Liquid-Tuff™

Flexible Liquidtight Conduit

Atkore™

About Atkore™

Atkore is forging a future where our employees, customers, suppliers, shareholders, and communities are building better together – a future focused on serving the customer and powering and protecting the world.

With manufacturing and distribution facilities worldwide, Atkore is a leading provider of electrical, safety and infrastructure solutions.

Our Mission
To be the customer's first choice by providing unmatched quality, delivery and value based on sustainable excellence in strategy, people, and processes.

About AFC Cable Systems®

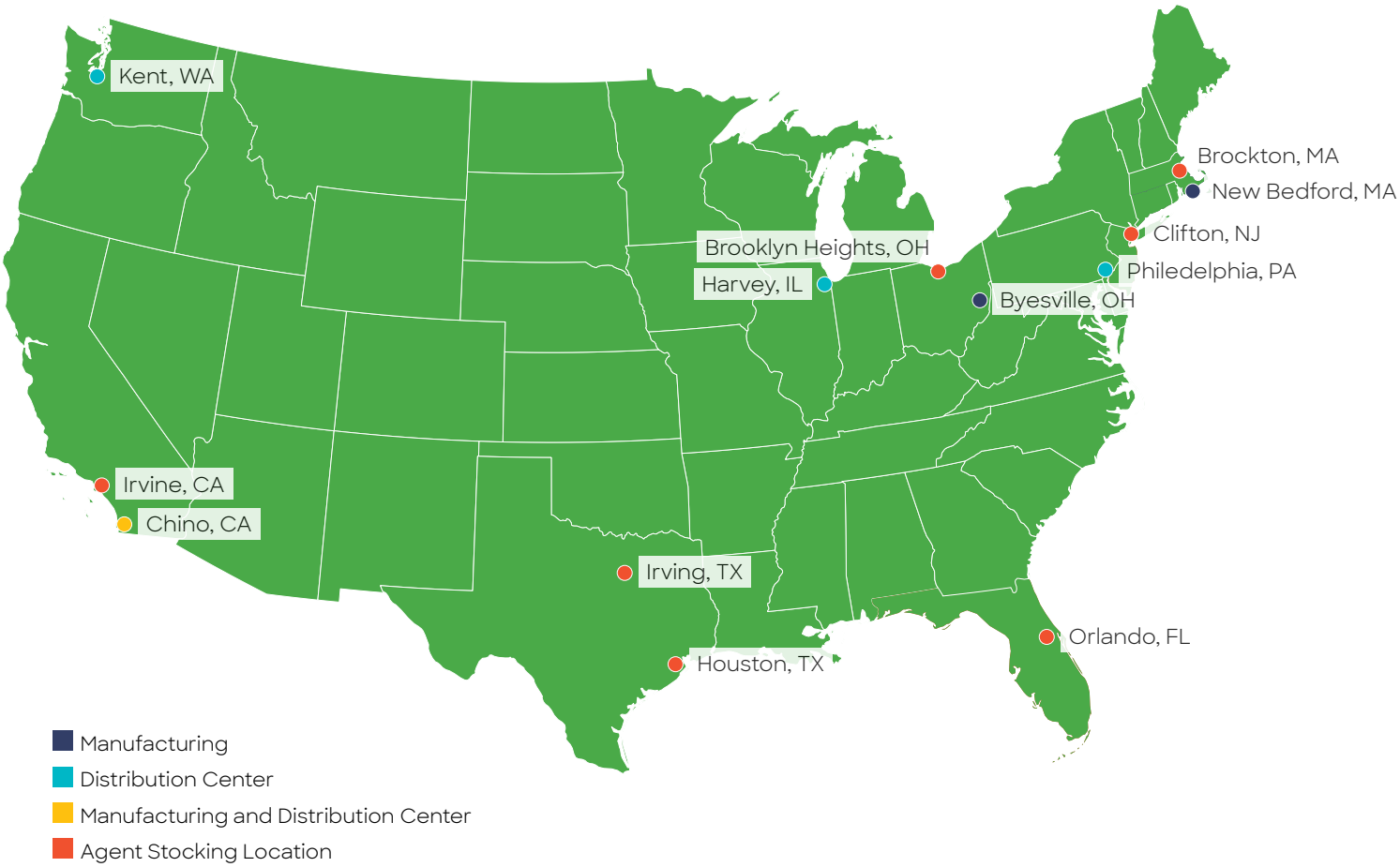
Atkore
AFC Cable Systems

Since 1926, AFC Cable Systems® has been a market leader in armored & metal clad cables, liquidtight, and flexible metal conduits.

Known for innovation in the electrical industry some of our most trusted brands, under our flexible conduit line are Liquid-Tuff™, Splash Zone, Ultraflex® and Flexcon®.

Manufactured in the US; all our flexible conduit is manufactured in facilities across the United States. With an expansive national distribution network, we can meet your delivery standards.

Long Length Reels; The ability to produce all our flexible conduit, including non-metallic liquidtight product, in industry exclusive 3,500ft reel lengths, reduces labor and material costs and product waste.



Allied Tube & Conduit® Fittings

Building Better Together: Allied Tube & Conduit - Fittings

Since 1959, Allied Tube & Conduit has been reshaping the pipe and tube industry and is a leading brand for EMT, IMC and Rigid conduits made of steel, PVC, and Aluminum.

The Allied Tube & Conduit – Fitting's product line is a part of Atkore's portfolio of industry leading brands combining to offer you the power of one Atkore. We offer a large selection of electrical fitting solutions for connecting all your electrical raceway systems.

Combining AFC liquidtight flexible conduits with liquidtight fittings from Allied Tube & Conduit, provides you with a complete liquidtight solution to meet your application needs.

On your next job, get connected with Allied Tube & Conduit - Fittings.

For more information about Allied Tube & Conduit Fitting's product offerings visit Atkore.com/atce/fittings

About Flexicon

Atkore's product portfolio includes an extensive range of Flexicon™ flexible cable protection solutions. Manufactured in the UK, stocked in the USA.

Flexicon manufactures over 60 families of non-metallic and metallic conduit systems that provide superior cable protection for the most demanding environments and applications. Used across diverse markets from rail and transit, food and beverage to renewable energies, Flexicon's portfolio has a solution for your needs, including their market leading Flexicon Ultra® conduit systems and new labor-saving Connectabox™ product.

Committed to reliability and performance Flexicon's products hold industry recognized certifications such as UL, NSF, RoHS and Reach. Flexicon's comprehensive range of flexible conduit solutions have been installed on all 7 continents and in over 55 countries protecting people, property, and processes all over the world.

For more information about Flexicon's product offerings visit Atkore.com/afc/flexicon

Liquidtight Flexible Conduit Markets

Red Liquidtight	Applications
• Fire Alarm • Security • Emergency Circuitry	  

Orange Liquidtight	Applications
• Maintenance • Fiber Optic • Construction	  

Yellow Liquidtight	Applications
• High Voltage • Special Equipment	  

White Liquidtight	Applications
• Marinas • Dairies • Food Processing	  

Green Liquidtight	Applications
• Health Care • Hospitals	  

Blue Liquidtight	Applications
• Data Centers • OME	  

Brown Liquidtight	Applications
• Office Modules	  

Black Liquidtight	Applications
• Roof Tops • Wind Turbines • Solar	  

Vertical Market/Corresponding Products

AFC Cable Systems manufactures a variety of liquidtight and flexible conduits that are used across a number of diverse markets and applications. The chart below outlines the market segments we serve with the corresponding liquidtight flexible conduit type.

Conduit Type																	
Markets	**Metallic Liquitight**									**Non-Metallic Liquidtight**				**Flexible Metallic Conduit**			
	UL MLT	VF MLT	CB MLT	UL LSZH	VF LSZH	SZ MLT	UL High Temp	Ext. Temp	VF FLEX MLT	UL NMLT-B	SZ NMLT	UL NMLT-A	NMPT	UL RWS	UL RWA	Extra-Flex	Flexcon
Aerospace	▲	▲		▲	▲		▲	▲	▲	▲			▲	▲	▲	▲	▲
Automation/ Robotics	▲	▲							▲	▲		▲		▲	▲	▲	▲
Automotive	▲						▲		▲	▲		▲	▲	▲	▲	▲	▲
Comm/Cell Towers	▲	▲	▲	▲	▲		▲	▲		▲			▲	▲	▲		
Construc-tion	▲	▲	▲	▲		▲	▲			▲				▲	▲		
Data Centers	▲		▲	▲						▲				▲	▲		
Education	▲	▲	▲	▲						▲				▲	▲		
Fixtures/ Furniture	▲	▲		▲	▲					▲				▲	▲	▲	▲
Food/Bev	▲			▲			▲	▲		▲	▲	▲					
Govt/ Military	▲		▲	▲			▲	▲		▲				▲	▲		
Healthcare	▲			▲		▲				▲	▲			▲	▲		
Industrial	▲	▲				▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Marine	▲						▲			▲		▲					
MRO	▲	▲		▲	▲		▲	▲	▲	▲		▲	▲	▲	▲	▲	▲
OEM	▲	▲		▲	▲		▲	▲	▲	▲		▲	▲	▲	▲	▲	▲
Oil & Gas	▲						▲	▲		▲		▲					
Rail & Transit	▲	▲		▲	▲		▲	▲	▲					▲	▲	▲	▲
Renewable Energy	▲	▲					▲	▲		▲			▲	▲	▲	▲	▲
Steel Mills/ Refineries	▲	▲		▲	▲		▲	▲				▲					
Utilities	▲	▲					▲	▲		▲		▲		▲	▲		
Water/ Wastewater	▲	▲					▲	▲		▲		▲		▲	▲		

Contact your AFC representative to determine the best conduit for your application or visit atkore.com/afc

