

Non-UL Extreme Temperature (6800 Series)

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 use at 150°C continuous use in a dry location, 60°C (140°F) in a wet location or 70°C (158°F) 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 filled with a fibrous material designed to promote flexibility.

Jacket – TPE

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® D746. The wall thickness is in conformance with Table 1. The Black Jacket complies with 720-Hour Xenon-Arc sunlight/weather resistance test - 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.



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 - CONTINUOUS USE
- 60°C (140°F) WET
- 70°C (150°F) OIL
- -60°C (-76°F) LOW TEMPERATURE BRITTLE POINT

Applications

- Superior UV and Ozone resistance
- 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
- Made in USA of US and/or imported materials

TABLE 1.									
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)	Min. Average Thickness of Jacket (inches)	Internal Diameter (min/max) (inches)	Over Jacket (min/max) (inches)	Bend Radius (inches)
6801-30-00	3/8	12	100	—	19	0.030	0.484/0.504	0.690/0.710	2
6802-30-00	1/2	16	100	—	23	0.030	0.622/0.642	0.820/0.840	3.25
6802-45-00	1/2	16	—	500	23	0.030	0.622/0.642	0.820/0.840	3.25
6802-60-00	1/2	16	—	1000	23	0.030	0.622/0.642	0.820/0.840	3.25
6803-30-00	3/4	21	100	—	29	0.035	0.820/0.840	1.030/1.050	4.25
6803-45-00	3/4	21	—	500	29	0.035	0.820/0.840	1.030/1.050	4.25
6803-60-00	3/4	21	—	1000	29	0.035	0.820/0.840	1.030/1.050	4.25
6804-30-00	1	27	100	—	40	0.035	1.041/1.066	1.290/1.315	6.5
6804-41-00	1	27	—	400	40	0.035	1.041/1.066	1.290/1.315	6.5
6805-24-00	1-1/4	35	50	—	52	0.035	1.380/1.410	1.630/1.660	8
6805-40-00	1-1/4	35	—	200	52	0.035	1.380/1.410	1.630/1.660	8
6806-24-00	1-1/2	41	50	—	81	0.040	1.575/1.600	1.865/1.900	9
6807-24-00	2	53	50	—	106	0.040	2.020/2.045	2.340/2.375	11.12
6808-22-00	2-1/2	63	25	—	108	0.050	2.480/2.505	2.840/2.875	14.62
6809-22-00	3	78	25	—	130	0.050	3.070/3.100	3.460/3.500	17.5
6810-22-00	3-1/2	91	25	—	178	0.060	3.500/3.540	3.960/4.000	20
6811-22-00	4	103	25	—	225	0.060	4.000/4.040	4.460/4.500	24

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. **Not for grounding.**