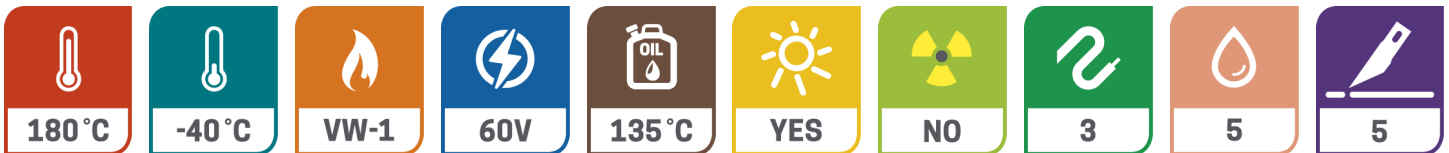




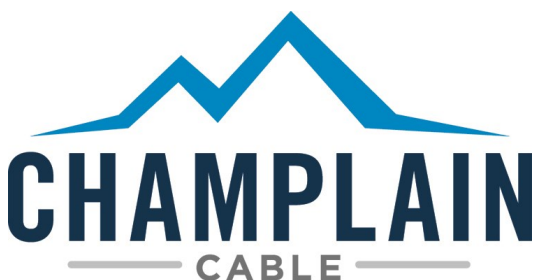
# 180UT Ultra-Thin Powertrain Wire

AWG, Ultra-Thin-Wall, 180°C, 60V

- Highly Engineered EXRAD 180 Irradiation Crosslinked Fluoroelastomer
- Withstands Thermal Excursions to 250°C for Short Periods
- Thinner than Standard SAE TXL for Tight Spaces and Ease of Routing
- Designed for the Most Demanding Environments
- Designed for a Long Life for Today's Longer Vehicle Warranties
- Highly Fluid Resistant. Performs well in Engine Oil and Transmission Fluid



Product Number	Standard Conductors Bare Copper	Nominal Conductor OD in. mm.	Nom. Insulation Thickness in. mm.	Nom. Finished OD in. mm.	Finished Weight (lbs/mft)	Ampacity (40°C in Free Air)
EXRAD-XUT-24XX	24 (7/32)	.024 .61	.012 .31	.046 1.17	2.42	6
EXRAD-XUT-22XX	22 (7/30)	.031 .79	.012 .31	.055 1.40	3.41	11
EXRAD-XUT-20XX	20 (7/28)	.038 .97	.012 .31	.062 1.57	4.91	15
EXRAD-XUT-18XX	18 (19/0092)	.047 1.19	.012 .31	.071 1.85	6.70	21
EXRAD-XUT-16XX	16 (19/29)	.057 1.45	.012 .31	.081 2.06	9.53	28
EXRAD-XUT-14XX	14 (19/27)	.071 1.81	.012 .31	.095 2.41	14.22	46
EXRAD-XUT-12XX	12 (65/30)	.086 2.16	.013 .33	.112 2.85	22.90	60
EXRAD-XUT-10XX	10 (105/30)	.112 2.84	.013 .33	.138 3.51	36.90	80



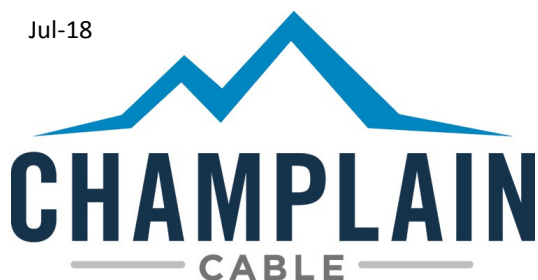


# 180UT Ultra-Thin Powertrain Wire

Property / Attribute			SAE J1128 TXL Req.	EXRAD 180UT 18 AWG Typical Performance
<b>Flex Life</b>				
Flex Test	Per Modified ISO 14572		NA	NA
<b>Dielectric Strength</b>				
Dielectric Test	Wet Dielectric after 5 hour soak		1 kV 1 min.	5 kV 30 min.
<b>Flame Resistance</b>				
Flame Test	Burn time after removal of gas burner		70 sec max.	1 sec
<b>Thermal Performance</b>				
Cold Bend	4 hours at temperature no cracks / breakdown		-40°C	-40°C
Temperature Rating	240 Hours @213°C heat aging		155°C	213°C
Temperature Rating	3000 Hours @180°C		125°C	180°C
<b>Mechanical Properties</b>				
Tensile	psi		1500 min.	3800
Elongation	%		150 min.	320
Abrasion	Sand Paper Resistance Length in.		10 min.	31
Abrasion	Scrape Cycles		None	1400
Pinch	Pounds		5.5 min.	26
<b>Hydrolysis Resistance</b>				
Hydrolysis Resistance	168 Hours @ 75°C saltwater immersion and 48 volts dc, no cracks, no dielectric failure		pass	pass
<b>Ozone Resistance</b>				
Ozone Test	192 Hours @ 65°C 100 pphm no cracks		Pass	Pass
<b>Fluids</b>				
Engine Oil	ASTM D471, IRM-902	115 +/-3°C	15% Max.	0%
Gasoline	ASTM D471 Ref. Fuel C	23 +/-5°C	15% Max.	0%
Brake Fluid	SAE-J-1703	50 +/-5°C	None	0%
Ethanol	85% Ethanol +15% ASTM D471, Ref. Fuel C	23 +/-5°C	15% Max.	0%
Diesel Fuel	ASTM D471, 90% IRM-903 + 10% p-xylene	23 +/-5°C	15% Max.	0%
Power Steering	ASTM D471, IRM-903	50 +/-3°C	30% Max.	0%
Auto Transmission	Citgo #33123 SAE-J311	50 +/-3°C	25% Max.	<2%
Methanol		23 +/-5°C	25% Max.	0%
Engine Coolant	50% Ethylene Glycol + 50% distilled Water	50 +/-3°C	15% Max.	0%
Battery Acid	H2SO4 Specific Gravity = 1.260 +/- .005	23 +/-5°C	5% Max.	<0%

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

Jul-18



**Manufacturing Locations:**  
Colchester, Vermont  
El Paso, Texas  
[www.champcable.com](http://www.champcable.com)