strain	18	%	ISO 527
^[C] Nominal strain at break	>50	%	ISO 527
^[C] Charpy impact strength, +23°C	71	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	4.5	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	9.4	kJ/m ²	ISO 179/1eA
^[C] Tensile notched impact strength, +23°C	9.3	kJ/m ²	ISO 8256/1
^[C] Stress at 10% elongation	36	MPa	ISO 527
^[C] Tear strength	250	kN/m	ISO 34-1
^[C] Shore D hardness	75	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	218	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	51	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	105	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	140	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 1MHz	3.3	-	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	400	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] Electric strength	16	kV/mm	IEC 60243-1

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	0.4	%	Sim. to ISO 62
^[C] Density	1270	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	121	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.05	%	-
Melt temperature	235 - 255	°C	-

Mold temperature

40 - 95

°C

-

Characteristics**Processing**

Injection Molding

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information**Injection molding**

To avoid hydrolytic degradation during processing, RITEFLEX resins have to be dried to a moisture level equal to or less than 0.05%. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-40°F (-44°C) at 250°F for 3-4 hours.

Rear Temperature 450-470(230-240) deg F (deg C)

Center Temperature 460-480(235-250) deg F (deg C)

Front Temperature 470-490(240-255) deg F (deg C)

Nozzle Temperature 480-490(250-255) deg F (deg C)

Melt Temperature 460-490(235-255) deg F (deg C)

Mold Temperature 100-200(40-95) deg F (deg C)

Back Pressure 0-50 psi

Screw Speed Medium

Injection Speed Fast

Injection speed, injection pressure and holding pressure have to be optimized to the individual article geometry. To avoid material degradation during processing low back pressure and minimum screw speed have to be used. Overheating of the material has to be avoided, in particular for flame retardant grades. Up to 25% clean and dry regrind may be used.