

## EXRAD ERGO FLEX™ Thick 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
- Designed to Improve Ergonomics and Reduce Operator Movement / Fatigue











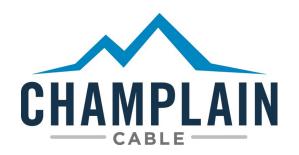








Product Number	Std Conductors  Bare Copper	Nom Conductor		Nom. Insulation		Nom Finished		Min Static		Finished	Conductor
		Diameter		Thickness		Diameter		Bend Radius		Weight	Resistance mohms/m
		mm	in	mm	in	mm	in	mm	in	Kg/KM	at 20°C
EXRAD-EF150K-6	6.0mm² (84/.30)	2.92	.115	0.94	.037	4.80	.189	11	0.4	68	3.14
EXRAD-EF150K-8	8mm² (238/.20)	3.61	.142	0.93	.037	5.45	.244	12	0.5	112	2.38
EXRAD-EF150K-12	12mm² (175/.29)	4.72	.186	1.14	.045	7.00	.276	20	8.0	134	1.52
EXRAD-EF150K-16	16mm² (224/.30)	5.21	.205	1.24	.049	8.00	.314	20	8.0	208	1.16
EXRAD-EF150K-20	20mm² (273/.30)	6.20	.244	1.24	.049	8.60	.339	21	8.0	216	0.96
EXRAD-EF150K-25	25mm² (364/.29)	6.86	.270	1.52	.060	9.90	.390	27	1.0	261	0.74
EXRAD-EF150K-35	35mm² (1083/.20)	7.87	.310	1.37	.054	10.60	.417	32	1.3	356	0.53
EXRAD-EF150K-50	50mm² (1615/.20)	9.91	.390	1.30	.051	12.50	.492	35	1.4	509	0.36
EXRAD-EF150K-70	70mm² (1140/.28)	11.56	.455	1.57	.062	14.70	.579	44	1.7	711	0.26
EXRAD-EF150K-95	95mm² (1938/.25)	13.51	.532	1.75	.069	17.00	.669	51	2.0	968	0.19
EXRAD-EF150K-120	120mm² (2442/.25)	15.24	.600	1.73	.068	18.70	.736	56	2.2	1211	0.15





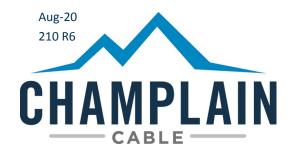




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ISO 19642 Section	Description	Requirement	Typical Results (35mm <sup>2</sup> Sample)			
5.1.1	Outside Cable Diameter	11.6mm max.	10.59mm	Pass		
5.1.2	Insulation Thickness	1.04mm min.	1.32mm	Pass		
5.1.3	Conductor Diameter	9.0mm max.	7.87mm	Pass		
5.2.1	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	$10^{12}\Omega$ /mm min.	6.08 x 10 <sup>14</sup> Ω /mm	Pass		
5.3.5	Flexibility Test	Customer-Defined	39.4 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	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	$40 \times 8$ hour cycles - $40^{\circ}$ C to $150^{\circ}$ C, relative humidity $80$ - $100^{\circ}$ , $3kV$	No cracks, No breakdown	Pass		
5.4.10	Resistance to hot water	35 days in 85C water, IR not less than $10^{12}\Omega/$ mm	$2.76 \times 10^{14} \Omega$ /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	9.4 sec.	Pass		

We cannot anticipate all conditions under which this information and our 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
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