



# MILITARY

Inventing *the Future* of Wire and Cable



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

RADXL 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. RADXL 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.

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

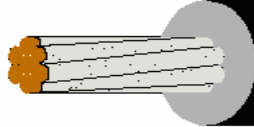
RADXL 150A MIL-Plus processes very well on automated high speed cut and strip equipment. The end result is a Military Vehicle wire ideally suited to applications where heat protection, long life and less expensive wiring harnesses are required.

### 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.

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## RADXL 150 A Mil-Plus

Property / Attribute		SAE J-1128 TXL Req.	RADXL150 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.
Gasoline	ASTM D471 Ref. Fuel C	23 +/-5 °C	15% Max.
Brake Fluid	SAE-J-1703	50 +/-5 °C	None
Ethanol	85% Ethanol + 15% ASTM D471, Ref. Fuel C	23 +/-5 °C	15% Max.
Diesel Fuel	ASTM D471, 90% IRM-903 + 10% p-xylene	23 +/-5 °C	None
Power Steering	ASTM D471, IRM-903	50 +/-3 °C	30% Max.
Auto Transmission	Citgo #33123 SAE-J311	50 +/-3 °C	25% Max.
Methanol			15% Max.
Engine Coolant	50% Ethylene Glyco + 50% distilled Water	50 +/-3 °C	15% Max.
Battery Acid	H <sub>2</sub> SO <sub>4</sub> Specific Gravity = 1.260 +/- .005	23 +/-5 °C	5% Max.

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