

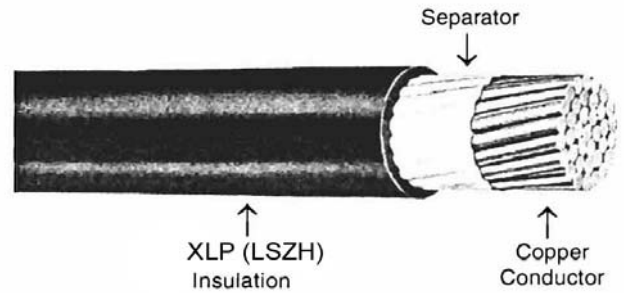
## USE or RHW-LS or RHH VW-1 (LSZH) Low-Smoke, Zero-Halogen XLP (LSZH) 600 VOLT, CLASS B

**APPLICATION:** General purpose wiring for lighting and power-residential, commercial, industrial buildings in accordance with the National Electrical Code and for other general purpose wiring applications. Suitable for use in circuits not exceeding 600 volts at conductor temperatures not exceeding 90°C in wet or dry locations. May be installed in raceway, cable tray, direct burial and aerial installations.

**STANDARDS:**

1. Listed by UL as Type USE (90°C wet or dry) per Standard 854 for Service Entrance Cables.
2. Listed by UL as Gasoline and Oil Resistant II.
3. Listed by UL as Types RHW (90°C wet or dry) or RHH (90°C dry) per Standard 44.
4. All sizes carry the VW-1 flame test designation.
5. UL listed as Sunlight Resistant (1/0 AWG and larger, black only).
6. UL listed For CT Use (1/0 and larger).
7. Cables pass IEEE 1202/CSA FT4 (70,000 BTU/hr) cable tray flame test (1/0 and larger).
8. Conforms to ICEA S-95-658/NEMA WC70, utilizing Column A insulation thicknesses.

**CONSTRUCTION:** Annealed copper conductor, XLP (LSZH) thermo-setting flame-retardant chemically crosslinked polyethylene insulation, surface printed.



USAWC Part #	Size AWG or kcmil	Conductor Strand (CLASS B)	Nominal Conductor Diameter Inches	Insulation Thickness Inches	Nominal Cable Diameter Inches	Copper Wt. lbs/1000 ft	Net Wt. lbs/ 1000 ft
14-01LSZH	14	7	.07	.045	.17	13	18
12-01LSZH	12	7	.09	.045	.19	20	25
10-01LSZH	10	7	.12	.045	.22	32	38
8-01LSZH	8	7	.15	.060	.28	50	58
6-01LSZH	6	7	.18	.060	.31	81	116
4-01LSZH	4	7	.23	.060	.36	129	171
2-01LSZH	2	7	.28	.060	.42	205	257
1-01LSZH	1	19	.32	.080	.49	258	331
1/0-01LSZH	1/0	19	.36	.080	.53	326	406
2/0-01LSZH	2/0	19	.41	.080	.58	411	495
3/0-01LSZH	3/0	19	.46	.080	.63	518	612
4/0-01LSZH	4/0	19	.51	.080	.68	653	757
250-01LSZH	250	37	.56	.095	.76	772	905
350-01LSZH	350	37	.66	.095	.87	1081	1237
500-01LSZH	500	37	.79	.095	1.00	1544	1728
750-01LSZH	750	61	.97	.110	1.21	2316	2572

## Specification

VW-1 USE or RHW or RHH

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

### 1. SCOPE

1.1 This specification describes single conductor XLP (LSZH), Type USE or RHW or RHH, flame-retardant cross-linked polyethylene insulated cables for use in circuits not exceeding 600 volts. Cables are listed by UL as Type USE and are recognized for underground use in wet locations at a maximum continuous conductor temperature of 90°C in accordance with Article 338 of the National Electrical Code. The cables are also listed by UL as Type RHH or RHW for general purpose wiring applications at maximum continuous conductor temperature of 90°C in dry locations (RHH) or 90°C in wet or dry locations (RHW) and may be installed in air, conduit or other recognized raceways in accordance with Article 310 of the National Electrical Code. All cables comply with UL's VW-1 (Vertical-Wire) Flame Test. Cables 1/0 AWG and larger pass IEEE 1202/CSA FT4 (70,000 BTU/hr) cable tray flame test. Sizes 1/0 AWG and larger may be used in cable tray in accordance with Article 392 of the NEC.

### 2. APPLICABLE STANDARDS

2.1 The following standards form a part of this specification to the extent specified herein:

2.1.1 Underwriters Laboratories Standard 854 for Service Entrance Cables.

2.1.2 Underwriters Laboratories Standard 44 for Rubber-Insulated Wires and Cables.

2.1.3 ICEA Pub. No. S-95-658, NEMA Pub. No. WC70 for Nonshielded Power Cables Rated 2000 Volts or Less.

### 3. CONDUCTORS

3.1 Conductors shall be Class B stranded, annealed uncoated copper per UL Standard 854 and 44.

### 4. SEPARATOR

4.1 A suitable separator over the conductor may be used at the option of the manufacturer.

### 5. INSULATION

5.1 Each conductor shall be insulated with XLP (LSZH), a flame-retardant crosslinked polyethylene complying with the physical and electrical requirements of UL Standard 854 for Type USE and UL Standard 44 for Types RHW or RHH and Table 3-7, Class X-2 of ICEA. In addition, the XLP insulation shall comply with the For CT Use (sizes 1/0 AWG and larger) and VW-1 flame test ratings and the Gasoline and Oil Resistant II ratings of UL Standard 44.

5.2 The average thickness of insulation, for a given conductor size, shall be as specified in UL Standard 44 for Types RHH and RHW-2 and Table 3-4, Column A of ICEA. The minimum thickness at any point shall be not less than 90% of the specified average thickness. The insulation shall be applied tightly to the conductor and shall be free-stripping.

### 6. IDENTIFICATION

6.1 The wire shall be identified by surface marking indicating manufacturer's identification, conductor size and metal, voltage rating, UL symbol, VW-1, type designations, Gasoline and Oil Resistant II and Sunlight Resistant For CT Use (1/0 AWG and larger).

### 7. TESTS

7.1 Wire shall be tested in accordance with the requirements of UL Standard 854 for Type USE, UL Standard 44 for Types RHW or RHH and ICEA S-95-658.

### 8. LABELS

8.1 The wire shall bear the Underwriters Laboratories labels for Type USE.