PLAINTIFF'S EXHIBIT E-69

Industrial Construction Catalog File

Sweet's Construction Catalog Services
F. W. Dodge Company
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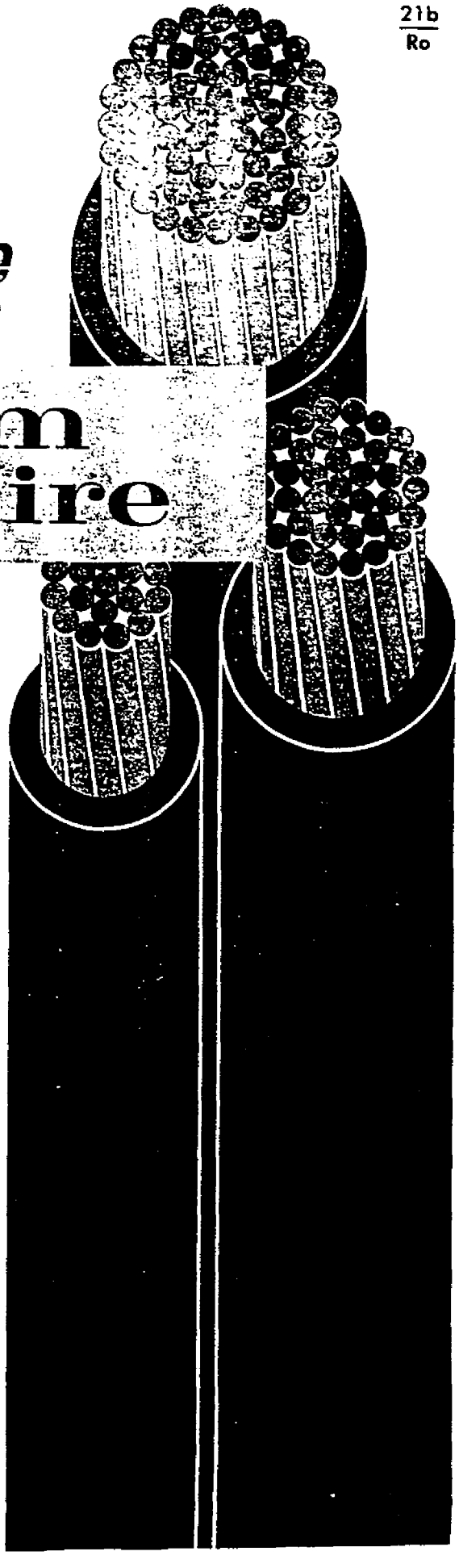
Rome Cable
DIVISION OF ALCOA

Aluminum Building Wire



ECONOMY

Past years, market price of aluminum has been substantially lower than the price of copper. So the substitution of equivalent aluminum conductors in a system originally designed for copper results in substantial savings. However, designing a system with aluminum in mind invariably results in even greater savings.

Installation costs whittle away part of this difference: aluminum conductor has a slightly greater diameter and thus slightly more area to insulate. Final price savings of aluminum over copper depend on the size of the conductor. Normally, as the size of the conductor increases, the savings by using aluminum become greater. This is true because in the larger sizes metal accounts for a greater portion of the total material costs.

INSTALLATION EASE

Where the conductor selected for a job weighs only half as much, aluminum wire is considerably lighter than copper. It's easier and faster to handle, easier and to install. Easier handling means better, neater installations; and because aluminum weighs less, it pulls easier than copper.

AVAILABILITY

Aluminum is the most abundant metallic element in the earth's crust. This insures adequate supplies of aluminum and helps keep the low price of aluminum relatively

Insulation Type Designations

Type TW
Type TW is an Underwriters' approved thermoplastic insulated building wire suitable for operating temperatures of 60°C in wet or dry locations.

Type THW
Type THW is an Underwriters' approved thermoplastic building wire suitable for operating temperatures of 75°C in wet or dry locations. The increased ampacity rating due to higher allowable conductor temperatures permits the use of smaller conductor sizes when compared to TW. Type THW has excellent resistance to oils, acids, sunlight, ozone, water, alkalis, and abrasion. For these reasons, it is recommended for hazardous industrial applications. Type THW has better heat deformation properties than TW. THW has clear, bright, permanent color identification and is easy stripping and easy pulling.

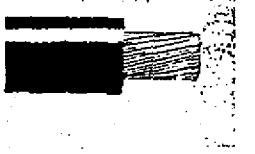


Type THWN
Type THWN has the same rating as Type THW. The THWN construction consists of a reduced wall of polyvinyl chloride plus a thin nylon sheath. This reduction in wall thickness results in smaller over-all diameter, enabling the use of smaller conduit size than required with THW.

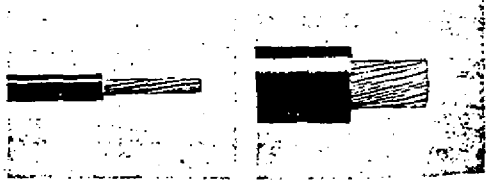
Type THHN
Type THHN has the same construction as Type THWN, however, it is rated for 90°C conductor temperature in dry locations.

Type UF Cable (Rome Flexall)
Type UF Cable is a thermoplastic-insulated, Underwriters' approved, nonmetallic sheathed cable designed especially for direct earth burial when provided with overcurrent protection and used at maximum conductor temperatures of 60°C. Type UF Cable has excellent resistance to moisture and corrosive action; therefore, it gives outstanding service in such environments. The principal uses would be for outside lights and feeder circuits to secondary buildings such as garages, barns, and workshops, where cable must be buried directly in the ground.

