

**TYPICAL PROPERTIES FOR ETHYLENE-
CHLOROTRIFLUOROETHYLENE (ECTFE)**

ASTM	Property	ECTFE Grade
MECHANICAL		
D3275	Melt flow rate (g/10 min)	1.5-3
D792	Specific gravity	1.67-1.70
D570	Water absorption , 24 h (%)	<0.1
D638	Tensile strength , 23°C (psi)	7,800
D638	Elongation , 23°C (%)	200-250
D695	Compressive strength , 23°C at 5% strain (psi)	–
D256	Impact strength , 23°C, Notched Izod (J/m)	No break
D790	Flexural modulus , 23°C (psi)	245,000
D2240	Durometer hardness , Shore D (D)	75
D1894	Coefficient of friction	0.19
D621	Deformation under load , 23°C, 1000 psi, 24 h (%)	–
THERMAL		
D3418	Melting point (°C)	240
D648	Deflection temperature (66 psi) (°C)	90
D2863	Oxygen index (%)	60
	Maximum service temperature (°C)	149
	Thermal conductivity (W/m-°C)	0.015
	Flammability	V-O
ELECTRICAL		
D257	Surface resistivity (ohm-sq)	–
D257	Volume resistivity (ohm-cm)	10 ¹⁶
D149	Dielectric strength (kV/mil) (1 mil film)	2,000
D1531	Dielectric constant , 21°C, 103 Hz	2.5
D1531	Dissipation factor , 21°C, 103 Hz	0.003
D495	Arc resistance (s)	–

**TYPICAL PROPERTIES FOR ETHYLENE-
CHLOROTRIFLUOROETHYLENE (ECTFE)**

ISO	Property	ECTFE Grade
MECHANICAL		
ISO12086	Melt flow rate (g/10 min)	1.5-3
ISO1183	Specific gravity	1.67-1.70
ISO62	Water absorption , 24 h (%)	<0.1
ISO527	Tensile strength , 23°C (MPa)	42-48
ISO527	Elongation , 23°C (%)	200-250
ISO604	Compressive strength , 23°C at 5% strain (bar)	–
ISO180	Notched Izod impact strength , 23°C (J/m)	No break
ISO178	Flexural modulus , 23°C (MPa)	1,700
ISO868	Durometer hardness , Shore D (D)	75
ISO8295	Coefficient of friction	0.19
ASTM	Deformation under load , 23°C, 69 psi, 24 h (%)	–
D621		
THERMAL		
ISO3146	Melting point (°C)	240
ISO75	Deflection temperature (0.45 MPa) (°C)	90
ISO4589	Oxygen index (%)	60
	Maximum service temperature (°C)	149
	Thermal conductivity (W/m-°C)	0.015
	Flammability	V-O
ELECTRICAL		
IEC93	Surface resistivity (ohm-sq)	10 ¹⁶
IEC93	Volume resistivity (ohm-cm)	10 ¹⁵
IEC243	Dielectric strength (kV/mm)	50-80
IEC250	Dielectric constant , 21°C, 103 Hz	2.5
IEC	Dissipation factor , 21°C, 103 Hz	0.003
60250		
ASTM	Arc resistance (s)	–
D495		