

Product Texts

Riteflex XFR 655 is a thermoplastic polyester elastomer featuring a halogen-free flame retardant system and is UL certified to be V-0 at 1.5 mm in all colors. It has shore D hardness of 55 and an excellent balance of mechanical properties, flame retardant efficiency and processability.

Flammability at thickness h (1.5 V-0 mm)

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|---|-------|------------------------|---------------|
| ISO Data | | | |
| ^[C] Melt volume-flow rate, MVR | 20 | cm ³ /10min | ISO 1133 |
| Temperature | 250 | °C | - |
| Load | 2.16 | kg | - |

[C]: CAMPUS

| Mechanical properties | Value | Unit | Test Standard |
|--|-------|-------------------|---------------|
| ISO Data | | | |
| ^[C] Tensile Modulus | 360 | MPa | ISO 527 |
| ^[C] Stress at 50% strain | 14 | MPa | ISO 527 |
| ^[C] Strain at break | >50 | % | ISO 527 |
| ^[C] Charpy notched impact strength, +23°C | 13 | kJ/m ² | ISO 179/1eA |
| ^[C] Tear strength | 55 | kN/m | ISO 34-1 |
| ^[C] Shore D hardness | 55 | - | ISO 7619-1 |

[C]: CAMPUS

| Thermal properties | Value | Unit | Test Standard |
|--|-------|-------|-----------------|
| ISO Data | | | |
| ^[C] Melting temperature, 10°C/min | 200 | °C | ISO 11357-1/-3 |
| ^[C] Burning Behav. at thickness h | V-0 | class | IEC 60695-11-10 |
| Thickness tested | 1.5 | mm | - |
| ^[C] Oxygen index | 37 | % | ISO 4589-1/-2 |

[C]: CAMPUS

| Electrical properties | Value | Unit | Test Standard |
|----------------------------------|-------|-------|---------------|
| ISO Data | | | |
| ^[C] Electric strength | 15 | kV/mm | IEC 60243-1 |

[C]: CAMPUS

| Other properties | Value | Unit | Test Standard |
|------------------------|-------|-------------------|---------------|
| ^[C] Density | 1230 | kg/m ³ | ISO 1183 |

[C]: CAMPUS

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|-----------|------|---------------|
| Pre-drying - Temperature | 121 | °C | - |
| Pre-drying - Time | 4 | h | - |
| Processing humidity | ≤0.05 | % | - |
| Melt temperature | 220 - 235 | °C | - |
| Mold temperature | 20 - 55 | °C | - |

Characteristics**Processing**

Injection Molding, Profile Extrusion, Other Extrusion

Special Characteristics

Flame retardant, Halogen-free

Delivery form

Pellets

Regional Availability

North America, Europe

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 <-30°F (-34°C) at 225°F (121°C) for 4 hours.

Rear Temperature 390-420(200-215) deg F (deg C)

Center Temperature 420-450(215-230) deg F (deg C)

Front Temperature 420-460(215-235) deg F (deg C)

Nozzle Temperature 420-460(215-235) deg F (deg C)

Melt Temperature 430-460(220-235) deg F (deg C)

Mold Temperature 75-125(20-55) 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.