

Non-UL Oil Resistant/High Temperature (5900 Series)

Scope

This specification covers AFC Cable Systems, Inc. LIQUID-TUFF™ Non-UL Oil Resistant/High Temperature Liquidtight Flexible Steel Conduit designed for use in high temperature oily applications. The product is intended for use at 105°C (221°F) in a dry location, 60°C (140°F) in a wet location, 70°C (158°F) in an oily location and at -26°C (-15°F) in a low temperature application. The product is rated for outdoor and sunlight resistant use in dark colors.

The product is designed to be used for specific applications where Underwriters Laboratories Inc. (UL) or other agency approvals are not required.

Construction

Non-UL Oil Resistant/High Temperature Liquidtight Flexible Steel Conduit shall be formed from a zinc coated galvanized low carbon steel strip having a uniform width and thickness. The convolutions of the interlock shall be filled with a fibrous material designed to promote flexibility.

Jacket – PVC

A rugged moisture, oil and sunlight resistant polyvinyl chloride (PVC) jacket shall be applied directly over the flexible metal conduit with a wall thickness in accordance with Table 1. Jacket: Gray

Grounding

A separate grounding conductor is required for all trade sizes.

Markings

The surface of the outer jacket shall be clearly marked with the applicable legible print legend.

Performance Tests

The completed LIQUID-TUFF™ Non-UL Oil Resistant/High Temperature Liquidtight Flexible Steel Conduit shall meet all of the performance requirements outlined in Appendix A.



Description

- High-quality PVC jacket for oil resistance and high temperatures – Gray
- Hot dipped zinc galvanized low carbon steel core
- Excellent flexibility
- Non-UL Liquidtight electrical raceway

Temperature Rating

- 105°C (221°F) DRY
- 60°C (140°F) WET
- 70°C (158°F) OIL RESISTANT
- -30°C (-22°F) LOW TEMPERATURE

Applications

Suitable for use in:

- Oily and harsh chemical environments
- UV resistant
- Excellent flexibility
- Industrial applications
- Indoor or outdoor locations
- Provides mechanical protection for conductors

References & Ratings

- Non-UL
- Separate grounding conductor required in all sizes
- Made in USA of US and/or imported materials

| TABLE 1. | | | | | | | | | |
|----------------------|------------|-------------------|--------------------|--------------------|-----------------------------------|--|--------------------------------------|--------------------------------|----------------------|
| ORDERING INFORMATION | | | | | PRODUCT DIMENSIONS/BEND RADIUS | | | | |
| Product Code | Trade Size | Metric Designator | Coil Length (feet) | Reel Length (feet) | Approx. Weight/ 100 feet (pounds) | Min. Average Jacket Thickness (inches) | Internal Diameter (min/max) (inches) | Over Jacket (min/max) (inches) | Bend Radius (inches) |
| 5901-30-00 | 3/8 | 12 | 100 | – | 22 | 0.03 | 0.484/0.504 | 0.690/0.710 | 2 |
| 5901-45-00 | 3/8 | 12 | – | 500 | 22 | 0.03 | 0.484/0.504 | 0.690/0.710 | 2 |
| 5901-60-00 | 3/8 | 12 | – | 1000 | 22 | 0.03 | 0.484/0.504 | 0.690/0.710 | 2 |
| 5902-30-00 | 1/2 | 16 | 100 | – | 26 | 0.03 | 0.622/0.642 | 0.820/0.840 | 3.25 |
| 5902-45-00 | 1/2 | 16 | – | 500 | 26 | 0.03 | 0.622/0.642 | 0.820/0.840 | 3.25 |
| 5902-60-00 | 1/2 | 16 | – | 1000 | 26 | 0.03 | 0.622/0.642 | 0.820/0.840 | 3.25 |
| 5903-30-00 | 3/4 | 21 | 100 | – | 34 | 0.035 | 0.820/0.840 | 1.030/1.050 | 4.25 |
| 5903-45-00 | 3/4 | 21 | – | 500 | 34 | 0.035 | 0.820/0.840 | 1.030/1.050 | 4.25 |
| 5903-60-00 | 3/4 | 21 | – | 1000 | 34 | 0.035 | 0.820/0.840 | 1.030/1.050 | 4.25 |
| 5904-30-00 | 1 | 27 | 100 | – | 46 | 0.035 | 1.041/1.066 | 1.290/1.315 | 6.5 |
| 5904-41-00 | 1 | 27 | – | 400 | 46 | 0.035 | 1.041/1.066 | 1.290/1.315 | 6.5 |
| 5905-24-00 | 1-1/4 | 35 | 50 | – | 62 | 0.035 | 1.380/1.410 | 1.630/1.660 | 8 |
| 5905-40-00 | 1-1/4 | 35 | – | 200 | 62 | 0.035 | 1.380/1.410 | 1.630/1.660 | 8 |
| 5906-24-00 | 1-1/2 | 41 | 50 | – | 91 | 0.035 | 1.575/1.600 | 1.865/1.900 | 9 |
| 5907-24-00 | 2 | 53 | 50 | – | 120 | 0.04 | 2.020/2.045 | 2.340/2.375 | 11.12 |
| 5908-22-00 | 2-1/2 | 63 | 25 | – | 122 | 0.05 | 2.480/2.505 | 2.840/2.875 | 14.62 |
| 5909-22-00 | 3 | 78 | 25 | – | 148 | 0.05 | 3.070/3.100 | 3.460/3.500 | 17.5 |
| 5910-22-00 | 3-1/2 | 91 | 25 | – | 202 | 0.06 | 3.500/3.540 | 3.960/4.000 | 20 |
| 5911-22-00 | 4 | 103 | 25 | – | 255 | 0.06 | 4.000/4.040 | 4.460/4.500 | 24 |

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.

| Appendix A | |
|-----------------------------|-----------------------------|
| Performance Tests | |
| Flexibility | Moisture Penetration |
| Low Temperature Flexibility | Mechanical Water Absorption |
| Vertical Flame | Sunlight Resistance |
| Physical Properties | |