

# LIQUID-TUFF™

## Non-UL Extreme Temperature Liquidtight Flexible Metal Conduit

### Description

- High quality thermoplastic rubber jacket – Black
- Ability to withstand extremes in temperature
- Hot dipped zinc galvanized low carbon steel core
- Halogen free
- Oil and ozone resistant
- Superior flexibility

### Temperature Rating

- 150°C/302°F Dry – Intermittent use
- 135°C/275°F Dry – Continuous use
- 60°C Oily and wet
- -60°C/-76°F Low temperature brittle point

### Applications

- Resists extremes in temperature
- Very high operating temperatures
- For location requiring halogen free conduits
- Industrial applications
- Indoor or outdoor locations
- Provides mechanical protection for conductors



### References & Ratings

- Non-UL
- Meets UL 94HB flammability requirements
- Meets ASTM® D746 low temperature brittle point -60°/-76°F
- Separate grounding conductor is required for all trade sizes

### Ordering Information

### Product Dimensions/Bend Radius

| Product Code | Trade Size (inches) | Trade Size (mm) | Coil Length (feet) | Reel Length (feet) | Approx. Weight/100 feet (pounds) | External Diameter (inches) |                       | Internal Diameter (min/max) inches | Bend Radius (inches) |
|--------------|---------------------|-----------------|--------------------|--------------------|----------------------------------|----------------------------|-----------------------|------------------------------------|----------------------|
|              |                     |                 |                    |                    |                                  | Over Conduit (min/max)     | Over Jacket (min/max) |                                    |                      |
| 6801-30-00   | 3/8                 | 12              | 100'               | —                  | 19                               | 0.594/0.614                | 0.690/0.710           | 0.484/0.504                        | 2                    |
| 6802-30-00   | 1/2                 | 16              | 100'               | —                  | 23                               | 0.732/0.765                | 0.820/0.840           | 0.622/0.642                        | 3.25                 |
| 6802-45-00   | 1/2                 | 16              | —                  | 500'               | 23                               | 0.732/0.765                | 0.820/0.840           | 0.622/0.642                        | 3.25                 |
| 6802-60-00   | 1/2                 | 16              | —                  | 1000'              | 23                               | 0.732/0.765                | 0.820/0.840           | 0.622/0.642                        | 3.25                 |
| 6803-30-00   | 3/4                 | 21              | 100'               | —                  | 29                               | 0.930/0.960                | 1.030/1.050           | 0.820/0.840                        | 4.25                 |
| 6803-45-00   | 3/4                 | 21              | —                  | 500'               | 29                               | 0.930/0.960                | 1.030/1.050           | 0.820/0.840                        | 4.25                 |
| 6803-60-00   | 3/4                 | 21              | —                  | 1000'              | 29                               | 0.930/0.960                | 1.030/1.050           | 0.820/0.840                        | 4.25                 |
| 6804-30-00   | 1                   | 27              | 100'               | —                  | 40                               | 1.201/1.226                | 1.290/1.315           | 1.041/1.066                        | 6.5                  |
| 6804-41-00   | 1                   | 27              | —                  | 400'               | 40                               | 1.201/1.226                | 1.290/1.315           | 1.041/1.066                        | 6.5                  |
| 6805-24-00   | 1¼                  | 35              | 50'                | —                  | 52                               | 1.540/1.570                | 1.630/1.660           | 1.380/1.410                        | 8                    |
| 6805-40-00   | 1¼                  | 35              | —                  | 200'               | 52                               | 1.540/1.570                | 1.630/1.660           | 1.380/1.410                        | 8                    |
| 6806-24-00   | 1½                  | 41              | 50'                | —                  | 81                               | 1.735/1.770                | 1.865/1.900           | 1.575/1.600                        | 9                    |
| 6807-24-00   | 2                   | 53              | 50'                | —                  | 106                              | 2.180/2.215                | 2.340/2.375           | 2.020/2.045                        | 11.12                |
| 6808-22-00   | 2½                  | 63              | 25'                | —                  | 108                              | 2.640/2.675                | 2.840/2.875           | 2.480/2.505                        | 14.62                |
| 6809-22-00   | 3                   | 78              | 25'                | —                  | 130                              | 3.295/3.335                | 3.460/3.500           | 3.070/3.100                        | 17.5                 |
| 6810-22-00   | 3½                  | 91              | 25'                | —                  | 178                              | 3.720/3.789                | 3.960/4.000           | 3.500/3.540                        | 20                   |
| 6811-22-00   | 4                   | 103             | 25'                | —                  | 225                              | 4.220/4.280                | 4.460/4.500           | 4.000/4.040                        | 24                   |

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

Not for grounding.

# LIQUID-TUFF™

## Non-UL Extreme Temperature Liquidtight Flexible Metal Conduit

### Scope

This specification covers AFC Cable Systems, Inc. LIQUID-TUFF™ Non-UL EXTREME TEMPERATURE Liquidtight, Flexible Metal Conduit designed for use where operation at a high temperature is required. The product is appropriate for intermittent use at 150°C (302°F) and continuous use at 135°C (275°F) in a dry location, 60°C in a wet location or 60°C in an oily location. The LIQUID-TUFF™ EXTREME TEMPERATURE jacket material is halogen-free, meets UL 94HB flammability requirements and has a low temperature brittle point of -60°C (-76°F).

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

### Construction

The Non-UL EXTREME TEMPERATURE Liquidtight, Flexible Steel Conduit core shall be formed into a very flexible interlocked steel conduit from a zinc coated galvanized low carbon steel strip having a uniform width and thickness. The convolutions of the interlock shall be filed with a fibrous material designed to promote flexibility.

### Jacket – TPR

A rugged moisture, oil and ozone resistant thermoplastic elastomer jacket shall be extruded directly over the interlocked very flexible steel core. The jacket is halogen free, has a UL 94HB Flammability Rating and has a -60°C (-76°F) Low Temperature Brittle Point when tested in accordance with ASTM® D-746. The wall thickness is in conformance with Table 1. Jacket: Black

720-Hour Xenon-Arc sunlight/weather resistance - ASTM D2565 and ASTM G155.

### Grounding

A separate grounding conductor is required for all trade sizes.

### Markings

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

### Performance Tests

The completed LIQUID-TUFF™ Non-UL EXTREME TEMPERATURE Liquidtight Flexible Steel Conduit shall meet all of the applicable performance requirements.



**Table 1**  
**Jacket Thickness**

| Conduit Trade |                   | Minimum Acceptable Average Thickness of Jacket, (inches) |
|---------------|-------------------|--|
| Trade Size    | Metric Designator |  |
| 3/8           | 12                | 0.030  |
| 1/2           | 16                | 0.030  |
| 3/4           | 21                | 0.035  |
| 1             | 27                | 0.035  |
| 1¼            | 35                | 0.035  |
| 1½            | 41                | 0.040  |
| 2             | 53                | 0.040  |
| 2½            | 63                | 0.050  |
| 3             | 78                | 0.050  |
| 3½            | 91                | 0.060  |
| 4             | 103               | 0.060  |