Table of Contents

Product Comparison Chart

Brand	Product	Halogen Free	Oil Resistant	Acid Resistant	Sun Resistant	Direct Burial	Size Range	Working Temperature	Listings	
General Purpose Listed Products										
AFC	UL LFMC		a	a	a	a	⅜" - 4"	-40°C/80°C Dry - 70°C Oil	UL/CSA	Direct burial all sizes
AFC	UL Computer Blue		a	a	a	a	⅜" - 4"	-40°C/75°C Dry - 70°C Oil	UL/CSA	Direct burial all sizes
AFC	CSA LFMC		a	a	a	a	⅜" - 4"	-40°C/75°C Dry - 60°C Oil	CSA	Direct burial all sizes, No Bond Wire
Electri-Flex	LA		a	a	a	a	⅜" - 4"	-30°C/80°C Dry - 70°C Oil	UL/CSA	
Electri-Flex	CSA		a	a	a		⅜" - 4"	-40°C/75°C Dry - NL Oil	CSA	No Bond wire
Electri-Flex	LA/Blu		a	a	a	a	⅜" - 4"	-30°C/80°C Dry - 70°C Oil	UL/CSA	
Anamet	UA		a	a	a	a	⅜" - 4"	-40°C/60°C Dry - 60°C Oil	UL/CSA	
Southwire	UL		a	a	a	a	⅜" - 4"	-50°C/80°C Dry - 60°C Oil	UL/CSA	
Southwire	CB		a	a	a	a	⅜" - 4"	-50°C/80°C Dry - 60°C Oil	UL/CSA	
Splash Zone Products										
AFC/KT	Food Grade		a	a	a		⅜" - 4"	-40°C/80°C Dry - 70°C Oil	UL/CSA	NSF® 169 Component
Electri-Flex	LAFG		a	a			⅜" - 2"	-20°C/60°C Dry - NL Oil	UL	NSF® 169 Component
Anamet	FG						⅜" - 2"	-20°C/60°C Dry - 60°C Oil		NSF® 169 Component
All Temperature Products										
AFC	Hi-Lo Temp		a	a	a	a	⅜" - 4"	-55°C/105°C Dry - 70°C Oil	UL	Direct burial all sizes
Electri-Flex	ATLA		a	a	a	a	⅜" - 4"	-55°C/105°C Dry - 70°C Oil	UL/CSA	
Anamet	HTUA		a	a	Not Listed	a	⅜" - 4"	-46°C/105°C Dry - NL Oil	UL	
Southwire	HC		a	a	a	a	⅜" - 4"	-40°C/105°C Dry - NL Oil		
Low Smoke Zero Halogen Products										
AFC	LSZH	a	a		a	a	⅜" - 4"	-40°C/80°C Dry - 70°C Oil		
AFC	UL LSZH	a	a		a	a	⅜" - 4"	-40°C/80°C Dry - 70°C Oil	UL	
Electri-Flex	ZHLA	a	a		a	a	⅜" - 4"	-40°C/80°C Dry - 70°C Oil	UL	
Anamet	ZHUA	a	a		a	a	⅜" - 4"	-30°C/80°C Dry - 70°C Oil	UL	
Southwire	NH	a	a	a	a		⅜" - 4"	-10°C/80°C Dry - 60°C Oil		

Product Comparison Chart

Brand	Product	Halogen Free	Oil Resistant	Acid Resistant	Sun Resistant	Direct Burial	Size Range	Working Temperature		Listings
Oil Resistant Products										
AFC	High Temp/ OR		a	a	a		⅜" - 4"	-30°C/80°C Dry -70°C Oil		PVC
Electri-Flex	LOR		a	a	a	Not Listed	⅜" - 6"	-20°C/60°C Dry - NL Oil		PVC
Anamet	OR		a	a	a	Not Listed	⅜" - 6"	-23°C/105°C Dry - NL Oil		PVC
Extra Flexible Products										
AFC	Non-UL LFMC		a	a	a		⅜" - 4"	-20°C/60°C Dry - 60°C Oil		
Electri-Flex	LT		a	a	a		⅝" - 6"	-20°C/80°C Dry - NL Oil		
Electri-Flex	EF		a	a	Not Listed		⅜" - 2"	-20°C/80°C Dry - 60°C Oil		
Anamet	EFST		a	a	a		⅜" - 6"	-20°C/60°C Dry - 60°C Oil		
Anamet	LD/EF		a	a	a		⅜" - 2"	-20°C/60°C Dry - 60°C Oil		
Anamet	EF		a	a	a		⅜" - 2"	-20°C/60°C Dry - 60°C Oil		
Southwire	EF		a	a	a		⅜" - 4"	-10°C/60°C Dry - 60°C Oil		
Additional Non-Listed Products										
AFC	LSZH	a	a		a	a	⅜" - 4"	-40°C/80°C Dry - 70°C Oil		TPU
AFC	Extreme Temp	a	a		a	Not Listed	⅜" - 4"	-60°C/150°C Dry - NL Oil		TPE
Electri-Flex	ATX	a	a		a	Not Listed	⅜" - 4"	-60°C/150°C Dry - NL Oil		TPE
Electri-Flex	CEA	a	a		a	Not Listed	⅜" - 6"	-40°C/80°C Dry - NL Oil		TPU

Note: All brand names, product names and trademarks are the property of their respective holders.

For more information on flexible conduit and liquidtight fittings please visit Atkore.com/atce/fittings

UL and CSA Type LFMC 6200 Series

Scope
This specification covers AFC Cable Systems, Inc. UL LIQUID-TUFF™ 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 80°C (176°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 in either earth or concrete encasement, outdoor use and sunlight resistance. In addition, the product is CSA certified for use at 75°C (167°F) in dry and oily locations and for minus -30°C (22°F) low-temperature applications. This Liquidtight Flexible Steel Conduit is manufactured and tested in accordance with Underwriters Laboratories Inc. Standard UL 360 and CSA Group Standard CSA C22.2 Number 56. The product carries the UL Listing Mark and the CSA Certification Mark.

Construction
The Type LFMC (UL) Liquidtight Flexible Steel Conduit shall be formed from a zinc-coated galvanized low carbon steel strip having a uniform width and thickness. The ⅜–1¼ Trade Sizes are manufactured with a square-lock profile that contains a continuous bonding strip. The 1½–4 Trade Sizes are manufactured with a fully interlocked “S” profile without a bonding strip. The construction shall be in accordance with UL 360 and CSA C22.2 Number 56 requirements. The finished Type LFMC dimensions shall be in accordance with Table 5.1 of UL 360 and Table 2 of CSA C22.2 No. 56 which are summarized in Table 1.

Grounding
Permanent circuit ground protection is provided through the continuous bonding strip built into the conduit core in sizes ⅜–1¼. A separate grounding conductor is required by the NEC® for trade sizes 1½ and larger. The Canadian Electric Code requires a grounding conductor for all trade sizes of Liquidtight Flexible Steel Conduit.

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 4.1 of UL 360 and Table 4 of CSA C22.2 No.56 which are summarized in Table 1. Jacket Color: Gray, Black, Red, Orange, Yellow, or Green

Markings
The surface of the outer jacket shall be clearly marked with a legible print legend in compliance with UL 360, and CSA C22.2 No. 56.

Performance Tests
In accordance with UL 360 and CSA C22.2 No. 56, the completed UL LIQUID-TUFF™ Liquidtight Flexible Steel Conduit shall meet all of the performance requirements outlined in Appendix A.

Description
- UL bonding strip ⅜–1¼ for grounding
- UL Liquidtight all sizes
- Sunlight resistant
- Flame retardant PVC jacket
- Hot dipped zinc galvanized low carbon steel core
- Available in Gray, Black, Red, Orange, Yellow or Green. Specialty colors available upon request
- Available with FT-4 PVC upon request

Temperature Rating
- 80°C/176°F Dry
- 60°C/140°F Wet
- 70°C/158°F Oil
- UL Listed for -40C/-40F Low-temperature

Applications
Suitable for use in:
- NEC® 350 Liquidtight Flexible Metal Conduit Type LFMC
- Wet Locations
- Direct Burial in earth
- Concrete Embedment
- Exposure to Sunlight and Weather
- Grounding in ⅜–1¼ trade sizes per NEC® 250.118(6)
- Flexible Connections in Hazardous Locations: Class I Div 2 NEC® 501.10(B)(2)(4), Class II Div 1 NEC® 502.10(A)(2)(2), Class II Div 2 NEC® 502.10(B)(2), Class III Div 1 NEC® 503.10(A)(3)(2) and Class III Div 2 NEC® 503.10(B).
- Raised Computer Room Floors per NEC® 645.5(E)(1)(b)(11)
- Service Entrance Wiring up to 6 feet per NEC® 230.43(15)
- Marinas and Boatyards per NEC® 555.34(A)(1)
- Electric signs and Outdoor Lighting per NEC® 600.31(A) and 600.32(A)(1)
- Flexible Connections for hoists and cranes per NEC® 610.11(C)
- Wiring Elevators, Dumbwaiters, Escalators, Moving Walks, Platforms and Stairway Chairlifts per NEC® 620.21
- Motors for Permanently Installed Pools where Flexible Connections are required per NEC® 680.21(A)(2)
- Spas and Hot Tubs where Flexible Connections are required per NEC® 680.42(A)(1)
- Feeders for Natural and Artificially Made Bodies of Water where Flexible Connections are required per NEC® 682.13
- Solar Photovoltaic (PV) Systems per NEC® 690.31(A)
- Fire Pump Wiring per NEC® 695.6(D)
- Electric Fire Pump Control Wiring per NEC® 695.14(E)

References & Ratings
- Underwriters Laboratories Inc.:
  Standard: UL 360
  File: E26540
- CSA Group:
  Standard: C22.2 No. 56
  File: 51593
- NFPA 70:
  NEC® Article 350
- Canadian Electric Code (CEC) Part I Clause 12-1300
- UL Listed in all Trade Sizes for Direct Burial which includes Concrete Encasement
- Conduit in Trade Sizes 1½ and larger require an equipment grounding conductor per NEC® 350.60

