

ROME TRAY CABLE, TYPE TC

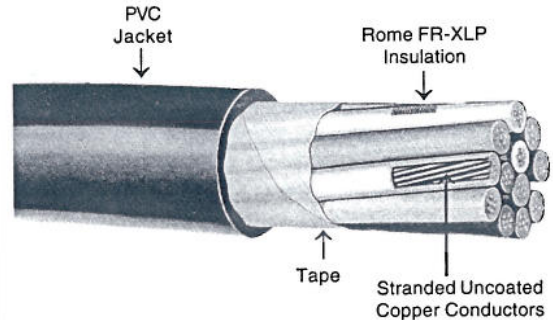
Rome FR-XLP Insulation, PVC Jacket, 600 Volts

APPLICATION: As superior flame-retardant multi-conductor control, signal or power cables rated 600 volts, 90°C in wet or dry locations. Specifically approved for installation in cable tray per Article 336 of the NEC. Also approved for use in Class 1 remote-control and signaling circuits per Article 725 of the NEC. Type TC cable is suitable for use in Class I and II, Division 2 hazardous locations. Cables may be installed in air, in ducts or conduits, in tray or trough, and are suitable for direct burial.

STANDARDS:

1. Listed by UL as Type TC per Standard 1277 for Tray Cables.
2. Cables UL listed for Direct Burial.
3. Individual conductors pass UL VW-1 flame test.
4. Individual conductors UL listed as Type XHHW-2 (14-10 AWG) or 90°C rated conductors (16 AWG).
5. Overall jacket UL listed as Sunlight Resistant.
6. Cables with grounding conductor UL listed for Open Wiring.
7. Cables pass IEEE Standard 383 ribbon burner test and ICEA 210,000 BTU/hr test.
8. Cables pass IEEE-1202/CSA FT4 (70,000 BTU/hr) cable tray flame test (14-10 AWG).
9. Cables meet requirements of ICEA S-73-532, NEMA WC57 for Control Cables.

CONSTRUCTION: Stranded uncoated copper conductors, 30 mils Rome FR-XLP flame-retardant crosslinked polyethylene insulation, color coded, two conductors flat, three or more conductors twisted with suitable fillers where necessary to make round, cable tape, PVC jacket overall, surface printed.



No. of Condrs.	# 10 AWG-7 Strand			# 12 AWG-7 Strand			# 14 AWG-7 Strand			# 16 AWG-7 Strand		
	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.
2	45	.28 x .46	117	45	.25 x .41	85	45	.23 x .37	65	45	.23 x .35	65
3	45	.49	167	45	.44	120	45	.39	90	45	.37	70
3 w/g	45	.49	205	45	.44	143	-	-	-	-	-	-
4	60	.57	230	45	.48	154	45	.43	113	45	.39	87
5	60	.62	280	45	.53	190	45	.47	137	45	.44	105
6	60	.67	325	60	.60	235	45	.51	160	45	.48	120
7	60	.67	370	60	.60	265	45	.51	180	45	.48	140
8	60	.74	415	60	.67	300	60	.59	220	45	.51	155
9	60	.79	455	60	.70	340	60	.63	250	45	.58	200
10	80	.90	550	60	.77	370	60	.69	270	60	.63	230
11	80	.90	595	60	.77	400	60	.69	290	60	.63	240
12	80	.93	640	60	.79	430	60	.70	310	60	.67	255
13	80	.95	685	60	.80	465	60	.72	335	60	.67	270
14	80	.97	725	60	.83	500	60	.74	360	60	.68	290
15	80	1.03	775	80	.92	535	60	.78	380	60	.71	315
16	80	1.03	820	80	.92	570	60	.78	400	60	.71	325
17	80	1.08	865	80	.96	605	60	.82	420	60	.75	350
18	80	1.08	905	80	.96	640	60	.82	440	60	.75	360
19	80	1.08	965	80	.96	675	60	.82	460	60	.75	370
20	80	1.14	1010	80	1.01	710	80	.90	525	60	.79	400
23	80	1.19	1145	80	1.06	815	80	.95	595	60	.82	450
25	80	1.26	1235	80	1.12	890	80	1.00	640	80	.91	530
27	80	1.29	1325	80	1.15	960	80	1.02	680	80	.93	560
29	80	1.31	1415	80	1.16	1030	80	1.03	720	80	.94	585
31	80	1.36	1505	80	1.21	1100	80	1.07	760	80	.98	625
32	80	1.39	1550	80	1.23	1135	80	1.10	780	80	.99	650
37	80	1.44	1775	80	1.28	1310	80	1.14	890	80	1.03	720

