

# TELCOFLEX® L3 Telecom Power Wire and Cable



Images not to scale. See Table 1 for Dimensions

## CONSTRUCTION:

1. **Conductors:** Class B stranded, tinned copper
2. **Separator Tape:** Mylar tape
3. **Insulation:** Limited smoke, non-halogenated, 105°C Dry, 60°C Wet
4. **Separator Tape:** Mylar tape on 6 AWG and larger
5. **Cotton Braid**
6. **Saturant and Colored Finisher**

## APPLICATIONS AND FEATURES:

This specification covers the construction requirements for a limited smoke, non-halogenated power cable insulated with TelcoHyde® 5221 with an overall flame retardant saturated braid. UL listed Type RHH, FT4-ST1 in accordance with the National Electric Code. Product is for use in Central Office, CATV Head End, Data Center and Cell Tower applications. Cable is suitable for UL "CT USE" (Cable Tray rated) in sizes 1/0 AWG and larger.

## SPECIFICATIONS:

- ASTM B-8 and B-33 Class B tinned copper
- UL 44 Type RHH, FT4-ST1, VW-1, 600 Volts DC or AC
- KS-24194™ List 3
- UL 2731 Telecommunications Central Office Power Cable
- ATIS-0600017.2014 Non-Halogenated DC Power Wire and Cable for Telecommunications Power System
- Telecordia GR-347-CORE
- CSA AWM IB 105°C 600V. FT4-ST1
- Lead-Free, Silicone-Free, RoHS Complaint
- IEC including 60674 and 60332
- REACH - European Community Regulation

## SAMPLE PRINT LEGEND:

### SIZES 8 AWG THROUGH 2 AWG:

SOUTHWIRE AIW™ CORD BRAND TELCOFLEX® III/KS24194™ L3 NON-HAL (UL) E30117 SIZE (AWG OR KCMIL) 600 VOLTS RHH ST1 FT4 OR AWM 3578 60°C WET VW-1 --- LL90458 CSA AWM I B 105°C 600 VOLTS FT4 (YYYY) (TIME JULIAN DATE) --- MEETS IEC INCLUDING 60674 & 60332



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**SIZES 1/0 AWG THROUGH 750 KCMIL:**

SOUTHWIRE AIW™ CORD BRAND TELCOFLEX® III/KS24194™ L3 NON-HAL (UL) E30117 SIZE (AWG OR KCMIL) 600 VOLTS RHH ST1 FT4 FOR CT USE OR AWM 3578 60°C WET VW-1 --- LL90458 CSA AWM I B 105°C 600 VOLTS FT4 (YYYY) (TIME JULIAN DATE) --- MEETS IEC INCLUDING 60674 & 60332

NOTE: CABLE SHALL BE PRINTED ON BOTH SIDES USING INK OF CONTRASTING COLOR.

SEQUENTIAL FOOTAGE MARKS SHALL BE APPLIED AT 2 FOOT INTERVALS ON ONE SIDE OF THE CABLE.

**TABLE 1 – PHYSICAL AND ELECTRICAL DATA**

| SIZE | STRANDING | NOMINAL CONDUCTOR DIAMETER (INCHES) | INSUL. MIN. AVG. WALL (MILS) | NOMINAL INSUL. DIAM. (INCHES) | NOMINAL OUTSIDE DIAMETER OVER BRAID (INCHES) | MAX D.C RES @ 20°C (OHMS/MFT) | AMPACITY PER NEC TABLE 310.15(B)(16) |      |
|------|-----------|-------------------------------------|------------------------------|-------------------------------|----------------------------------------------|-------------------------------|--------------------------------------|------|
|      |           |                                     |                              |                               |                                              |                               | 75°C                                 | 90°C |
| 14   | 7/.0247"  | .0708                               | 45                           | .164                          | .226                                         | 2.730                         | 20                                   | 25   |
| 12   | 7/.0311"  | .0892                               | 45                           | .182                          | .244                                         | 1.720                         | 25                                   | 30   |
| 10   | 7/.0392"  | .1130                               | 45                           | .210                          | .272                                         | 1.080                         | 35                                   | 40   |
| 8    | 7/.0495"  | .1420                               | 60                           | .265                          | .327                                         | 0.6795                        | 50                                   | 55   |
| 6    | 7/.0624"  | .1780                               | 60                           | .304                          | .370                                         | 0.4276                        | 65                                   | 75   |
| 4    | 7/.0787"  | .2250                               | 60                           | .348                          | .414                                         | 0.2689                        | 85                                   | 95   |
| 2    | 7/.0992"  | .2830                               | 60                           | .406                          | .482                                         | 0.1691                        | 115                                  | 130  |
| 1/0  | 19/.0760" | .3620                               | 80                           | .530                          | .606                                         | 0.1063                        | 150                                  | 170  |
| 2/0  | 19/.0853" | .4050                               | 80                           | .579                          | .651                                         | 0.08432                       | 175                                  | 195  |
| 4/0  | 19/.1076" | .5120                               | 80                           | .688                          | .756                                         | 0.05248                       | 230                                  | 260  |
| 350  | 37/.0991" | .6610                               | 95                           | .854                          | .930                                         | 0.03206                       | 310                                  | 350  |
| 500  | 37/.1185" | .7900                               | 95                           | .983                          | 1.059                                        | 0.02222                       | 380                                  | 430  |
| 750  | 61/.1130" | .9680                               | 110                          | 1.200                         | 1.276                                        | 0.01481                       | 475                                  | 535  |

