



**MILITARY**

Inventing *the Future* of Wire and Cable



## EXRAD 150A MIL-Plus Mil 16878/15 Powertrain

EXRAD 150A MIL-Plus is specifically designed for Military Vehicles. It meets both Mil 16878/15 and SAE J1128 TXL requirements. It is a high performance wire built to handle the increasingly brutal environment. It is an irradiation cross-linked polyolefin with impressive properties. It significantly reduces wire and harness routing headaches because it is more heat resistant, tougher and more fluid resistant than TXL. EXRAD 150A MIL-Plus is rated at 150°C, but it survives temperatures to 240°C and higher. It is safer in overload conditions because it will not melt.

EXRAD 150A MIL-Plus creates opportunities to eliminate unnecessary and expensive convolute tubing, tapes and heat shields that protect inferior wire systems. EXRAD 150A MIL-Plus has a life expectancy over 10,000 hours at 125°C.

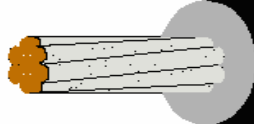
EXRAD 150A MIL-Plus processes very well on automated high speed cut and strip equipment. The end result is a Military Vehicle wire ideally suited to applications where heat protection, long life and less expensive wiring harnesses are required.

### Benefits and Features

M16878/15 Rated 150°C 1000 Volt  
Exceeds SAE J1128 TXL Requirements  
Cold temperature performance to -55°C  
Excellent Cut-Through Resistance  
Excellent Abrasion Resistance  
Very Fluid Resistant  
RoHS Compliant

### Applications

Including but not limited to:  
Military Equipment  
Military Vehicles  
Powertrain  
Under Hood  
Locations near exhaust manifolds or other high temperature areas



Champlain Cable Corporation

Part Number	Standard Conductors Tinned Copper	Nom. Dia of Conductor		Nom. Insulation Thickness		Nom. OD		Finished Weight (lbs/mft)	Ampacity
		in.	mm.	in.	mm.	in.	mm.		
150APLUSBDB	26 (7/34)	.019	.48	.017	.43	.052	1.32	1.96	3
150APLUSBEB	24 (7/32)	.024	.61	.017	.43	.057	1.45	2.62	7
150APLUSBFB	22 (7/30)	.030	.76	.017	.43	.063	1.60	3.50	11
150APLUSBGB	20 (7/28)	.038	.97	.017	.43	.071	1.80	4.99	15
150APLUSBHE	18 (19/.0092)	.045	1.14	.017	.43	.079	2.01	6.82	21
150APLUSBJE	16 (19/.0117)	.058	1.47	.017	.43	.092	2.34	10.43	28
150APLUSBKE	14 (19/.0147)	.072	1.83	.017	.43	.106	2.69	15.57	42
150APLUSBLJ	12 (65/30)	.093	2.36	.017	.43	.127	3.26	23.71	55

\* Ampacity 125°C rated single-insulated conductor in free air at 40°C ambient air temperature.

[www.champcable.com](http://www.champcable.com)



Champlain Cable Corporation  
175 Hercules Drive  
Colchester, Vermont 05446

P 800.451.5162  
F 802.654.4224  
sales@champcable.com



**MILITARY**

Inventing *the Future* of Wire and Cable



## EXRAD 150 A Mil-Plus

Property / Attribute		SAE J-1128 TXL Req.	EXRAD 150 A Mil-Plus 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	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 @180°C heat aging	155°C	180°C
Temperature Rating	3000 Hours @150°C	125°C	150°C
Temperature Rating	10000 Hours @125°C	NA	125°C
<b>Mechanical Properties</b>			
Tensile	Minimum psi	1500	3000
Elongation	Minimum %	150	375
Abrasion	Sand Paper Resistance Length in.	10	75
Abrasion	Scrape Cycles	None	NA
Pinch	Pounds	None	10.2
<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 50 +/-3 °C	15% Max.	1.8%
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	None	1.3%
Power Steering	ASTM D471, IRM-903 50 +/-3 °C	30% Max.	1.5%
Auto Transmission	Citgo #33123 SAE-J311 50 +/-3 °C	25% Max.	<1%
Methanol		15% Max.	<1%
Engine Coolant	50% Ethylene Glyco + 50% distilled Water 50 +/-3 °C	15% Max.	<1%
Battery Acid	H <sub>2</sub> SO <sub>4</sub> Specific Gravity = 1.260 +/- .005 23 +/-5 °C	5% Max.	<1.4%

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

[www.champcable.com](http://www.champcable.com)



Champlain Cable Corporation  
175 Hercules Drive  
Colchester, Vermont 05446

P 800.451.5162  
F 802.654.4224  
sales@champcable.com