- Notes: 1. Cables designated (w/g) contain an additional bare copper grounding conductor, same size as circuit conductors, and are UL listed for Open Wiring.
2. Standard color coding is Method 1 for NEC Applications per Appendix E, Table E-2 of ICEA S-73-532 (TECH 1006). This color coding method omits white and green from the color sequence. A white or green conductor can be supplied on request.
3. Cable sizes 12-10 AWG approved under FAA Advisory Circular 150/5345-7E per Spec L-824 Airport Lighting Cable, Type C.

Information on this sheet subject to change without notice.

Specification

ROME TRAY CABLE, TYPE TC ROME FR-XLP Insulation, PVC Jacket, 600 Volts

1. SCOPE

- 1.1 This specification describes multi-conductor Rome Type TC Tray Cable insulated with Rome FR-XLP flame-retardant crosslinked polyethylene and PVC jacketed overall, for use on circuits rated 600 volts. Cables are recommended for operation at 90°C maximum continuous conductor temperature in wet or dry locations. The cables are specifically approved for installation in cable trays in accordance with Article 336 of the NEC and may also be used in Class 1 remote-control and signaling circuits per Article 725 of the Code. Cables may be installed in air, in ducts or conduits, in tray or trough, and are also suitable for direct burial. [Cables with ground are UL listed as Open Wiring per NEC 336.10(6)].

2. APPLICABLE STANDARDS

- 2.1 The following standards shall form a part of this specification to the extent specified herein:
- 2.1.1 Underwriters Laboratories Standard 1277 for Type TC Power and Control Tray Cables.
 - 2.1.2 Underwriters Laboratories Standard 44 for Rubber Insulated Wires and Cables.
 - 2.1.3 ICEA Pub. No. S-73-532, NEMA Pub. No. WC57, Control Cables.

3. CONDUCTORS

- 3.1 Conductors shall be Class B stranded uncoated soft copper conforming to Part 2 of ICEA. Conductor sizes shall be 16 AWG through 10 AWG. A nonhygroscopic separator may be used over the conductors at the option of the manufacturer.

4. INSULATION

- 4.1 **Compound:** Each conductor shall be insulated with Rome FR-XLP flame-retardant chemically crosslinked polyethylene, meeting the requirements of ICEA S-73-532, Table 3-2 (Type I-XLPE) and Type XHHW-2, VW-1 requirements of Underwriter's Laboratories.
- 4.2 **Thickness:** The average thickness of insulation shall be 30 mils. The minimum thickness at any point shall be not less than 90% of the specified average thickness.

5. CIRCUIT IDENTIFICATION

- 5.1 Circuit identification shall consist of Method 1 color coding for National Electric Code applications in accordance with ICEA S-73-532, Appendix E, Table E-2. Cables shall not contain a green or white conductor unless specifically ordered (TECH I006 Option A).

6. ASSEMBLY

- 6.1 Two conductor cable shall be flat without separator tape, unless otherwise specified. For three conductors or more, the insulated color coded conductors shall be cabled together with nonhygroscopic fillers, when necessary to make round. The cable assembly shall be covered with a suitable tape applied with a 10% minimum lap. Where indicated, a bare copper grounding conductor of the same size as the circuit conductors shall be included in the assembly.

7. OVERALL JACKET

- 7.1 **Compound:** Each cable shall have a PVC protective jacket applied over the assembly. The jacket shall meet the requirements of Part 4 of ICEA S-73-532, Table 4-2, and the Sunlight Resistant requirements of UL Standard 1277.
- 7.2 **Thickness:** The average jacket thickness shall be in accordance with UL Standard 1277. The minimum thickness at any point shall be not less than 80% of the specified average thickness.

8. SURFACE MARKING

- 8.1 Cables shall be identified by means of surface ink printing indicating: Rome Cable, Type TC, (UL), 600V, No. of conductors, Size, XHHW-2 (or 90°C) Condrs., Sun. Res., Direct Burial, E57349. Sizes 14-12 AWG with ground shall be printed Open Wiring.

9. TESTS

- 9.1 Individual conductors and completed cables shall be tested in accordance with UL requirements for Type TC Power and Control Tray Cables having XHHW-2 VW-1 insulated conductors.
- 9.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and IEEE.