



Technical Specifications

LIQUID-TUFF™

UL Hi-Low Temperature Liquidtight Flexible Steel Conduit, Type LFMC

Page 1 of 2

Scope

This specification covers Kaf-Tech's UL Listed LIQUID-TUFF™ Hi-Low Liquidtight Flexible Steel Conduit designed for use as a raceway for power, control and communication cables in accordance with Article 350 of the National Electrical Code. The product is Underwriters Laboratories Inc. (UL) Listed for 105°C (221°F) in a dry location, 60°C (140°F) in a wet location and 70°C (158°F) in an oily location. It is also UL Listed in all trade sizes for direct burial, outdoor use and sunlight resistance. THE LIQUID-TUFF™ HI-LOW IS UL LISTED FOR -55°C (-67°F) LOW TEMPERATURE APPLICATIONS. This Liquidtight Flexible Steel Conduit is manufactured and tested in accordance with Underwriters Laboratories Inc. Standard UL 360. The product carries the UL Listing Mark.

Construction

The Type Hi-Low Liquidtight Flexible Steel Conduit shall be formed from a zinc coated galvanized low carbon steel strip having a uniform width and thickness. The construction shall be in accordance with UL 360. The finished Type Hi-Low LFMC dimensions shall be in accordance with Table 5.1 of UL 360 which is summarized in Table 3.

Jacket

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 4.1 of UL 360 which is summarized in Table 2.

Grounding

Permanent circuit ground protection is provided through the continuous copper bonding strip built into the conduit core in sizes 3/8" through 1 1/4". A separate grounding conductor is required by the NEC® for trade sizes 1 1/2" and larger.

Markings

The surface of the outer jacket shall be clearly marked with a legible print legend in compliance with UL 360.

Performance Tests

In accordance with UL 360, the completed LIQUID-TUFF™ Hi-Low Liquidtight Flexible Steel Conduit shall meet all of the performance requirements outlined in Appendix A.

Ordering Information Page 14



Reference Standards

UL 360	Standard for Liquidtight Flexible Steel Conduit
File Reference(s):	UL E26540
NEC® Articles:	250.102, 250-118(7), 250.134(B), 350, 390.15, 501.4(B)(2), 502.4(A)(1)(e), 503.3(A)(2), 511.7(A)(1), 645.5(D)(2), 680.21, 680.42, 695.6(E) and 695.14(E)

Department of Defense Adopted UL 360 on October 1, 1987



UL Hi-Low Temperature Liquidtight Flexible Steel Conduit, Type LFMC



Table 2
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

Appendix A

UL Performance Tests

Resistance and High Current
 Fault Current
 Impact
 Tension
 Crushing
 Pipe Stiffness
 Flexibility
 Low Temperature Flexibility
 Zinc Coating
 Vertical Flame
 Physical Properties
 Deformation
 Mechanical Water Absorption
 Moisture Penetration
 Sunlight Resistance
 Test for Secureness of Fittings
 Test for Durability of Ink Printing

Table 3
Conduit Diameters
Acceptable Internal and External Diameters

Conduit Size		Internal Diameter, In.		Over Conduit, In.		Over Jacket, In.	
Trade Size, In.	Metric Designator	Min.	Max.	Min.	Max.	Min.	Max.
3/8	12	0.484	0.504	0.594	0.614	0.690	0.710
1/2	16	0.622	0.642	0.732	0.765	0.820	0.840
3/4	21	0.820	0.840	0.930	0.960	1.030	1.050
1	27	1.041	1.066	1.201	1.226	1.290	1.315
1¼	35	1.380	1.410	1.540	1.570	1.630	1.660
1½	41	1.575	1.600	1.735	1.770	1.865	1.900
2	53	2.020	2.045	2.180	2.215	2.340	2.375
2½	63	2.480	2.505	2.640	2.675	2.840	2.875
3	78	3.070	3.100	3.295	3.335	3.460	3.500
3½	91	3.500	3.540	3.720	3.789	3.960	4.000
4	103	4.000	4.040	4.220	4.280	4.460	4.500