



# INDUSTRIAL

Inventing *the Future* of Wire and Cable



## Exar<sup>®</sup> 150

**UL 3271 / 3289 125°C 150°C 600V  
CSA AWM**

**Exar<sup>®</sup> 150** is the premium heat-defying cable in its class. Its irradiation cross-linked polymeric insulation possesses remarkable mechanical, flame resistance and electrical properties. It is compatible with many types of magnet wire and varnishes at bake temperatures up to 190°C Exar 150 processes extremely well on the latest high speed cut and strip machines. Processing costs are reduced by avoiding problems such as solder iron shrink-back, insulation creeping and poor abrasion resistance. This product has unusually high chemical resistance including many potting compounds, toners and solvents. Save money by avoiding costly scrap and rework.

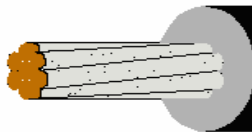
### Benefits and Features

UL/CSA AWM unrestricted 150°C – 600V  
Dual Ratings  
Rated for Class F  
Suitable for most Class H systems  
Cold temperature performance to -65°C  
Highly cut-through and abrasion resistant  
VW-1 Rated  
Easier stripping and processing  
RoHS Compliant

### Applications

Including but not limited to:

Electric Motors	Lighting Devices
Coil Winding	Appliances
Electrical Coils	Electronic Devices
Transformers	Heaters
Thermal Sensors	Thermal Protectors
Fax Machines	Printers
	Copiers
	Switchboard



Champlain Cable Corporation

Conductor Construction Tinned Copper	Nom. Dia of Conductor		Insulation Thickness		Nom. OD		Finished Weight (lbs/mft)	Ampacity
	in.	mm.	in.	mm.	in.	mm.		
22 (7/30)	.031	.79	.030	.76	.095	2.41	5.81	14
20 (7/28)	.038	.97	.030	.76	.103	2.61	7.85	18
18 (16/30)	.045	1.14	.030	.76	.105	2.67	9.52	25
16 (26/30)	.058	1.47	.030	.76	.122	3.09	13.3	31
14 (41/30)	.073	1.85	.030	.76	.136	3.45	19.0	46
12 (65/30)	.093	2.36	.030	.76	.150	3.81	27.1	60
10 (65/28)	.111	2.82	.030	.76	.172	4.37	40.5	80
8 (84/27)	.147	3.73	.045	1.14	.238	6.04	69.2	106
6 (84/25)	.183	4.65	.060	1.52	.305	7.75	111.5	155
4 (133/25)	.263	6.68	.060	1.52	.385	9.78	170.9	190
2 (259/26)	.323	8.20	.060	1.52	.445	11.30	254.5	255
1 (259/25)	.372	9.44	.060	1.52	.492	12.50	335.2	293
1/0 (259/24)	.424	10.77	.080	2.03	.588	14.99	421.0	339
2/0 (259/23)	.465	11.81	.080	2.03	.629	15.98	507.2	390
3/0 (259/22)	.520	13.21	.080	2.03	.684	17.37	627.2	451
4/0 (259/21)	.586	14.80	.080	2.03	.750	19.05	776.8	529

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

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



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PROPERTIES	EXAR® 150
<b>Approvals / Listings:</b>	
UL	STYLE 3271 3289
CSA	AWM 125°C 600V
<b>Physical: *</b>	
Temperature Rating	125 °C
Voltage Rating (Vrms)	600V
Flexibility - 7 days @ 180 °C	Passes
Cold Bend - 4h @ -65°C	Passes
Room Temperature UL Abrasion	2400 cycles
Shore "A" Hardness	95
Shore "D" Hardness	42
Bend Radius	3 X overall diameter
<b>Tensile Strength: *</b>	
Unaged	2000 PSI
Retention after 7 days @ 180 °C	Passes (100%)
<b>Elongation: *</b>	
Unaged	250%
Retention after 7 days @ 180 °C	95%
<b>Flame Test: *</b>	
UL VW-1	Passes
IEEE Std. 383-1974	Passes
<b>Chemical Resistance</b>	
Acetone	swell@23°C/24h 5-10%
Acid – H2SO4 S.G. 1.260 5%	swell@23°C** <1%
Engine Oil – ASTM D-471 IRM-902	swell@50°C** 1.80%
Benzene	swell@23°C/24h Not recommended
Epoxy	swell@23°C/24h <5%
Gasoline – ASTM D-471 Fuel C	swell@23°C** <1%
Methanol	swell@23°C** <1%
Toluene	swell@23°C/24h Not recommended
Xylene	swell@23°C/24h Not recommended
<b>Electrical: *</b>	
Dielectric Constant	3.1
Dielectric breakdown strength (Vrms)	6,000
<b>Oxygen Index:</b>	24
<b>Gamma Radiation Resistance – Total:</b>	
Integral dose (Cobalt 60 @ a rate of less than 1 megarad/hr.)	200 megarads

\* Properties are tested to UL 758 and UL 1581.

\*\* Percent swell SAE J-1128 TXL

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.

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