6200 Series Product Information

Table 1									
Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size (in)	Metric Designator	Coil Length (ft)	Reel Length (ft)	Approx. Weight 100 feet (lbs)	Min. Average Thickness of Jacket (in)	Internal Diameter (min/max) (in)	Over Jacket (min/max) (in)	Bend Radius (in)
Gray									
6201-30-00	3/8	12	100	–	24	0.03	0.484 / 0.504	0.690 / 0.710	2
6201-45-00	3/8	12	–	500	24	0.03	0.484 / 0.504	0.690 / 0.710	2
6201-60-00	3/8	12	–	1000	24	0.03	0.484 / 0.504	0.690 / 0.710	2
6201-65-00	3/8	12	–	2500	24	0.03	0.484 / 0.504	0.690 / 0.710	2
6202-30-00	1/2	16	100	–	31	0.03	0.622 / 0.642	0.820 / 0.840	3.25
6202-45-00	1/2	16	–	500	31	0.03	0.622 / 0.642	0.820 / 0.840	3.25
6202-60-00	1/2	16	–	1000	31	0.03	0.622 / 0.642	0.820 / 0.840	3.25
6202-68-00	1/2	16	–	3500	31	0.03	0.622 / 0.642	0.820 / 0.840	3.25
6203-30-00	3/4	21	100	–	49	0.035	0.820 / 0.840	1.030 / 1.050	4.25
6203-45-00	3/4	21	–	500	49	0.035	0.820 / 0.840	1.030 / 1.050	4.25
6203-60-00	3/4	21	–	1000	49	0.035	0.820 / 0.840	1.030 / 1.050	4.25
6203-66-00	3/4	21	–	2000	49	0.035	0.820 / 0.840	1.030 / 1.050	4.25
6204-30-00	1	27	100	–	79	0.035	1.041 / 1.066	1.290 / 1.315	6.5
6204-41-00	1	27	–	400	79	0.035	1.041 / 1.066	1.290 / 1.315	6.5
6204-64-00	1	27	–	1250	79	0.035	1.041 / 1.066	1.290 / 1.315	6.5
6205-24-00	11/4	35	50	–	103	0.035	1.380 / 1.410	1.630 / 1.660	8
6205-40-00	11/4	35	–	200	103	0.035	1.380 / 1.410	1.630 / 1.660	8
6205-47-00	11/2	35	–	750	103	0.035	1.380 / 1.410	1.630 / 1.660	8
6206-24-00	11/2	41	50	–	109	0.04	1.575 / 1.600	1.865 / 1.900	9
6206-35-00	11/2	41	–	150	109	0.04	1.575 / 1.600	1.865 / 1.900	9
6206-62-00	11/2	41	–	600	109	0.04	1.575 / 1.600	1.865 / 1.900	9
6207-24-00	2	53	50	–	146	0.04	2.020 / 2.045	2.340 / 2.375	11.12
6207-30-00	2	53	–	100	146	0.04	2.020 / 2.045	2.340 / 2.375	11.12
6207-80-00	2	53	–	300	146	0.04	2.020 / 2.045	2.340 / 2.375	11.12
6208-22-00	21/2	63	25	–	169	0.05	2.480 / 2.505	2.840 / 2.875	14.62
6208-79-00	21/2	63	–	275	169	0.05	2.480 / 2.505	2.840 / 2.875	14.62
6209-22-00	3	78	25	–	195	0.05	3.070 / 3.100	3.460 / 3.500	17.5
6209-56-00	3	78	–	175	195	0.05	3.070 / 3.100	3.460 / 3.500	17.5
6220-22-00	31/2	91	25	–	230	0.06	3.500 / 3.540	3.960 / 4.000	20
6220-56-00	31/2	91	–	175	230	0.06	3.500 / 3.540	3.960 / 4.000	20
6210-22-00	4	103	25	–	250	0.06	4.000 / 4.040	4.460 / 4.500	24
6210-30-00	4	103	–	100	250	0.06	4.000 / 4.040	4.460 / 4.500	24

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.
Review NEC® 350.60 and 250.118(6) for grounding requirements.
Made in USA of US and/or imported materials.

6200 Series Product Information

Table 1									
Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size (in)	Metric Designator	Coil Length (ft)	Reel Length (ft)	Approx. Weight 100 feet (lbs)	Min. Average Thickness of Jacket (in)	Internal Diameter (min/max) (in)	Over Jacket (min/max) (in)	Bend Radius (in)
Black									
6201-30-BK	3/8	12	100	–	24	0.03	0.484/0.504	0.690/0.710	2
6202-30-BK	1/2	16	100	–	31	0.03	0.622/0.642	0.820/0.840	3.25
6202-45-BK	1/2	16	–	500	31	0.03	0.622/0.642	0.820/0.840	3.25
6202-60-BK	1/2	16	–	1000	31	0.03	0.622/0.642	0.820/0.840	3.25
6203-30-BK	3/4	21	100	–	49	0.035	0.820/0.840	1.030/1.050	4.25
6203-45-BK	3/4	21	–	500	49	0.035	0.820/0.840	1.030/1.050	4.25
6203-60-BK	3/4	21	–	1000	49	0.035	0.820/0.840	1.030/1.050	4.25
6204-30-BK	1	27	100	–	79	0.035	1.041/1.066	1.290/1.315	6.5
6204-80-BK	1	27	–	400	79	0.035	1.041/1.066	1.290/1.315	6.5
6205-24-BK	1 1/4	35	50	–	103	0.035	1.380/1.410	1.630/1.660	8
6205-40-BK	1 1/4	35	–	200	103	0.035	1.380/1.410	1.630/1.660	8
6206-24-BK*	1 1/2	41	50	–	109	0.04	1.575/1.600	1.865/1.900	9
6206-35-BK*	1 1/2	41	–	150	109	0.04	1.575/1.600	1.865/1.900	9
6207-30-BK*	2	53	–	100	146	0.04	2.020/2.045	2.340/2.375	11.12
NOTE: All dimensions and weights are subject to normal manufacturing tolerances. Review NEC® 350.60 and 250.118(6) for grounding requirements, conduit sizes 1½" and larger.									
Red*									
6202-30-RD	1/2	16	100	–	31	0.03	0.622/0.642	0.820/0.840	3.25
6202-60-RD	1/2	16	–	1000	31	0.03	0.622/0.642	0.820/0.840	3.25
6203-30-RD	3/4	21	100	–	49	0.03	0.820/0.840	1.030/1.050	4.25
6203-45-RD	3/4	21	–	500	49	0.03	0.820/0.840	1.030/1.050	4.25
Orange*									
6202-30-OE	1/2	16	100	–	31	0.03	0.622/0.642	0.820/0.840	3.25
6202-60-OE	1/2	16	–	1000	31	0.03	0.622/0.642	0.820/0.840	3.25
6203-30-OE	3/4	21	100	–	49	0.03	0.820/0.840	1.030/1.050	4.25
6203-45-OE	3/4	21	–	500	49	0.03	0.820/0.840	1.030/1.050	4.25
Yellow*									
6202-30-YW	1/2	16	100	–	31	0.03	0.622/0.642	0.820/0.840	3.25
6202-60-YW	1/2	16	–	1000	31	0.03	0.622/0.642	0.820/0.840	3.25
6203-30-YW	3/4	21	100	–	49	0.03	0.820/0.840	1.030/1.050	4.25
6203-45-YW	3/4	21	–	500	49	0.03	0.820/0.840	1.030/1.050	4.25
Green*									
6202-30-GN	1/2	16	100	–	31	0.03	0.622/0.642	0.820/0.840	3.25
6202-60-GN	1/2	16	–	1000	31	0.03	0.622/0.642	0.820/0.840	3.25
6203-30-GN	3/4	21	100	–	49	0.03	0.820/0.840	1.030/1.050	4.25
6203-45-GN	3/4	21	–	500 †	49	0.03	0.820/0.840	1.030/1.050	4.25

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. Made in USA of US and/or imported materials.
Review NEC® 350.60 and 250.118(6) for grounding requirements.
†¾" available on 1000' reels. Call for details.
*** Minimum order quantity required.**

6200 Series Product Standards

Appendix A	
UL Performance Tests	**CSA Performance Tests**
UL 360 Standard	**CSA C22.2 NO. 56 STANDARD**
Resistance Test	-
Fault Current	-
Impact	-
-	Cold Impact
Tension	Tension
Crushing	-
Pipe Stiffness For Direct Burial	-
Room Temperature Flexibility	-
Low-Temperature Flexibility	Low-Temperature Flexibility
Zinc Coating	Zinc Coating
Vertical Flame	Vertical Flame
Physical Properties Of Jacket	Physical Properties Of Jacket
Original Tensile And Elongation	Original Tensile And Elongation
Air Oven Aging Tests	Air Oven Aging Tests
Oil Immersion In Air Oven Tests	Oil Immersion In Air Oven Tests
Deformation Test	Deformation Test
Mechanical Water Absorption	-
Moisture Penetration	-
Sunlight Resistance	-
Test For Secureness Of Fittings	Compatibility With Connectors
Test For Durability Of Ink Printing	-
-	Pinhole Test

Reference Standards	
UL 360	Standard for Liquidtight Flexible Metal Conduit
CSA C22.2 No. 56	Standard for Flexible Metal Conduit and Liquidtight Flexible Metal Conduit
UL 514B	Standard for Conduit, Tubing and Cable Fittings
NFPA 70	National Electric Code (NEC®) Articles 250, 350, 390, 501, 502, 503, 504, 511, 620, 645, 680 and 690
NEMA RV 3	Application and Installation Guidelines for Flexible and Liquidtight Flexible Metal Conduits
Department of Defense Adopted UL 360 on October 1, 1987	

UL and CSA Type LFMC 6400 Series

Scope
This specification covers AFC Cable Systems, Inc. UL LIQUID-TUFF™ Computer Blue 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 80°C (176°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 in either earth or concrete encasement, outdoor use and sunlight resistance. In addition, the product is CSA certified for use at 75°C (167°F) in dry and oily locations and for minus -30°C (22°F) low-temperature applications. This Liquidtight Flexible Steel Conduit is manufactured and tested in accordance with Underwriters Laboratories Inc. Standard UL 360 and CSA Group Standard CSA C22.2 Number 56. The product carries the UL Listing Mark and the CSA Certification Mark.

