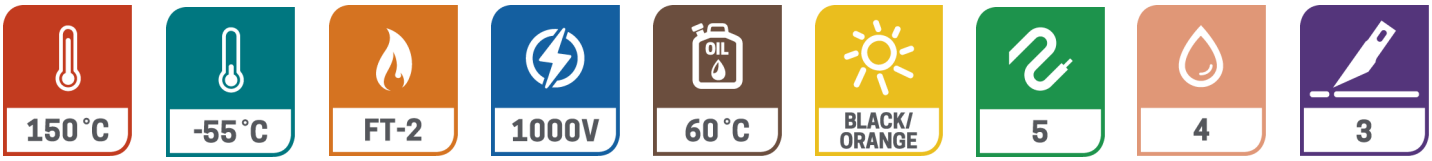
EXRAD ERGO FLEX™
Thin Wall
High Voltage Cable

1,000VAC / 1,500VDC, 150°C, ISO-19642-5, Class D

- Revolutionary EXRAD ERGO FLEX™ Irradiation Crosslinked Polyolefin (XLPO)
- Meets or Exceeds all ISO-19642-5 Requirements, Including all Fluids
- Ultimate Flexibility, Thin, Fluid Resistant and Tough
- Performs at Higher Temperatures for Longer Periods of Time
- Excellent Compression Set Properties for Connector Sealing: 92% Retention
- Designed to Improve Ergonomics and Reduce Operator Movement / Fatigue



Product Number	Bare Copper Conductors	Conductor Diameter mm / nom	Insulation Thickness mm / nom	Finished Diameter mm / nom	Static Bend Radius mm / min	Finished Weight kg/KM nom	Max Conductor Resistance 20°C MΩ per M
EXRAD-EF150-3	3.0mm² (44/.29)	2.2	0.53	3.20	8	49	6.15
EXRAD-EF150-5	5.0mm² (70/.29)	2.7	0.66	4.05	10	56	3.94
EXRAD-EF150-6	6.0mm² (84/.30)	2.9	0.61	4.15	11	61	3.14
EXRAD-EF150-8	8.0mm² (238/.20)	3.6	0.61	4.80	12	77	2.38
EXRAD-EF150-12	12mm² (175/.29)	4.7	0.71	6.15	18	126	1.52
EXRAD-EF150-16	16mm² (224/.30)	5.6	0.61	6.80	20	193	1.16
EXRAD-EF150-20	20mm² (273/.29)	6.2	0.61	7.40	24	201	0.955
EXRAD-EF150-25	25mm² (364/.29)	6.8	0.72	8.30	28	243	0.743
EXRAD-EF150-35	35mm² (1083/.20)	7.9	1.00	9.90	30	343	0.527
EXRAD-EF150-50	50mm² (1615/.20)	9.9	0.89	11.70	33	487	0.368
EXRAD-EF150-70	70mm² (2128/.20)	11.9	1.00	14.00	35	699	0.259
EXRAD-EF150-95	95mm² (2926/.20)	13.97	1.00	16.00	40	1,170	0.196

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ISO 19642 Section	Description	Requirement	Typical Results (35mm² Sample)	
5.1.1	Outside Cable Diameter	10.4mm max.	9.91mm	Pass
5.1.2	Insulation Thickness	0.64mm min.	0.99mm	Pass
5.1.3	Conductor Diameter	9.0mm max.	7.87mm	Pass
5.2.1	Conductor Resistance	0.527 mΩ/m max.	0.450 mΩ/m	Pass
5.2.2	Withstand Voltage	10kV for 5min	No dielectric breakdown	Pass
5.2.4	Insulation Faults	Sparktest @ 8.0kV	No breakdown	Pass
5.2.5	Insulation Volume Resistivity	10^{12} Ω /mm min.	1.25 x 10^{15} Ω /mm	Pass
5.3.5	Flexibility Test	Customer-Defined	34.9 N	NA
5.4.2	Long-Term Heat Aging	150°C, 3000 hrs, 3kV, no breakdown	No cracks, No breakdown	Pass
5.4.3	Short-Term Heat Aging	175°C, 240hrs, 3kV, no breakdown	No cracks, No breakdown	Pass
5.4.4	Thermal Overload	200°C, 6 hrs, 5Kv	No cracks, No breakdown	Pass
5.4.5	Pressure at High Temperature	Under load @150°C, 5kV 5min, no breakdown	No cracks, No breakdown 92% retention	Pass
5.4.6	Shrinkage by heat	2mm max. @ 150°C	0.0 mm	Pass
5.4.7	Low Temperature Winding	4 hrs @ -40°C, 3kV, no breakdown	No cracks, No breakdown	Pass
5.4.8	Cold Impact	16 hrs @ -15°C, 1kV, no breakdown	No cracks, No breakdown	Pass
5.4.9	Temperature and Humidity Cycling	40 x 8 hour cycles -40°C to 150°C, relative humidity 80 -100%, 3kV	No cracks, No breakdown	Pass
5.4.10	Resistance to hot water	35 days in 85C water, IR not less than 10^{12} Ω/mm	4.46 x 10^{14} Ω/mm, no breakdown	Pass
5.4.11	Resistance to liquid chemicals	Groups 1 and 2, no breakdown.	All fluids: No crack/damage/breakdown	Pass
5.4.14	Ozone Resistance	65°C, 192 hours, Ozone (1+/- 0.05) x 10^{-6}	No cracks	Pass
5.4.15	Resistance to Flame Propagation	Must extinguish within 30 sec. max. and a min of 50mm unburned	4.0 sec.	Pass

AUG-20
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Manufacturing Locations:
Colchester, Vermont
El Paso, Texas
www.champcable.com