



Technical Specifications

LIQUID-TUFF™

Non-UL Oil Resistant/High Temperature Liquidtight Flexible Steel Conduit

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Scope

This specification covers Kaf-Tech's LIQUID-TUFF™ Non-UL Oil Resistant/High Temperature Liquidtight Flexible Steel Conduit designed for use as a raceway for power, control and communication cables. 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.

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 filed with a fibrous material designed to promote flexibility.

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 2.

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.

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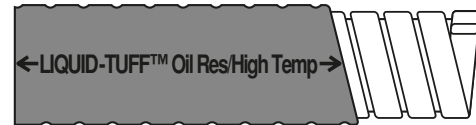


Table 2
Jacket Thickness

Trade Size	Conduit Trade Metric Designator	Minimum Acceptable Average Thickness of Jacket, (inches)
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

The finished product dimensions shall be in accordance with Table 3.

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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

Appendix A

Performance Tests

- Flexibility
- Low Temperature Flexibility
- Zinc Coating
- Vertical Flame
- Physical Properties
- Mechanical Water Absorption
- Moisture Penetration
- Sunlight Resistance