Construction
The Type LFMC (UL) Liquidtight Flexible Steel Conduit shall be formed from a zinc-coated galvanized low carbon steel strip having a uniform width and thickness. The ⅜–1¼ Trade Sizes are manufactured with a square-lock profile that contains a continuous bonding strip. The 1½–4 Trade Sizes are manufactured with a fully interlocked "S" profile without a bonding strip. The construction shall be in accordance with UL 360 and CSA C22.2 Number 56 requirements. The finished Type LFMC dimensions shall be in accordance with Table 5.1 of UL 360 and Table 2 of CSA C22.2 No. 56 which are summarized in Table 1.

Jacket - PVC
A rugged moisture, oil and sunlight resistant polyvinyl chloride (PVC-colored Blue) jacket shall be applied directly over the flexible metal conduit with a Jacket in accordance with Table 4.1 of UL 360 and Table 4 of CSA C22.2 No. 56 which are summarized in Table 1. Jacket: Blue

Grounding
Permanent circuit ground protection is provided through the continuous bonding strip built into the conduit core in sizes ⅜–1¼. A separate grounding conductor is required by the NEC® for trade sizes 1½ and larger. The Canadian Electric Code requires a grounding conductor for all trade sizes of Liquidtight Flexible Metal Computer Blue Conduit.

Markings
The surface of the outer jacket shall be clearly marked with a legible print legend in compliance with UL 360 and CSA C22.2 No. 56.

Performance Tests
In accordance with UL 360 and CSA C22.2 No. 56, the completed UL LIQUID-TUFF™ Computer Blue Liquidtight Flexible Steel Conduit shall meet all of the performance requirements outlined in Appendix A.

Description
- UL bonding strip ⅜–1¼ for grounding
- UL Liquidtight all sizes
- Sunlight resistant
- Flame retardant PVC jacket
- Hot dipped zinc galvanized low carbon steel core
- Blue PVC jacket
- Temperature Rating
- 80°C (176°F) Dry
- 60°C (140°F) Wet
- 70°C (158°F) Oil
- UL Listed for -40C/-40F Low-Temperature

Applications
- Suitable for use in:
- NEC® 350 Liquidtight Flexible Metal Conduit Type LFMC
- Wet Locations
- Direct Burial in earth
- Concrete Embedment
- Exposure to Sunlight and Weather
- Grounding in ⅜–1¼ trade sizes per NEC® 250.118(6)
- Flexible Connections in Hazardous Locations: Class I Div 2 NEC® 501.10(B)(2)(4), Class II Div 1 NEC® 502.10(A)(2)(2), Class II Div 2 NEC® 502.10(B)(2), Class III Div 1 NEC® 503.10(A)(3)(2) and Class III Div 2 NEC® 503.10(B).
- Raised Computer Room Floors per NEC® 645.5(E)(1)(b)(11)
- Service Entrance Wiring up to 6 feet per NEC® 230.43(15)
- Marinas and Boatyards per NEC® 555.34(A)(1)
- Electric signs and Outdoor Lighting per NEC® 600.31(A) and 600.32(A)(1)
- Flexible Connections for hoists and cranes per NEC® 610.11(C)
- Wiring Elevators, Dumbwaiters, Escalators, Moving Walks, Platforms and Stairway Chairlifts per NEC® 620.21
- Motors for Permanently Installed Pools where Flexible Connections are required per NEC® 680.21(A)(2)
- Spas and Hot Tubs where Flexible Connections are required per NEC® 680.42(A)(1)
- Feeders for Natural and Artificially Made Bodies of Water where Flexible Connections are required per NEC® 682.13
- Solar Photovoltaic (PV) Systems per NEC® 690.31(A)
- Fire Pump Wiring per NEC® 695.6(D)
- Electric Fire Pump Control Wiring per NEC® 695.14(E)

References & Ratings
- Underwriters Laboratories Inc.:
  - Standard: UL 360
  - File: E26540
- CSA Group:
  - Standard: C22.2 No. 56
  - File: 51593
- NFPA 70:
  - NEC® Article 350
- Canadian Electric Code (CEC) Part I Clause 12-1300
- UL Listed in all Trade Sizes for Direct Burial which includes Concrete Encasement
- Conduit in Trade Sizes 1½ and larger require an equipment grounding conductor per NEC® 350.60

6400 Series Product Information

Table 1									
Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size (in)	Metric Designator	Coil Length (ft)	Reel Length (ft)	Approx. Weight 100 feet (lbs)	Min. Average Thickness of Jacket (in)	Internal Diameter (min/max) (in)	Over Jacket (min/max) (in)	Bend Radius (in)
6402-30-00	1/2	16	100	–	31	0.03	0.622/0.642	0.820/0.840	3.25
6402-45-00	1/2	16	–	500	31	0.03	0.622/0.642	0.820/0.840	3.25
6402-60-00	1/2	16	–	1000	31	0.03	0.622/0.642	0.820/0.840	3.25
6403-30-00	3/4	21	100	–	49	0.035	0.820/0.840	1.030/1.050	4.25
6403-45-00	3/4	21	–	500	49	0.035	0.820/0.840	1.030/1.050	4.25
6403-66-00	3/4	21	–	2000	49	0.035	0.820/0.840	1.030/1.050	4.25
6404-30-00	1	27	100	–	79	0.035	1.041/1.066	1.290/1.315	6.5
6404-41-00	1	27	–	400	79	0.035	1.041/1.066	1.290/1.315	6.5
6405-24-00	11/4	35	50	–	103	0.035	1.380/1.410	1.630/1.660	8
6405-40-00	11/4	35	–	200	103	0.035	1.380/1.410	1.630/1.660	8
6406-24-00	11/2	41	50	–	90	0.04	1.575/1.600	1.865/1.900	9
6406-35-00	11/2	41	–	150	90	0.04	1.575/1.600	1.865/1.900	9
6407-24-00	2	53	50	–	120	0.04	2.020/2.045	2.340/2.375	11.12
6407-30-00	2	53	–	100	120	0.04	2.020/2.045	2.340/2.375	11.12
6408-22-00	21/2	63	25	–	121	0.05	2.480/2.505	2.840/2.875	14.62
6408-79-00	21/2	63	–	275	121	0.05	2.480/2.505	2.840/2.875	14.62
6409-22-00	3	78	25	–	145	0.05	3.070/3.100	3.460/3.500	17.5
6409-56-00	3	78	–	175	145	0.05	3.070/3.100	3.460/3.500	17.5

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. Review NEC® 350.60 and 250.118(6) for grounding requirements.

6400 Series Product Standards

Appendix A	
UL Performance Tests	**CSA Performance Tests**
UL 360 Standard	**CSA C22.2 NO. 56 STANDARD**
Resistance Test	-
Fault Current	-
Impact	-
	Cold Impact
Tension	Tension
Crushing	-
Pipe Stiffness For Direct Burial	-
Room Temperature Flexibility	-
Low-Temperature Flexibility	Low-Temperature Flexibility
Zinc Coating	Zinc Coating
Vertical Flame	Vertical Flame
Physical Properties Of Jacket	Physical Properties Of Jacket
Original Tensile And Elongation	Original Tensile And Elongation
Air Oven Aging Tests	Air Oven Aging Tests
Oil Immersion In Air Oven Tests	Oil Immersion In Air Oven Tests
Deformation Test	Deformation Test
Mechanical Water Absorption	-
Moisture Penetration	-
Sunlight Resistance	-
Test For Secureness Of Fittings	Compatibility With Connectors
Test For Durability Of Ink Printing	-
	Pinhole Test

Reference Standards	
UL 360	Standard for Liquidtight Flexible Metal Conduit
CSA C22.2 No. 56	Standard for Flexible Metal Conduit and Liquidtight Flexible Metal Conduit
UL 514B	Standard for Conduit, Tubing and Cable Fittings
NFPA 70	National Electric Code (NEC®) Articles 250, 350, 390, 501, 502, 503, 504, 511, 620, 645, 680 and 690
NEMA RV 3	Application and Installation Guidelines for Flexible and Liquidtight Flexible Metal Conduits

Scope
This specification covers AFC Cable Systems, Inc. LIQUID-TUFF™ Liquidtight, Flexible Steel Conduit, VF designed for use in specific applications where Underwriters Laboratories Inc. (UL) or other agency approvals are not required, but when flexibility is required. The product is appropriate for use at 60°C (140°F) in a dry location, 60°C in a wet location or 60°C in an oily location. SUNLIGHT RESISTANT in all trade sizes. The product has no agency listing or certification.

Construction
The LIQUID-TUFF™ Liquidtight, Flexible Steel Conduit, VF core shall be formed into an 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 - PVC
A rugged moisture, oil and sunlight resistant polyvinyl chloride (PVC) jacket shall be extruded directly over the interlocked flexible steel core with a wall thickness in conformance with Table 1. Jacket: Gray

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

Performance Tests
The completed LIQUID-TUFF™ Liquidtight, Flexible Steel Conduit, VF shall meet all of the performance requirements prescribed by applicable manufacturing standards.

Description
- Mechanical and moisture protection for conductors
- Sunlight resistant
- Flame retardant PVC jacket – Gray
- Hot dipped zinc galvanized low carbon steel core
- Very flexible

Temperature Rating
- 60°C (140°F) Dry
- 60°C (140°F) Wet
- 60°C (140°F) Oil Resistant
- -20°C (-4°F) Low-Temperature

Applications
- 600 volts and lower circuits
- Vibration and movement absorbing
- Made in USA of US and/or imported materials

6100 Series Product Information

Table 1									
Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size (in)	Metric Designator	Coil Length (ft)	Reel Length (ft)	Approx. Weight 100 feet (lbs)	Min. Average Thickness of Jacket (in)	Internal Diameter (min/max) (in)	Over Jacket (min/max) (in)	Bend Radius (in)
6101-30-00	3/8	12	100'	–	22	0.69	0.71	0.484/0.504	2
6101-45-00	3/8	12	–	500	22	0.69	0.71	0.484/0.504	2
6101-60-00	3/8	12	–	1000	22	0.69	0.71	0.484/0.504	2
6101-65-00	3/8	12	–	2500	22	0.69	0.71	0.484/0.504	2
6102-30-00	1/2	16	100'	–	26	0.82	0.84	0.622/0.642	3.25
6102-45-00	1/2	16	–	500	26	0.82	0.84	0.622/0.642	3.25
6102-60-00	1/2	16	–	1000	26	0.82	0.84	0.622/0.642	3.25
6102-68-00	3/4	16	–	3500	26	0.82	0.84	0.622/0.642	3.25
6103-30-00	3/4	21	100'	–	33	1.03	1.05	0.820/0.840	4.25
6103-45-00	3/4	21	–	500	33	1.03	1.05	0.820/0.840	4.25
6103-60-00	3/4	21	–	1000	33	1.03	1.05	0.820/0.840	4.25
6103-66-00	1	21	–	2000	33	1.03	1.05	0.820/0.840	4.25
6104-30-00	1	27	100'	–	45	1.29	1.315	1.041/1.066	6.5
6104-41-00	11/4	27	–	400	45	1.29	1.315	1.041/1.066	6.5
6105-24-00	11/4	35	50'	–	60	1.63	1.66	1.380/1.410	8
6105-40-00	11/4	35	–	200	60	1.63	1.66	1.380/1.410	8
6105-47-00	1 1/2	35	–	750	60	1.63	1.66	1.380/1.410	8
6106-24-00	1 1/2	41	50'	–	90	1.865	1.9	1.575/1.600	9
6106-35-00	1 1/2	41	–	150	90	1.865	1.9	1.575/1.600	9
6106-62-00	2	41	–	600	90	1.865	1.9	1.575/1.600	9
6107-24-00	2	53	50'	–	120	2.34	2.375	2.020/2.045	11.12
6107-30-00	2	53	–	100	120	2.34	2.375	2.020/2.045	11.12
6107-80-00	2 1/2	53	–	300	120	2.34	2.375	2.020/2.045	11.12
6108-22-00	2 1/2	63	25'	–	121	2.84	2.875	2.480/2.505	14.62
6108-79-00	3	63	–	275	121	2.84	2.875	2.480/2.505	14.62
6109-22-00	3	78	25'	–	145	3.46	3.5	3.070/3.100	17.5
6109-56-00	3 1/2	78	–	175	145	3.46	3.5	3.070/3.100	17.5
6120-22-00	3 1/2	91	25'	–	200	3.96	4	3.500/3.540	20
6120-56-00	4	91	–	175	200	3.96	4	3.500/3.540	20
6110-22-00	4	103	25'	–	250	4.46	4.5	4.000/4.040	24
6110-30-00	4	103	–	100	250	4.46	4.5	4.000/4.040	24

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

UL and CSA Low Smoke Zero Halogen Type LMFC 6700 Series

Scope
This specification covers AFC Cable Systems, Inc. LIQUID-TUFF™ LOW SMOKE ZERO HALOGEN (LSZH) UL Liquidtight Flexible Metal Conduit designed for use as a raceway for power, control and communication cables in accordance with Article 350 of the National Electric Code. The product is intended for applications where limiting smoke and toxic materials of combustion are important considerations. The product is Underwriters Laboratories Inc. (UL) Listed for use at 80°C (176°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 for direct burial, outdoor use, sunlight resistance and for -40°C (-40°F) low-temperature applications. In addition, the product is CSA certified for use at 75°C (167°F) in dry and oily locations and for minus -40°C (-40°F) low-temperature applications. This Liquidtight Flexible Steel Conduit is manufactured and tested in accordance with Underwriters Laboratories Inc. Standard UL 360 and CSA Group Standard CSA C22.2 Number 56. The product carries the UL Listing Mark and the CSA Certification Mark. Underwriters Laboratories Inc. does not list any manufacturer's Liquidtight Flexible Metal Conduit as being low smoke zero halogen.

Construction
The LIQUID-TUFF™ LSZH Liquidtight Flexible Metal Conduit shall be formed from zinc-coated galvanized low carbon steel strip having a uniform width and thickness. There shall be a continuous bonding strip built into the conduit core for the ⅜–1¼ trade sizes. The construction shall be in accordance with UL 360 and CSA C22.2 Number 56 requirements. The finished LIQUID-TUFF™ LSZH Liquidtight Flexible Metal Conduit Type LFMC dimensions shall be in accordance with Table 5.1 of UL 360 and Table 2 of CSA C22.2 No. 56 which is summarized in Table 1.
CSA Certification pending

Jacket - TPU
A rugged low-smoke, moisture, oil, sunlight resistant and flame retardant thermoplastic polyurethane jacket shall be applied directly over the flexible metal conduit. The physical properties of the jacket material shall comply with the UL 360 Standard. The Low Smoke Zero Halogen jacket shall be tested to and comply with ASTM® E162 – Flame Spread Index, ASTM® E662 – Smoke Density Generation and Bombardier SMP-800C – Toxic Gas Generation. The test results are summarized in Table 2. Underwriters Laboratories Inc. (UL) does not list any manufacturer's jacket compound as being low smoke zero halogen. The jacket wall thickness shall be in accordance with Table 4.1 of UL 360 and Table 4 of CSA C22.2 No.56 which is summarized in Table 1. Jacket: Black.

Grounding
Permanent circuit ground protection is provided through the continuous bonding strip built into the conduit core in trade sizes ⅜–1¼. A separate grounding conductor is required by the NEC® for all trade sizes 1½ and larger. The Canadian Electric Code requires a grounding conductor for all trade sizes of Liquidtight Flexible Steel Conduit.

Markings
The surface of the outer jacket shall be clearly marked with a legible print legend in compliance with the UL 360 Standard and CSA C22.2 No. 56.

Performance Tests
In accordance with UL 360 and CSA C22.2 No. 56, the completed UL LIQUID-TUFF™ LSZH Liquidtight Flexible Steel Conduit shall meet all of the performance requirements outlined in Appendix A.

Description
- Low smoke, zero halogen raceway
- Low toxicity generation characteristics
- Hot dipped zinc galvanized low carbon steel core
- Excellent temperature ratings
- Black thermoplastic polyurethane jacket
- UL bonding strip ⅜–1¼ for grounding
- Sunlight resistant
- Flame retardant TPU jacket

Temperature Rating
- 80°C (176°F) Dry
- 60°C (140°F) Wet
- 70°C (158°F) Oil Resistant
- -40°C (-40°F) Low-Temperature

Applications
Suitable for use in:
- NEC® 350 Liquidtight Flexible Metal Conduit Type LFMC
- Wet Locations
- Direct Burial in earth
- Concrete Embedment
- Exposure to Sunlight and Weather
- Grounding in ⅜–1¼ trade sizes per NEC® 250.118(6)
- Service Entrance Wiring up to 6 feet per NEC® 230.43(15)
- Connections to Cabinets and Wall Outlets in Underfloor Raceways per NEC® 390.15
- Cable Trays per NEC® 392.10(A) and Table 392.10(A) Wiring Methods
- Flexible Connections in Hazardous Locations: Class I Div 2 NEC® 501.10(B)(2)(4), Class II Div 1 NEC® 502.10(A)(2)(2), Class II Div 2 NEC® 502.10(B)(2), Class III Div 1 NEC® 503.10(A)(3)(2) and Class III Div 2 NEC® 503.10(B)
- Wiring in Spaces Above Class I Locations per NEC® 511.7(A)(1)
- Raised Computer Room Floors per NEC® 645.5(E)(1)(b)(11)
- Feeders and services where flexible connections are required in Floating Buildings per NEC® 553.7(B)
- Marinas and Boatyards per NEC® 555.34(A)(1)
- Electric Signs and Outdoor Lighting per NEC® 600.31(A) and 600.32(A)(1)
- Flexible Connections for hoists and cranes per NEC® 610.11(C)
- Wiring Elevators, Dumbwaiters, Escalators, Moving Walks, Platforms and Stairway Chairlifts per NEC® 620.21
- Motors for Permanently Installed Pools where Flexible Connections are required per NEC® 680.21(A)(2)

6700 Series Product Information

References & Ratings

- Underwriters Laboratories Inc.:
  Standard: UL 360
  File: E26540
- CSA Group:
  Standard: C22.2 No. 56
  Master Contract
  No. 157782
- NFPA 70:
  NEC® Article 350
- UL Listed in all Trade Sizes for Direct Burial which includes Concrete Encasement
- Conduit in Trade Sizes 1 ½ and larger require an equipment grounding conductor per NEC® 350.60
- Compound meets UL 94 with a V-0 Rating and No Flaming Drips
- Meets the requirements of the UL 360 Vertical Flame Test
- Meets the requirements of ASTM® E 162 Flame Spread Index passing with No Flaming Drips
- Meets the requirements of ASTM® E 662 Flaming and Non-Flaming Smoke Generation passing with No Flaming Drips
- Meets Bombardier SMP-800C requirements for Toxic Gas Generation

Reference Standards	
UL 360	Standard for Liquidtight Flexible Metal Conduit
CSA C22.2 No. 56	Standard for Flexible Metal Conduit and Liquidtight Flexible Metal Conduit
UL 514B	Standard for Conduit, Tubing and Cable Fittings
UL 94	Standard Tests for Flammability of Plastic Materials for Parts in Devices and Appliances
NFPA 70	National Electric Code (NEC®) Articles 250, 230, 350, 390, 392, 501, 502, 503, 511, 553, 555, 600, 610, 620, 645, 680, 682, 690 and 695
NEMA RV 3	Application and Installation Guidelines for Flexible and Liquidtight Flexible Metal Conduits
ASTM® E162	Standard Test Method for Surface Flammability
ASTM® E 662	Standard Test Method for Specific Optical Density
SMP 800-C	Bombardier Toxic Gas Generation

