



# 180

Irradiation Cross-Linked Polymeric Insulation

**UL 3740 180°C 600V**  
**CSA AWM 1 A/B 180°C 600V**  
**ROHS and CE Compliant**

Exar® 180 the first Class H, 600 volt, irradiated cross-linked wire. Exar 180 is lower cost, thin insulated hook-up wire. Why pay the higher cost of a fluoropolymer or braided silicone insulated wire? EXAR 180 can cost effectively replace Teflon's and other fluoropolymer insulations. Irradiation cross-linking assures this insulation will not melt or flow a higher temperatures. It has excellent mechanical strength, cut through resistance and outstanding chemical and solvent resistance. Unlike most Teflon insulated wire, EXAR 180 is easier to pint and pot.



Product Number	Standard Conductors Tinned Copper	Nom. Dia of Conductor		Insulation Thickness		Nom. OD		Finished Weight (lbs/mft)	Ampacity
		in.	mm.	in.	mm.	in.	mm.		
180-28/XX-B0	28 (7/36)	.015	.38	.016	.41	.049	1.25	1.40	1
180-26/XX-B0	26 (7/34)	.019	.48	.016	.41	.051	1.30	1.80	4
180-26/XX-E0	26 (19/38)	.020	.51	.016	.41	.053	1.35	1.87	4
180-24/XX-B0	24 (7/32)	.024	.61	.016	.41	.056	1.42	2.43	8
180-24/XX-E0	24 (19/36)	.024	.61	.016	.41	.057	1.45	2.48	8
180-22/XX-B0	22 (7/30)	.030	.76	.016	.41	.062	1.58	3.40	15
180-22/XX-E0	22 (19/34)	.031	.79	.016	.41	.063	1.60	3.51	15
180-20/XX-B0	20 (7/28)	.038	.97	.016	.41	.070	1.78	4.89	19
180-20/XX-E0	20 (19/32)	.038	.97	.016	.41	.071	1.80	5.10	19
180-18/XX-B0	18 (7.0152)	.045	1.14	.016	.41	.077	1.96	6.55	26
180-18/XX-D0	18 (19.0092)	.045	1.14	.016	.41	.077	1.96	6.45	26
180-16/XX-F0	16 (19.0117)	.058	1.47	.016	.41	.092	2.34	9.99	33
180-14/XX-H0	14 (41/30)	.071	1.85	.016	.41	.107	2.72	15.07	50
180-12/XX-J0	12 (65/30)	.089	2.26	.016	.41	.121	3.07	23.08	64
180-10/XX-J0	10 (65/28)	.111	2.81	.017	.43	.145	3.68	34.25	85
180-08/XX-X0	8 (84/27)	.147	3.73	.024	.61	.195	4.95	64.15	115
180-06/XX-X0	6 (84/25)	.183	4.65	.024	.61	.231	5.87	97.46	160
180-04/XX-L0	4 (133/25)	.263	6.68	.024	.61	.311	7.90	150.00	205
180-02/XX-M0	2 (259/26)	.323	8.20	.024	.61	.371	9.42	231.00	274
180-01/XX-M0	1 (259/25)	.372	9.44	.030	.76	.432	10.97	295.00	319



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



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Irradiation Cross-Linked Polymeric Insulation

PROPERTIES	EXAR® 180	
<b>Approvals / Listings:</b>		
UL	UL STYLE 3740	
CSA	AWM 1 A/B	
<b>Physical Properties: *</b>		
Temperature Rating (UL 3740)	1850°C	
Voltage Rating (Vrms)	600V	
Scrape Abrasion Resistance	818 cycles	
Shore "A" Hardness	NA	
Shore "D" Hardness	80	
Cold Bend - 4h @ -70°C	Passes	
Bend Radius	5- 9 Overall Diameter	
<b>Tensile Strength: *</b>		
Unaged	6,050 psi	
Retention after 7 days @ 210°C	Pass (> 85%)	
<b>Elongation: *</b>		
Unaged	410%	
Retention after 7 days @ 210°C	Pass (> 110%)	
<b>Flame Test: *</b>		
VW-1 FT1	Passes	
<b>Oil Resistance 135°C maximum.</b>		
1500 hrs. @150°C		
Tensile + Elongation -80% min.	Tensile -16% Elongation -57%	
<b>Chemical Resistance</b>		
Acetone	swell@23°C**	0%
Acid - H2SO4 S.G. 1.260 5%	swell@23°C**	0%
Engine Oil – ASTM D-471 IRM-902	swell@50°C**	0%
Benzene	swell@23°C/24h	0%
Epoxy	swell@23°C/24h	<1%
Gasoline – ASTM D-471 Fuel C	swell@23°C**	0%
Methanol	swell@23°C/24h	0%
Toluene	swell@23°C/24h	0%
Xylene	swell@23°C/24h	0%
<b>Electrical: *</b>		
Dielectric Constant	7.4	
Dielectric Breakdown Strength (Vrms)	19,000	
<b>Oxygen Index:</b>	42	

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### Sales Offices:

