

RITEFLEX® XFR 655 - TPC

Description

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.

Physical properties	Value	Unit	Test Standard
Density	1230	kg/m ³	ISO 1183
Melt flow rate, MFR	8.7	g/10min	ISO 1133
MFR temperature	250	°C	ISO 1133
MFR load	2.16	kg	ISO 1133
Melt volume rate, MVR	20	cm ³ /10min	ISO 1133
MVR temperature	250	°C	ISO 1133
MVR load	2.16	kg	ISO 1133

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	360	MPa	ISO 527-2/1A
Tensile nominal strain at break, 50mm/min	>50	%	ISO 527-2/1A
Tensile stress at 50% strain, 50mm/min	14	MPa	ISO 527-2/1A
Tensile stress at break, 50mm/min	16	MPa	ISO 527-2/1A
Tensile strain at break, 50mm/min	250	%	ISO 527-2/1A
Charpy notched impact strength, 23°C	13	kJ/m ²	ISO 179/1eA

Mechanical properties (TPE)	Value	Unit	Test Standard
Shore D hardness, 15s	55	-	ISO 868
Tear strength, Die C/parallel	55	kN/m	ISO 34-1

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	200	°C	ISO 11357-1/-3
Limiting oxygen index (LOI)	37	%	ISO 4589-1/-2
Flammability at thickness h	V-0	class	UL 94
thickness tested (h)	1.50	mm	UL 94

Electrical properties	Value	Unit	Test Standard
Electric strength	15	kV/mm	IEC 60243-1
Comparative tracking index	PLC 0	-	IEC 60112

Other text information

Pre-drying

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 (-40°C) at 225°F (107°C) for 4 hours.

Injection molding

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

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flame retardant grades. Up to 25% clean and dry regrind may be used.

Characteristics

Special Characteristics

Flame retardant

Delivery Form

Pellets

Product Categories

Unfilled

Additives

Flame retarding agent

Processing

Injection molding, Other extrusion