



# MILITARY

Inventing *the Future* of Wire and Cable



## EXRAD 150A MIL-Plus MIL 16878/16 Battery Cable

EXRAD 150A MIL-Plus is a high performance battery cable designed specifically for military vehicles. It meets both Mil 16878/16 and SAEJ1127 GXL requirements. As engine compartments grow smaller, operating temperatures get hotter and electronics proliferate under the hood, EXRAD 150A MIL-Plus battery cable fulfills these demands.

EXRAD 150A MIL-Plus battery cable has an irradiated cross-linked polyolefin insulation able to withstand temperatures of 240°C and higher. EXRAD 150A MIL-Plus can provide the solution to the complex demands of the current military environments. Thinner and lighter than other conventional battery cables, it is flexible enough for easy routing yet tough enough to withstand the roughest environments.

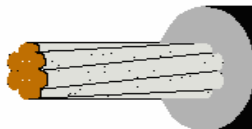
The end result is a military vehicle wire ideally suited to applications where a combination of flexibility, long life and performance is required.

### Benefits and Features

Thin, uses up to 40% less space  
Rated at 3000 Volts  
Flexible, Fluid Resistant  
High Abrasion Resistance  
-55°C to 150°C Temperature Range  
Superior Cut + Strip Processing  
RoHS Compliant

### Applications

Including but not limited to:  
Batteries                      Military Equipment  
Starters                        Military Vehicles  
Power Distribution  
Ground Wire



Champlain Cable Corporation

Part Number	Standard Conductors Tinned Copper	Nom. Dia of Conductor		Insulation Thickness		Nom. OD		Finished Weight (lbs/mft)	Ampacity
		in.	mm.	in.	mm.	in.	mm.		
150APLUSBMG	10 (37/27)	.111	2.82	.032	.81	.174	4.42	39.8	80
150APLUSBNM	8 (168/30)	.169	4.29	.037	.94	.242	6.14	65.4	106
150APLUSBPL	6 (133/27)	.210	5.33	.038	.97	.286	7.26	100.7	155
150APLUSBRL	4 (133/25)	.268	6.81	.041	1.04	.349	8.86	155.3	190
150APLUSBSP	2 (665/30)	.342	8.69	.039	.99	.419	10.64	243.1	255
150APLUSBTN	1 (259/25)	.378	9.60	.047	1.19	.471	11.18	301.2	293
150APLUSBUS	1/0 (1045/30)	.431	10.95	.045	1.14	.521	13.23	370.2	339
150APLUSBWT	2/0 (1330/30)	.475	12.07	.053	1.35	.580	14.73	472.1	390
150APLUSBYV	3/0 (1672/30)	.535	13.59	.064	1.63	.662	16.81	599.2	451
150APLUSBZW	4/0 (2109/30)	.600	15.24	.096	2.44	.795	20.19	791.6	529

\*Ampacity 150°C rated single-insulated conductor in free air at 40°C ambient air temperature.

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## EXRAD 150A

Property / Attribute			SAE J-1127 Req.	EXRAD 150A 6 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	Maximum time after burn		70 Sec	1 sec
<b>Thermal Performance</b>				
Cold Bend	4 hours at temperature no cracks / breakdown		-40°C	-55°C
Temperature Rating	240 Hours heat aging		155°C	180°C
Temperature Rating	3000 Hours		125°C	150°C
<b>Mechanical Properties</b>				
Tensile	Minimum psi		1500	2350
Elongation	Minimum %		150	300
Abrasion	Sand Paper Resistance Length in.		NA	18
Abrasion	Scrape Cycles		NA	NA
Pinch	Pounds		NA	NA
<b>Ozone Resistance</b>				
Ozone Test	192 Hours @ 650C 100 pphm no cracks		Pass	Pass
<b>Fluids</b>				
Engine Oil	ASTM D471, IRM-902	50 +/-3 °C	15% Max.	1.80%
Gasoline	ASTM D471 Ref. Fuel C	23 +/-5 °C	15% Max.	<1%
Brake Fluid	SAE-J-1703	50 +/-5 °C	None	<1.5%
Ethanol	85% Ethanol + 15% ASTM D471, Ref. Fuel C	23 +/-5 °C	15% Max.	<1%
Diesel Fuel	ASTM D471, 90% IRM-903 + 10% p-xylene	23 +/-5 °C	15% Max.	1.30%
Power Steering	ASTM D471, IRM-903	50 +/-3 °C	30% Max.	1.50%
Auto Transmission	Citgo #33123 SAE-J311	50 +/-3 °C	25% Max.	<1%
Methanol			25% Max.	<1%
Engine Coolant	50% Ethylene Glyco + 50% distilled Water	50 +/-3 °C	15% Max.	<1%
Battery Acid	H2SO4 Specific Gravity = 1.260 +/- .005	23 +/-5 °C	5% Max.	<1.4%

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