



180B Powertrain

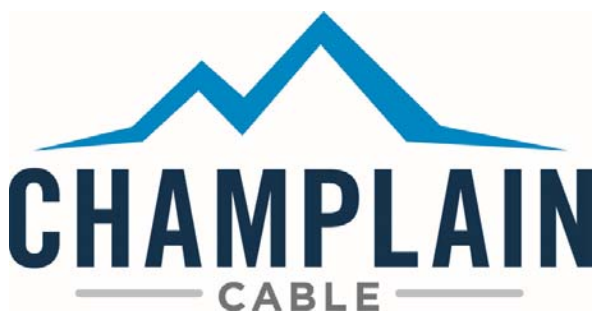
ISO 6722-1 Class D-150°C-Thin Wall-60V

EXRAD 180B is a high performance fluid blocking wire built to handle the high temperature fluid environments in engines and transmissions. EXRAD 180B is extremely fluid resistant at temperatures up to 150°C and meets the requirements of ISO 6722-1 150°C thin wall. It is an irradiation cross-linked fluoropolymer with impressive properties at a lower price. EXRAD 180B has silicone blocked conductor to prevent hot oils, moisture and other fluids to wick through the wiring system.

EXRAD180B processes very well on automated high speed cut and strip equipment. The end result is an automotive wire ideally suited to applications where heat protection, long life and less expensive wiring harnesses are required.



Product Number	Standard Conductors Tinned Copper	Nom. Dia of Conductor mm	Insulation Thickness mm	Nom. OD mm	Finished Weight (kg/100m)
EXRAD-180BW-0.50	0.50mm ² 19/.18mm	0.89	0.28	1.5 +/- .1	0.8
EXRAD-180BW -0.75	0.75mm ² 19/.22mm	1.08	0.30	1.8 +/- .1	1.1
EXRAD-180BW -1.00	1.00mm ² 19/.25mm	1.22	0.30	2.0 +/- .1	1.3
EXRAD-180BW -1.50	1.50mm ² 19/.32mm	1.57	0.30	2.3 +/- .1	1.8

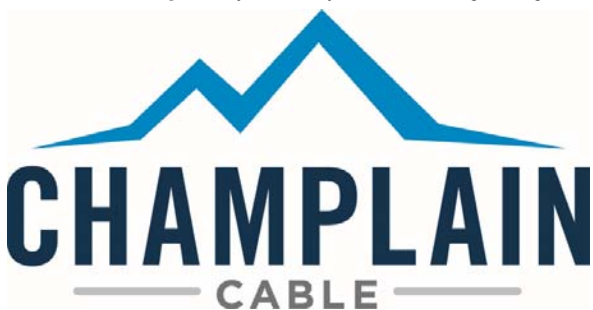




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		ISO 6722-1 Class E Thin Wall	Exrad 180	
		Requirement	Typical Results (2.5mm ² Sample)	Results
5.7	Insulation Volume Resistivity	10 ⁹ Ω/mm min.	4.1 x 10 ¹³ Ω/mm	Pass
5.8	Pressure at High Temperature	1.1N@175°C no dielectric breakdown	no breakdown	Pass
5.9	Strip Force / Adhesion	Per customer agreement	49N	NA
5.10	Low Temperature Winding	3 tns 2.5kg - 40°C no dielectric breakdown	no dielectric breakdown, no cracking	Pass
5.11	Impact	100gm @-40°C no breakdown	no breakdown,	Pass
5.12.4.1	Sandpaper Abrasion	.5kg 250mm min.	790mm	Pass
5.12.4.2	Scrape Abrasion	Per Customer Agreement	2072	Pass
5.13	Long-Term Heat Aging	175°C 3000 hours	no breakdown, no cracks	Pass
5.15	Thermal Overload	225°C 6 hours	no breakdown, no cracks	Pass
5.16	Shrinkage by heat	2mm max. 150°C	no shrinkage,	Pass
5.17	Fluid Compatibility	Gasoline 15% max.	0%	Pass
		Diesel Fuel 15% max.	0%	Pass
		Engine Oil 15% max.	0%	Pass
		Ethanol 15% max.	0%	Pass
		Power Steering 30% max	0%	Pass
		Automatic Transmission 25% max	0%	Pass
		Engine Coolant 15% max	0%	Pass
		Battery Acid no breakdown	no breakdown,	Pass
5.19	Ozone Resistance	45°C 85% Relative Humidity, 70 hours, Ozone 50 +/- 5 pphm 1kV 1 min. (no breakdown)	no breakdown,	Pass
5.20	Resistance to hot water	not less than 10 ⁵ Ω-mm	1X 10 ¹¹ Ω-mm	Pass
5.21	Temperature and Humidity Cycling	40 - 8 hours cycles -40°C and 125°C 80 -100% relative humidity	no dielectric breakdown, no cracking	Pass
5.22	Resistance to Flame	70 sec. max. 50mm unburned	8 sec. after burn	Pass

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

www.champcable.com