CSA Certification pending

Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size (in)	Metric Designator	Coil Length (ft)	Reel Length (ft)	Approx. Weight 100 feet (lbs)	Min. Average Thickness of Jacket (in)	Internal Diameter (min/max) (in)	Over Jacket (min/max) (in)	Bend Radius (in)
6701-30-00	3/8	12	100	–	24	0.03	0.484/0.504	0.690/0.710	2
6702-30-00	1/2	16	100	–	31	0.03	0.622/0.642	0.820/0.840	3.25
6702-45-00	1/2	16	–	500	31	0.03	0.622/0.642	0.820/0.840	3.25
6702-60-00	1/2	16	–	1000	31	0.03	0.622/0.642	0.820/0.840	3.25
6703-30-00	3/4	21	100	–	47	0.035	0.820/0.840	1.030/1.050	4.25
6703-45-00	3/4	21	–	500	47	0.035	0.820/0.840	1.030/1.050	4.25
6703-60-00	3/4	21	–	1000	47	0.035	0.820/0.840	1.030/1.050	4.25
6704-30-00	1	27	100	–	78	0.035	1.041/1.066	1.290/1.315	6.5
6704-41-00	1	27	–	400	78	0.035	1.041/1.066	1.290/1.315	6.5
6705-24-00	1 1/4	35	50	–	102	0.035	1.380/1.410	1.630/1.660	8
6705-40-00	1 1/4	35	–	200	102	0.035	1.380/1.410	1.630/1.660	8
6706-24-00	1 1/2	41	50	–	107	0.04	1.575/1.600	1.865/1.900	9
6707-24-00	2	53	50	–	144	0.04	2.020/2.045	2.340/2.375	11.12

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. Not listed for grounding.
Larger trade sizes and other colors are available. Please inquire.

6700 Series Product Standards

LIQUID-TUFF™ LSZH Combustion and Flammability Properties		
Property	**Test**	**Results**
Vertical Burn (Material)	UL 94	UL Listed: V-O Rating No Flaming Drips
Vertical Burn (Conduit)	UL 360	UL Listed: Passed
Oxygen Index % (Material)	ASTM® D 2863	25%
Flame Spread Index	ASTM® E-162	Passed No Flaming Drips
Smoke Generation (Flaming)	ASTM® E662 (NFPA-258)	Ds=13 @ 1.5 min Ds=57 @ 4.0 min No Flaming Drips
Smoke Generation (Non-flaming)	ASTM® E662 (NFPA-258)	Ds=1 @ 1.5 min Ds=8 @ 4.0 min No Flaming Drips
Toxic Gas Generation	Bombardier SMP-800C	Pass

Testing performed by independent test laboratory.
Test results available upon request.

Appendix A	
UL Performance Tests	**CSA Performance Tests**
UL 360 Standard	**CSA C22.2 NO. 56 STANDARD**
Resistance Test	-
Fault Current	-
Impact	-
	Cold Impact
Tension	Tension
Crushing	-
Pipe Stiffness For Direct Burial	Pipe Stiffness For Direct Burial
Room Temperature Flexibility	-
Low-Temperature Flexibility	Low-Temperature Flexibility
Zinc Coating	Zinc Coating
Vertical Flame	Vertical Flame
Physical Properties Of Jacket	Physical Properties Of Jacket
Original Tensile And Elongation	Original Tensile And Elongation
Air Oven Aging Tests	Air Oven Aging Tests
Oil Immersion In Air Oven Tests	Oil Immersion In Air Oven Tests
Deformation Test	Deformation Test
Mechanical Water Absorption	-
Moisture Penetration	-
Sunlight Resistance	-
Test For Secureness Of Fittings	Compatibility With Connectors
Test For Durability Of Ink Printing	-
	Pinhole Test

Non-UL Low Smoke Zero Halogen 6750 Series

Scope
This specification covers AFC Cable Systems, Inc. LIQUID-TUFF™ Non-UL LOW SMOKE ZERO HALOGEN (LSZH) Liquidtight Flexible Metal Conduit designed for use where limiting smoke and toxic materials of combustion are important considerations. The product is intended for use at 80°C (176°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 acceptable for outdoor use at -40°C (-40°F) low temperatures and is sunlight resistant. This Liquidtight Flexible Metal Conduit is manufactured and tested in accordance with generally accepted industry practices. The product is designed to be used for specific applications where Underwriters Laboratories Inc. (UL) or other agency approvals are not required.

Construction
The LIQUID-TUFF™ LSZH Liquidtight Flexible Metal Conduit shall be formed from zinc-coated galvanized low carbon steel strip having a uniform width and thickness. The finished LIQUID-TUFF™ LSZH Liquidtight Flexible Metal Conduit dimensions shall be in accordance with Table 1.

Jacket – TPU
A rugged low-smoke, moisture, oil, sunlight resistant and flame retardant thermoplastic polyurethane jacket shall be applied directly over the flexible metal conduit. The Low Smoke Zero Halogen jacket shall be tested to and comply with ASTM® E162 – Flame Spread Index, ASTM® E662 – Smoke Density Generation and Bombardier SMP-800C – Toxic Gas Generation. The test results are summarized in Table 2. Standard Jacket Color: Black. *Additional colors available upon request.

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 print legend.

Performance Tests
The completed LIQUID-TUFF™ LSZH Non-UL Liquidtight Flexible Metal Conduit shall meet all of the performance requirements outlined in Appendix A.

Description
- Low smoke, zero halogen raceway
- Low toxicity generation characteristics
- Hot dipped zinc galvanized low carbon steel core
- Excellent temperature ratings
- Black thermoplastic polyurethane jacket
- Sunlight resistant
- Flame retardant TPU jacket

Temperature Rating
- 80°C (176°F) Dry
- 60°C (140°F) Wet
- 70°C (158°F) Oil Resistant
- -40 C (40°F) Low-Temperature

Applications
- Wherever limiting toxic material of combustion is needed

References & Ratings
- Non-UL core
- ASTM® E 162 Flame Spread Index
- ASTM® E 662 Smoke Density Generation
- Bombardier SMP-800C Toxic Gas Generation
- UL 94 Tests for Flammability of Plastic Materials for Parts
- Made in USA of US and/or imported materials

Reference Standards	
ASTM® E 162	Flame Spread Index
ASTM® E 662	Smoke Density Generation
Bombardier SMP-800C	Toxic Gas Generation
UL 94	Tests for Flammability of Plastic Materials for Parts

6750 Series Product Information

Table 1									
Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size (in)	Metric Designator	Coil Length (ft)	Reel Length (ft)	Approx. Weight 100 feet (lbs)	Min. Average Thickness of Jacket (in)	Internal Diameter (min/max) (in)	Over Jacket (min/max) (in)	Bend Radius (in)
6751-30-00	3/8	12	100	–	21	0.03	0.484/0.504	0.690/0.710	2
6752-30-00	1/2	16	100	–	25	0.03	0.622/0.642	0.820/0.840	3.25
6752-45-00	1/2	16	–	500	25	0.03	0.622/0.642	0.820/0.840	3.25
6752-60-00	1/2	16	–	1000	25	0.03	0.622/0.642	0.820/0.840	3.25
6753-30-00	3/4	21	100	–	32	0.035	0.820/0.840	1.030/1.050	4.25
6753-45-00	3/4	21	–	500	32	0.035	0.820/0.840	1.030/1.050	4.25
6753-60-00	3/4	21	–	1000	32	0.035	0.820/0.840	1.030/1.050	43.25
6754-30-00	1	27	100	–	43	0.035	1.041/1.066	1.290/1.315	6.5
6754-41-00	1	27	–	400	43	0.035	1.041/1.066	1.290/1.315	6.5
6755-24-00	11/4	35	50	–	57	0.035	1.380/1.410	1.630/1.660	8
6755-40-00	11/4	35	–	200	57	0.35	1.380/1.410	1.630/1.660	8
6756-24-00	1 1/2	41	50	–	85	0.04	1.575/1.600	1.865/1.900	9
6757-24-00	2	53	50	–	112	0.04	2.020/2.045	2.340/2.375	11.12

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

Table 2		
LIQUID-TUFF™ LSZH Combustion and Flammability Properties		
Property	Test	Results
Vertical Burn (Material)	UL 94	UL Listed: V-O Rating No Flaming Drips
Vertical Burn (Conduit)	UL 360	Passed
Oxygen Index % (Material)	ASTM® D 2863	25%
Flame Spread Index	ASTM® E-162	Passed No Flaming Drips
Smoke Generation (Flaming)	ASTM® E662 (NFPA-258)	Ds=13 @ 1.5 min Ds=57 @ 4.0 min No Flaming Drips
Smoke Generation (Non-flaming)	ASTM® E662 (NFPA-258)	Ds=1 @ 1.5 min Ds=8 @ 4.0 min No Flaming Drips
Toxic Gas Generation	Bombardier SMP-800C	Pass

Testing performed by independent test laboratory.
Test results available upon request.

Appendix A	
Performance Tests	
Flexibility	Moisture Penetration
Low-Temperature Flexibility	Mechanical Water Absorption
Vertical Flame	Sunlight Resistance
Physical Properties	Test for Durability of Ink Printing
Deformation	

UL Hi-Low-Temperature 6900 Series

Scope
This specification covers AFC Cable Systems, Inc. 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 LFMC (UL) Liquidtight Flexible Steel Conduit shall be formed from a zinc-coated galvanized low carbon steel strip having a uniform width and thickness. The ⅜–1¼ Trade Sizes are manufactured with square-lock profile that contains a continuous bonding strip. The 1½–4 Trade Sizes are manufactured with a fully interlocked “S” profile without a bonding strip. The construction shall be in accordance with UL 360 and CSA C22.2 Number 56 requirements. The finished Type LFMC dimensions shall be in accordance with Table 5.1 of UL 360 and Table 2 of CSA C22.2 No. 56 which are summarized in Table 1.

