



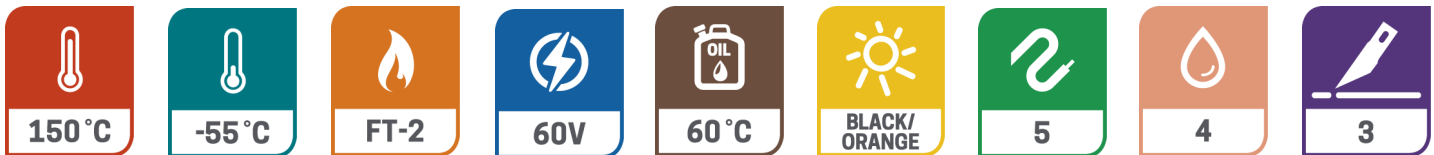
EXRAD® ERGOFLEX

Thin Wall

Low Voltage Cable

30VAC/60VDC, 150°C, ISO-19642-3, Class D, FLR13X

- Revolutionary EXRAD® ERGOFLEX Irradiation Crosslinked Polyolefin (XLPO)
- Meets or Exceeds all ISO-19642-3 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: 90% Retention
- Designed to Improve Ergonomics and Reduce Operator Movement / Fatigue



Product Number	Bare Copper Conductor Standard Strand Flex-Strand (F)	Conductor Diameter mm / nom	Insulation Thickness mm / nom	Finished Diameter mm / nom	Static Bend Radius mm / min	Finished Weight kg/KM nom	Conductor Resistance @ 20°C MΩ/M (max)
EXRAD-EF60V-TW-6	6.0mm ² (84/.30)	2.9	0.61	4.15	13	61	3.14
EXRAD-EF60V-TW-6F	6.0mm ² (196/.20)	2.9	0.61	4.15	13	61	3.14
EXRAD-EF60V-TW-12	12mm ² (175/.29)	4.7	0.71	6.15	19	126	1.52
EXRAD-EF60V-TW-12F	12mm ² (380/.20)	4.7	0.71	6.15	19	126	1.52
EXRAD-EF60V-TW-16	16mm ² (224/.30)	5.6	0.61	6.80	20	193	1.16
EXRAD-EF60V-TW-16F	16mm ² (511/.21)	5.6	0.61	6.80	20	193	1.16
EXRAD-EF60V-TW-25	25mm ² (364/.29)	6.8	0.72	8.30	25	243	0.743
EXRAD-EF60V-TW-25F	25mm ² (798/.20)	6.8	0.72	8.30	25	243	0.743
EXRAD-EF60V-TW-35	35mm ² (511/.28)	7.9	1.00	9.90	30	343	0.527
EXRAD-EF60V-TW-35F	35mm ² (1083/.20)	7.9	1.00	9.90	30	343	0.527
EXRAD-EF60V-TW-50	50mm ² (798/.28)	9.9	0.89	11.70	35	487	0.368
EXRAD-EF60V-TW-50F	50mm ² (1615/.20)	9.9	0.89	11.70	35	487	0.368
EXRAD-EF60V-TW-70	70mm ² (1140/.28)	11.9	1.00	14.00	42	699	0.259
EXRAD-EF60V-TW-70F	70mm ² (2128/.20)	11.9	1.00	14.00	42	699	0.259
EXRAD-EF60V-TW-95	95mm ² (1938/.25)	13.97	1.00	16.00	48	1,170	0.196
EXRAD-EF60V-TW-95F	95mm ² (2926/.20)	13.97	1.00	16.00	48	1,170	0.196





EXRAD[®] ERGO FLEX

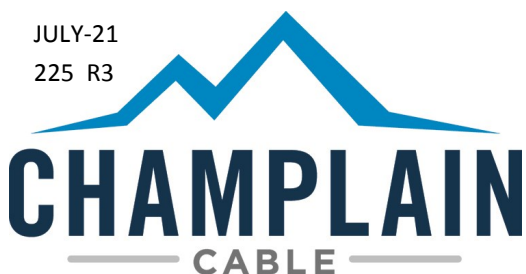
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ISO 19642 Section	Description	Requirement	Typical Results (35mm ² Sample)	
5.1.1	Outside Cable Diameter	10.4mm max.	9.91mm	Pass
5.1.2	Insulation Thickness	0.64mm min.	0.99mm	Pass
5.1.3	Conductor Diameter	9.0mm max.	7.87mm	Pass
5.2.1	Conductor Resistance	0.527 mΩ/m max.	0.450 mΩ/m	Pass
5.2.2	Withstand Voltage	1kV for 30min	No dielectric breakdown	Pass
5.2.4	Insulation Faults	Sparktest @ 3.0kV	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, 1kV for 60 sec, 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

Approvals: GMW 15626; FCA/Stellantis MS90034-2 150C XLPO

We cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. We accept no responsibility for results obtained by the application of this information or the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product combination for their own purpose. Unless otherwise agreed in writing, we sell the products without warranty, and buyers and users assume all responsibility and liability for loss and damage arising from the handling and use of our products whether used alone or in combination with other products



Manufacturing Locations:
Colchester, Vermont
El Paso, Texas
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