Type RHW or USE (Romarine Roprene)
Type RHW or USE is an Underwriters' approved cable suitable for maximum conductor temperature of 75°C. The thermosetting (rubber) insulation has excellent resistance to moisture and heat. The neoprene jacket gives excellent mechanical protection and is highly resistant to sunlight, weathering, abrasion, flame, oils, and most chemicals. This cable construction is very popular, since it may be buried directly in earth, installed in conduit, trough, or underground ducts, or used as aerial cable.



Type RHH-RHW–Rome XLP*
Rome RHH-RHW, 600-volt XLP is a cross-linked polyethylene insulated cable of unipass construction approved by Underwriters' for use in dry locations at 90°C and in wet locations at 75°C. This cable, with its thermosetting insulation, is often preferred over Type THW, which has thermoplastic insulation. In addition to its improved high temperature characteristics, Rome XLP has outstanding ability to withstand emergency overloads. Its excellent electrical properties, moisture resistance, toughness, and sunlight and weather resistance make Rome XLP a good choice for almost any application. It is widely used by electric utilities for direct burial, conduit, duct, trough or aerial installations. In applications where U/L approval is required, Type RHH-RHW is not approved for direct burial.



RHW or USE–Rome XLP*
Type RHW or USE–Rome XLP is a cross-linked polyethylene insulated cable approved by U/L for direct burial at maximum conductor temperature of 75°C. This unipass construction has a wall thickness which is 1/64" heavier than the RHH-RHW–Rome XLP type. The increased wall thickness provides additional mechanical protection while at the same time maintains the outstanding characteristics of RHH-RHW–Rome XLP.

*Rome XLP, cross-linked polyethylene, Trade Mark of Rome Cable Division of Alcoa.

Aluminum TW and THW Building Wire

(Ampacities are based upon 1965 National Electrical Code ampacity tables for not more than 3 insulated conductors in conduit with 30 C ambient temperature.)

Size AWG or MCM	No. of Strands	Insulation Thickness, 64ths	Approx. O.D., Inch	Approx. Net Wt. Lbs./M. Ft.	Ampacity TW 60 C Cond. Temp.	Ampacity THW 75°C Cond. Temp.
6	7	4	.31	57	40	50
4	7	4	.36	79	55	65
3	7	4	.39	95	65	75
2	7	4	.42	112	75	90
1	19	5	.49	145	85	100
1/0	19	5	.53	173	100	120
2/0	19	5	.58	207	115	135
3/0	19	5	.63	250	130	155
4/0	19	5	.69	302	155	180
250	37	6	.76	365	170	205
300	37	6	.82	424	190	230
350	37	6	.87	483	210	250
400	37	6	.92	540	225	270
500	37	6	1.00	654	260	310
600	61	7	1.11	812	285	340
700	61	7	1.18	913	310	375
750	61	7	1.22	960	320	385
800	61	7	1.25	1016	330	395
900	61	7	1.31	1125	355	425
1000	61	7	1.37	1235	375	445
1250	91	8	1.55	1747	405	485
1500	91	8	1.67	2019	435	520
1750	127	8	1.78	2293	455	545
2000	127	8	1.89	2569	470	560

Aluminum Single Conductor Type UF

AWG	No. of Strands	Insulation Thick.—64ths	Approx. O.D.—Inches	Approx. Net Wt. Lbs./M. Ft.	Ampacity 60°C Cond. Temp.
6	7	5	.35	66	40
4	7	5	.39	90	55
3	7	5	.42	107	65
2	7	5	.45	120	75
1	19	6	.53	190	85
1/0	19	6	.57	220	100
2/0	19	6	.61	265	115
3/0	19	6	.66	300	130
4/0	19	6	.72	340	155

Based on 1965 National Electrical Code.

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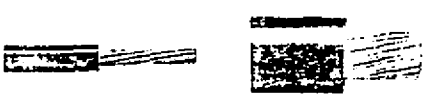

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19	6	.61	265	115
19	6	.66	300	130
19	6	.72	340	155

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(Ampacities are based upon 1965 National Electrical Code ampacity tables for not more than 3 conductors in or cable or direct burial with 30°C ambient temperature.)

Size AWG or MCM	No. of Strands	Insulation Thickness, 64ths	Jacket Thickness, Inches	Approx. O.D. Inches	Approx. Wt. Lbs./M. Ft.	Ampacity 75°C Cond. Temp.
6	7	4	.030	.37	80	50
4	7	4	.030	.42	105	66
3	7	4	.030	.45	125	75
2	7	4	.030	.48	140	90
1	19	5	.045	.58	190	100
1/0	19	5	.045	.62	220	120
2/0	19	5	.045	.67	260	135
3/0	19	5	.045	.72	310	155
4/0	19	5	.045	.78	360	180
250	37	6	.065	.89	460	205
300	37	6	.065	.94	530	230
350	37	6	.065	.99	590	250
400	37	6	.065	1.04	660	270
500	37	6	.065	1.13	780	310
600	61	7	.065	1.24	920	340
700	61	7	.065	1.34	1040	375
750	61	7	.065	1.34	1100	385
800	61	7	.065	1.38	1160	395
900	61	7	.065	1.44	1280	425
1000	61	7	.065	1.50	1390	445

Write for complete information on all of Romes' Aluminum Building Wire Types, contact the Rome Sales office nearest your location or write to Rome Cable, P.O. Box 71, Rome, N.Y. 13440, and request the "Aluminum Building Wire Manual", AR-3004.

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	Houston	5610 S[illegible] Street 713 781-[illegible]	
VIRGINIA	Richmond	2123 W. [illegible] Parkway 703 353-[illegible]	
WASHINGTON	Seattle	270 South Banford[illegible] 206 623-7991	
WISCONSIN	Milwaukee	4878 S. 76th St. Greenfield 414 281-6766	

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