

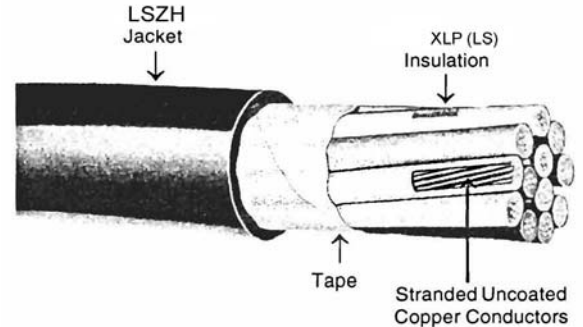
TRAY CABLE, TYPE TC (LSZH) LOW SMOKE ZERO HALOGEN XLP(LS) Insulation, (LSZH) Low-Smoke, Zero-Halogen Jacket, 600 Volts

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).

CONSTRUCTION: Stranded uncoated copper conductors, 30 mils XLP (LS) 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, (LSZH) jacket overall, surface printed.



USAWC Part #	No. of Condrs.	Cond. Size (AWG)	Cond. Strand	Insulation Thickness Inches	Jacket Thickness Inches	Nominal Cable Diameter Inches	Copper Weight lbs/1000 ft	Net Weight lbs/1000 ft
14 AWG MULTI CONDUCTORS								
14-02LSZHTCFL	2 flat	14	7	.030	.045	.365x.230	26	61
14-02LSZHTC	2	14	7	.030	.045	.370	26	71
14-03LSZHTC	3	14	7	.030	.045	.390	39	92
14-04LSZHTC	4	14	7	.030	.045	.425	53	115
14-05LSZHTC	5	14	7	.030	.045	.465	66	139
14-07LSZHTC	7	14	7	.030	.045	.505	92	173
14-09LSZHTC	9	14	7	.030	.060	.620	118	240
14-12LSZHTC	12	14	7	.030	.060	.700	158	301
14-19LSZHTC	19	14	7	.030	.060	.815	250	468
14-25LSZHTC	25	14	7	.030	.080	.935	323	624
14-30LSZHTC	30	14	7	.030	.080	1.030	387	747
14-37LSZHTC	37	14	7	.030	.080	1.110	466	875
12 AWG MULTI CONDUCTORS								
12-02LSZHTCFL	2 FLAT	12	7	.030	.045	.400x.245	40	82
12-02LSZHTC	2	12	7	.030	.045	.410	41	94
12-03WGLSZHTC	3+ Grnd	12	7	.030	.045	.410	85	148
12-03LSZHTC	3	12	7	.030	.045	.435	64	124
12-04LSZHTC	4	12	7	.030	.045	.475	85	157
12-05LSZHTC	5	12	7	.030	.045	.520	106	191
12-07LSZHTC	7	12	7	.030	.060	.595	149	268
12-09LSZHTC	9	12	7	.030	.060	.695	191	337
12-12LSZHTC	12	12	7	.030	.060	.765	247	428
12-19LSZHTC	19	12	7	.030	.080	.940	391	688
12-25LSZHTC	25	12	7	.030	.080	1.095	515	854
12-30LSZHTC	30	12	7	.030	.080	1.150	618	1002
12-37LSZHTC	37	12	7	.030	.080	1.240	762	1240
10 AWG MULTI CONDUCTORS								
10-02LSZHTCFL	2 flat	10	7	.030	.045	.445x.270	64	113
10-02LSZHTC	2	10	7	.030	.045	.455	65	128
10-03WGLSZHTC	3+ Grnd	10	7	.030	.045	.485	134	225
10-03LSZHTC	3	10	7	.030	.045	.485	100	172
10-04LSZHTC	4	10	7	.030	.060	.560	134	234
10-05LSZHTC	5	10	7	.030	.060	.615	167	284
10-07LSZHTC	7	10	7	.030	.060	.670	234	381
10-09LSZHTC	9	10	7	.030	.060	.760	295	464
10-12LSZHTC	12	10	7	.030	.080	.905	402	651

Specification

TRAY CABLE, TYPE TC

XLP (LS) Low Smoke Insulation, (LSZH) Low-Smoke, Zero-Halogen Jacket, 600 Volts

1. SCOPE

- 1.1 This specification describes multi-conductor Type TC Tray Cable insulated with XLP (LS) flame-retardant crosslinked polyethylene and (LSZH) 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 14 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 XLP (LS) low-smoke 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.

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 (LSZH) 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: Type TC, (UL), 600V, No. of conductors, Size, XHHW-2 (or 90°C) Condrs., Sun. Res., Direct Burial. 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.