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 4.1 of UL 360 which is summarized in Table 1. Jacket: Gray. Additional colors available upon request.

Grounding
Permanent circuit ground protection is provided through the continuous bonding strip built into the conduit core in trade sizes⅜–1¼. A separate grounding conductor is required by the NEC® for trade sizes 1½ 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.

Description
- Superior temperature ratings
- Hot dipped zinc galvanized low carbon steel core
- UL bonding strip ⅜ – 1¼ for grounding
- Sunlight resistant
- Flame retardant PVC jacket – Gray

Temperature Rating
- 105°C (221°F) Dry
- 60°C (140°F) Wet
- 70°C (158°F) Oil Resistant
- -55°C (-67°F) Low-Temperature

Applications
Suitable for use in:
- NEC® 350 Liquidtight Flexible Metal Conduit Type LFMC Machine tool wiring applications
- Wet Locations
- Direct Burial in earth
- Concrete Embedment
- Exposure to Sunlight and Weather
- Installation at low-temperatures
- Grounding in ⅜–1 ¼ trade sizes per NEC® 250.118(6)
- Flexible Connections in Hazardous Locations: Class I Div 2 NEC 501.10(B)(2)(4), Class II Div 1 NEC 502.10(A)(2)(2), Class II Div 2 NEC 502.10(B)(2), Class III Div 1 NEC 503.10(A)(3)(2) and Class III Div 2 NEC 503.10(B).
- Raised Computer Room Floors per NEC 645.5(E)(1)(b)(11)
- Service Entrance Wiring up to 6 feet per NEC 230.43(15)
- Feeders and services where flexible connections are required in Floating Buildings per NEC 553.7(B)
- Marinas and Boatyards per NEC 555.34(A)(1)
- Electric signs and Outdoor Lighting per NEC 600.31(A)(1) and 600.32(A)(1)
- Flexible Connections for hoists and cranes per NEC 610.11(C)
- Wiring Elevators, Dumbwaiters, Escalators, Moving Walks, Platforms and Stairway Chairlifts per NEC 620.21
- Motors for Permanently Installed Pools where Flexible Connections are required per NEC680.21(A)(2)
- Spas and Hot Tubs where Flexible Connections are required per NEC 680.42(A)(1)
- Feeders for Natural and Artificially Made Bodies of Water where Flexible Connections are required per NEC 682.13
- Solar Photovoltaic (PV) Systems per NEC 690.31(A)
- Fire Pump Wiring per NEC 695.6(D)
- Electric Fire Pump Control Wiring per NEC 695.14(E)

Ratings
- Underwriters Laboratories Inc.:
  - Standard: UL 360
  - File: E26540
- UL LISTED for 105°C (221°F)
- UL LISTED for -55°C (67°F)
- NFPA 70:
  - NEC® Article 350
- UL LISTED in all Trade Sizes for DIRECT BURIAL which includes Concrete Encasement
- Conduit in Trade Sizes 1½ and larger require an equipment grounding conductor per NEC 350.60

6900 Series Product Information

Table 1									
Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size (in)	Metric Designator	Coil Length (ft)	Reel Length (ft)	Approx. Weight 100 feet (lbs)	Min. Average Thickness of Jacket (in)	Internal Diameter (min/max) (in)	Over Jacket (min/max) (in)	Bend Radius (in)
6901-30-00	3/8	12	100	–	25	0.03	0.484/0.504	0.690/0.710	2
6902-30-00	1/2	16	100	–	31	0.03	0.622/0.642	0.820/0.840	3.25
6902-45-00	1/2	16	–	500	31	0.03	0.622/0.642	0.820/0.840	3.25
6902-60-00	1/2	16	–	1000	31	0.03	0.622/0.642	0.820/0.840	3.25
6903-30-00	3/4	21	100	–	48	0.035	0.820/0.840	1.030/1.050	4.25
6903-45-00	3/4	21	–	500	48	0.035	0.820/0.840	1.030/1.050	4.25
6903-60-00	3/4	21	–	1000	48	0.035	0.820/0.840	1.030/1.050	4.25
6904-30-00	1	27	100	–	80	0.035	1.041/1.066	1.290/1.315	6.5
6904-41-00	1	27	–	400	80	0.035	1.041/1.066	1.290/1.315	6.5
6905-24-00	1 1/4	35	50	–	105	0.035	1.380/1.410	1.630/1.660	8
6906-24-00	1 1/2	41	50	–	110	0.04	1.575/1.600	1.865/1.900	9
6907-24-00	2	53	50	–	147	0.04	2.020/2.045	2.340/2.375	11.12
6908-22-00	2 1/2	63	25	–	172	0.04	2.480/2.505	2.840/2.875	14.62
6909-22-00	3	78	25	–	200	0.05	3.070/3.100	3.460/3.500	17.5
6910-22-00	3 1/2	91	25	–	235	0.06	3.500/3.540	3.960/4.000	20
6911-22-00	4	103	25	–	256	0.06	4.000/4.040	4.460/4.500	24

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. **Review NEC® 350.60 and 250.118(6) for grounding requirements.**

Reference Standards	
UL 360	Standard for Liquidtight Flexible Metal Conduit
UL 514B	UL Standard for Conduit, Tubing and Cable Fittings
NFPA 70	National Electric Code (NEC) Articles 250, 350, 390, 501, 502, 503, 504, 511, 620, 645, 680 and 690
NEMA RV 3	Application and Installation Guidelines for Flexible and Liquidtight Flexible Metal Conduits

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

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 filed 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

6800 Series Product Information

Table 1									
Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size (in)	Metric Designator	Coil Length (ft)	Reel Length (ft)	Approx. Weight 100 feet (lbs)	Min. Average Thickness of Jacket (in)	Internal Diameter (min/max) (in)	Over Jacket (min/max) (in)	Bend Radius (in)
6801-30-00	3/8	12	100	–	19	0.03	0.484/0.504	0.690/0.710	2
6802-30-00	1/2	16	100	–	23	0.03	0.622/0.642	0.820/0.840	3.25
6802-45-00	1/2	16	–	500	23	0.03	0.622/0.642	0.820/0.840	3.25
6802-60-00	1/2	16	–	1000	23	0.03	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	11/4	35	50	–	52	0.035	1.380/1.410	1.630/1.660	8
6805-40-00	11/4	35	–	200	52	0.035	1.380/1.410	1.630/1.660	8
6806-24-00	1 1/2	41	50	–	81	0.04	1.575/1.600	1.865/1.900	9
6807-24-00	2	53	50	–	106	0.04	2.020/2.045	2.340/2.375	11.12
6808-22-00	2 1/2	63	25	–	108	0.05	2.480/2.505	2.840/2.875	14.62
6809-22-00	3	78	25	–	130	0.05	3.070/3.100	3.460/3.500	17.5
6810-22-00	3 1/2	91	25	–	178	0.06	3.500/3.540	3.960/4.000	20
6811-22-00	4	103	25	–	225	0.06	4.000/4.040	4.460/4.500	24

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

UL and CSA NSF® 169 Component for Splash Zones SZ Series

Scope

This specification covers AFC Cable Systems, Inc. UL Liquid-Tuff™ Liquidtight Flexible Steel Conduit designed for use as a raceway for NSF® 169 Component Special Purpose Food Equipment and Devices, meat packing, restaurants, food processing, poultry packing, pharmaceutical facilities, as well as, power, control and communications cables in accordance with Article 350 of the National Electrical Code. Temperature ranges: 80°C (176°F) Dry, 60°C (140°F) Wet, 70°C (158°F) Oily, -40°C (-40°F) Low-Temperature. PVC jacket designed to inhibit bacteria growth and to withstand 'wash down/splash zones' with bleach agents. This Liquidtight Flexible Steel Conduit is manufactured and tested in accordance with Underwriters Laboratories Inc. Standard UL 360 and carries the UL Listing Mark. It is further certified to NSF® 169 Component, CSA C22.2 Number 56. The product carries the UL Listing Mark, CSA Certification Mark, and NSF® 169 Component Certification Logo.

Construction

The Type LFMC (UL) Liquidtight Flexible Steel Conduit shall be formed from a zinc-coated galvanized low carbon steel strip having a uniform width and thickness. The ⅜–1¼ Trade Sizes are manufactured with square-lock profile that contains a continuous bonding strip. The 1½–4 Trade Sizes are manufactured with a fully interlocked "S" profile without a bonding strip. The construction shall be in accordance with UL 360 and CSA C22.2 Number 56 requirements. The finished Type LFMC dimensions shall be in accordance with Table 5.1 of UL 360 and Table 2 of CSA C22.2 No. 56 which are summarized in Table 1.

Jacket - PVC

White PVC jacket* inhibits bacteria growth. 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. May be cleaned without degradation to the jacket with bleaching agents. Jacket Color: Stocked in white
*Additional colors available upon request

Markings

The surface of the outer jacket shall be clearly marked with a legible print legend in compliance with UL 360, CSA C22.2 No. 56 and NSF® 169 Component.

Performance Tests

In accordance with UL 360 and CSA C 22.2 No. 56, the completed UL Liquid-Tuff Liquidtight Flexible Conduit shall meet all of the performance requirements outlined in Appendix A for Type LFMC.

