

## Exar<sup>®</sup> 150 UL 3271 125°C 600V CSA AWM

**Irradiation Cross-Linked Polymeric Insulation** 

**Exar**® **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.



Conductor Construction		. Dia of ductor		ulation ckness		om. OD	Finished Weight	Ampacity
Tinned	in.	mm.	in.	mm.	in.	mm.	(lbs/mft)	
Copper								
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 19/.0092"	.045	1.14	.030	.76	.106	2.69	9.62	25
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



Manufacturing Locations:
Colchester, Vermont
El Paso, TX
Leeds, Massachusetts



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PROPERTIES	EXAR <sup>®</sup> 150	
Approvals / Listings:		
UL		STYLE 3271
CSA		AWM 125°C 600V CL1251
Physical: *		
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
Tensile Strength: *		
Unaged		2000 PSI
Retention after 7 days @ 180 °C		Passes (100%)
Elongation: *		
Unaged		250%
Retention after 7 days @ 180 °C		95%
Flame Test: *		
UL VW-1		Passes
IEEE Std. 383-1974		Passes
Chemical Resistance		
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
Ероху	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
Electrical: *		
Dielectric Constant		3.1
Dielectric breakdown strength (Vrms)		6,000
Oxygen Index:		24
Gamma Radiation Resistance – Total:		
Integral dose (Cobalt 60 @ a rate of less than 1 megarad/hr.)  * Properties are tested to LIL 758 and LIL 1581		200 megarads

<sup>\*</sup> Properties are tested to UL 758 and UL 1581

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

## CHAMDIAIN CARIE

Colchester, Vermont www.champcable.com

## **Sales Offices:**



<sup>\*\*</sup> Percent swell SAE J-1128 TXL