**A. CONDUCTORS:**

Class B stranded, tin-coated copper conforming to ASTM B-33 and Underwriters' Laboratories requirements. An Mylar tape shall be applied over the conductor to facilitate stripping.

**B. INSULATION:**

105°C rated low smoke, non-halogen TelcoHyde® 5221 conforming to Underwriters' Laboratories Standard 44, Standard 758 and CSA C22.2 No. 210-11. In addition, TelcoHyde® complies with the requirements of Telcordia Specification GR-347-CORE. The insulation has a Limiting Oxygen Index of 35%.

**C. SEPARATOR:**

On sizes 6 AWG and larger, a 1 mil Mylar tape shall be applied over the insulation.

**D. COVERING AND FINISH:**

On all sizes, a natural cotton braid conforming to UL Standard 44 requirements is applied overall. A section of completed cable has a Limiting Oxygen Index of 35%. A moisture resistant, fire retardant saturant and a colored finisher are applied to the braid.



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**E. TESTING:**

Physical and electrical tests in accordance with the requirements of UL Standard 44, Standard 758, and CSA Standard C22.2 No. 210-11 as AWM.

**F. LABELS:**

UL and CSA tags and labels shall be applied to all packages.

**G. LENGTHS AND PACKAGING:**

All put-ups on length only unless agreed to otherwise. Maximum lengths per size will be advised. The ends of the cable shall be capped or taped to prevent the entrance of moisture during shipment or storage.

**PART NUMBERS FOR TELCOFLEX® L3**

| SIZE<br>ALL<br>ITEMS<br>ARE NOT<br>BRAIDED | TELCOFLEX LIST 3 COLORS |          |          |          |          |                 |                 |                 |
|--------------------------------------------|-------------------------|----------|----------|----------|----------|-----------------|-----------------|-----------------|
|                                            | GRAY                    | GREEN    | BLUE     | RED      | BLACK    | RED             | BLUE            | GRAY            |
|                                            |                         |          |          |          |          | BLACK<br>TRACER | BLACK<br>TRACER | BLACK<br>TRACER |
| 14                                         | 57133601                | 57145701 | 57155601 | 57133701 | 57133501 | 64157301        | W39794          |                 |
| 12                                         | 56969501                | 56969601 | 56969401 | 56969701 | 56969301 | W39799          | W39800          |                 |
| 10                                         | 57051101                | 56968201 | 56968001 | 56968301 | 56967901 | 56968401        | W39806          |                 |
| 8                                          | 57126701                | 56988001 | 57149001 | 56988101 | 56987901 | W39811          | W39812          | W40771          |
| 6                                          | 56986401                | 56986501 | 56986201 | 56986601 | 56986101 | 56986701        | 57149101        | 57141001        |
| 4                                          | 56982601                | 56982801 | 56982401 | 56982901 | 57128701 | 56983101        | 56982501        | 56982701        |
| 2                                          | 56975701                | 56976001 | 56976101 | 56975801 | 56975901 | 56976201        | 56976301        | 56976501        |
| 1/0                                        | 56966701                | 56966901 | 56966401 | 56967001 | 57138401 | 56967101        | 56966601        | 56966801        |
| 2/0                                        | 56977701                | 56977901 | 56977501 | 56978101 | 57138301 | 56978201        | 56977601        | 56977801        |
| 4/0                                        | 56984501                | 56984701 | 56984301 | 56984901 | 56984201 | 56985001        | 56984401        | 56984601        |
| 350                                        | 56980801                | 57156901 | 57149201 | 56981001 | 57138201 | 56981101        | 56980701        | 56980901        |
| 500                                        | 56963301                | 56963501 | 56963001 | 57155501 | 56962901 | 56963601        | 56963101        | 56963401        |
| 750                                        | 56961301                | 56961501 | 56961101 | 56961701 | 58203701 | 57126201        | 56961201        | 56961401        |