Description

- NSF® 169 Component for "splash zones" in food production areas
- NSF® 169 Component Special Purpose Food Equipment and Devices
- PVC jacket inhibits bacteria growth – color White
- Ease of cleaning/sterilization using bleach – no degradation of jacket
- Flexible rugged moisture, oil & sunlight resistant PVC jacket
- Hot dipped zinc galvanized low carbon steel core
- Excellent temperature range
- UL bonding strip ⅜–1¼ for grounding

Temperature Rating

- 80°C (176°F) Dry
- 60°C (140°F) Wet
- 70°C (158°F) Oil
- UL Listed for -40°C (-40°F) Low-Temperature

Applications & References

Suitable for use in:

- NEC® 350 Liquidtight Flexible Metal Conduit Type LFMC
- Wet Locations
- Direct Burial in earth
- Concrete Embedment
- Exposure to Sunlight and Weather
- Service Entrance Wiring up to 6 feet per NEC® 230.43(15)
- Grounding in ⅜–1 ¼ trade sizes per NEC® 250.118(6)
- Connections to Cabinets and Wall Outlets in Underfloor Raceways per NEC® 390.15
- Cable Trays per NEC® 392.10(A) and Table 392.10(A) Wiring Methods
- Flexible Connections in Hazardous Locations: Class I Div 2 NEC® 501.10(B)(2)(4), Class II Div 1 NEC® 502.10(A)(2)(2), Class II Div 2 NEC® 502.10(B)(2), Class III Div 1 NEC® 503.10(A)(3)(2) and Class III Div 2 NEC® 503.10(B)
- Wiring in Spaces Above Class I Locations per NEC® 511.7(A(1)
- Use in Agricultural Buildings where Flexible Connections are required per NEC® 547.5(D)
- Marinas and Boatyards per NEC® 555.34(A)(1)
- Electric signs and Outdoor Lighting per NEC® 600.31(A)(1) and 600.32(A)(1)
- Flexible Connections for hoists and cranes per NEC® 610.11(C)
- Wiring Elevators, Dumbwaiters, Escalators, Moving Walks, Platforms and Stairway Chairlifts per NEC® 620.21
- Raised Computer Room Floors per NEC® 645.5(E)(1)(b)(11)
- Motors for Permanently Installed Pools where Flexible Connections are required per NEC® 680.21(A)(2)
- Spas and Hot Tubs where Flexible Connections are required per NEC® 680.42(A)(1)
- Feeders for Natural and Artificially Made Bodies of Water where Flexible Connections are required per NEC® 682.13
- Solar Photovoltaic (PV) Systems per NEC® 690.31(A)
- Fire Pump Wiring per NEC® 695.6(D)
- Electric Fire Pump Control Wiring per NEC® 695.14(E)
- "Splash Zones" contiguous to food production and wash down areas as defined in NSF® 51 Component and NSF® 170 Component Standards
- Food equipment and other devices associated with food production where not in contact with the food

SZ Series Product Information

Ratings

- Underwriters Laboratories Inc.:
  - Standard: UL 360
  - File: E26540
- CSA Group:
  - Standard: C22.2 No. 56
  - File: 51593
- NFPA 70:
  - NEC® Article 350
- Canadian Electric Code (CEC) Part I Clause 12-1300
- UL Listed in all Trade Sizes for Direct Burial which includes Concrete Encasement
- Conduit in Trade Sizes 1 ½ and larger require an equipment grounding conductor per NEC® 350.60
- NSF® International certified as complying with NSF®/ANSI 169 and all applicable requirements

Reference Standards	
UL 360	Standard for Liquidtight Flexible Metal Conduit
CSA C22.2 No. 56	Standard for Flexible Metal Conduit and Liquidtight Flexible Metal Conduit
File Reference(s):	UL E26540; CSA 51593
NEC®Articles	NEC® 250, 350, 390, 501.10(B)(2)(4), 502.10(A)(2)(2), 502.10(B)(2), 503.10(A)(3)(2), 503.10(B), 504.20, 553.7(B), 600.13(A), 600.32(A)(1), 610.11(C), 620.21(A)(1)(c)(2), 620.21(A)(2)(a), 620.21(A)(2)(d)(2), 620.21(A)(3)(a), 620.21(A)(4)(2), 620.21(B)(1), 620.21(C)(1), 645.5(E)(2), 680.42(A)(1), 682.13, 690.31(A), 695.6(D), 695.14(E)
Department of Defense Adopted UL 360 on October 1, 1987	
NSF®/ANSI 169	Special Purpose Food Equipment and Devices

Table 1

Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size (in)	Metric Designator	Coil Length	Approx. Weight 100 feet (lbs)	Min. Average Thickness of Jacket (in)	Over Conduit (min/max)	Over Jacket (min/max)	Internal Diameter (min/max) (in)	Bend Radius (in)
SZ01-30-00	3/8	12	100	24	0.03	0.594/0.614	0.690/0.710	0.484/0.504	2
SZ02-30-00	1/2	16	100	31	0.03	0.732/0.765	0.820/0.840	0.622/0.642	3.25
SZ03-30-00	3/4	21	100	49	0.035	0.930/0.960	1.030/1.050	0.820/0.840	4.25
SZ04-30-00	1	27	100	79	0.035	1.201/1.226	1.290/1.315	1.041/1.066	6.5
SZ05-24-00	1 1/4	35	50	103	0.035	1.540/1.570	1.630/1.660	1.380/1.410	8
SZ06-24-00	1 1/2	41	50	109	0.04	1.735/1.770	1.865/1.900	1.575/1.600	9
SZ07-24-00	2	53	50	146	0.04	2.180/2.215	2.340/2.375	2.020/2.045	11.12

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. **Review NEC® 350.60 and 250.118(6) for grounding requirements.**
Additional trade sizes up to 4" available upon request

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

5900 Series Product Information

Table 1									
Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size	Metric Designator	Coil Length (ft)	Reel Length (ft)	Approx. Weight/ 100 Feet (lbs)	Min. Average Jacket Thickness (in)	Internal Diameter (Min/Max) (in)	Over Jacket (Min/Max)(in)	Bend Radius (in)
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	11/4	35	50	–	62	0.035	1.380/1.410	1.630/1.660	8
5905-40-00	11/4	35	–	200	62	0.035	1.380/1.410	1.630/1.660	8
5906-24-00	11/2	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	

CSA HYDROTITE™ COM-BLUE 6300 Series

Description

- Corrosion-resistant hot-dipped galvanized zinc steel core
- FT-4 rated PVC jacket
- Integral bond wire inserted between the convolutions of the spiral wound metal armor for Trade Sizes 12 (⅜) – 35 (1¼)
- UV resistant
- Flexible in cold weather
- Sequential Print in meters printed on jacket

Applications

- Computer rooms
- OEM's
- Equipment builders
- CSA Equipment
- Where flexible connections are required

Specifications

- Available with custom print up to 200 characters long
- Temperature rating 75°C dry, 75°C oil
- Standard color blue (custom colors available upon request)
- CSA Certified to CSA C22.2 No.56 under Files 51593 and MC157782
- CEC Hazardous locations: Class I Div. 2, Class II Div. 1 18-202 (4)(b), Class II Div. 2 18-252 (4), Class III Div. 1 18-302 (4), Class III Div. 2 18-352
- Meets -30°C Flexibility Test
- Meets -25°C Cold Impact Test

COM-BLUE 6300 Series Product Information

Ordering Information						Product Dimensions/Bend Radius			
Product Code	Catalog Number	Trade Size in. (mm)	Coil Length (mm)	Reel Length (mm)	Approximate Weight (kg/mm)	Internal Diameter Min. mm (in)	External Diameter Min. mm (in)	External Diameter Max. mm (in)	Bend Radius mm (in)
6301-21-00	CM4D-0375M0030C	3/8 (12)	30	–	0.33	12.29 (0.484)	17.50 (0.690)	18.00 (0.710)	102 (4.0)
6301-80-00	CM4D-0375M0300R	3/8 (12)	–	300	0.33	12.29 (0.484)	17.50 (0.690)	18.00 (0.710)	102 (4.0)
6302-21-00	CM4D-0500M0030C	1/2 (16)	30	–	0.40	15.80 (0.622)	20.80 (0.820)	21.30 (0.840)	152 (6.0)
6302-35-00	CM4D-0500M0150R	1/2 (16)	–	150	0.40	15.80 (0.622)	20.80 (0.820)	21.30 (0.840)	152 (6.0)
6302-80-00	CM4D-0500M0300R	1/2 (16)	–	300	0.40	15.80 (0.622)	20.80 (0.820)	21.30 (0.840)	152 (6.0)
6303-21-00	CM4D-0750M0030C	3/4 (21)	30	–	0.53	20.83 (0.820)	25.20 (1.030)	26.70 (1.050)	203 (8.0)
6303-35-00	CM4D-0750M0150R	3/4 (21)	–	150	0.53	20.83 (0.820)	25.20 (1.030)	26.70 (1.050)	203 (8.0)
6303-80-00	CM4D-0750M0300R	3/4 (21)	–	300	0.53	20.83 (0.820)	25.20 (1.030)	26.70 (1.050)	203 (8.0)
6304-21-00	CM4D-1000M0030C	1 (27)	30	–	0.73	26.44 (1.041)	32.80 (1.290)	33.40 (1.315)	254 (10.0)
6304-35-00	CM4D-1000M0150R	2 (27)	–	150	0.73	26.44 (1.041)	32.80 (1.290)	33.40 (1.315)	254 (10.0)
6305-15-00	CM4D-1250M0015C	1 1/4 (35)	15	–	1.06	35.05 (1.380)	41.40 (1.630)	42.20 (1.660)	318 (12.5)
6305-75-00	CM4D-1250M0075R	1 1/4 (35)	–	75	1.06	35.05 (1.380)	41.40 (1.630)	42.20 (1.660)	318 (12.5)
6306-15-00	CM4D-1500M0015C	1 1/2 (41)	15	–	1.33	40.01 (1.575)	47.40 (1.865)	48.30 (1.900)	381 (15.0)
6306-57-00	CM4D-1500M0045R	1 1/2 (41)	–	45	1.33	40.01 (1.575)	47.40 (1.865)	48.30 (1.900)	381 (15.0)
6307-15-00	CM4D-2000M0015C	2 (53)	15	–	1.46	51.31 (2.020)	59.40 (2.340)	60.30 (2.375)	508 (20.0)
6307-21-00	CM4D-2000M0030R	2 (53)	–	30	1.46	51.31 (2.020)	59.40 (2.340)	60.30 (2.375)	508 (20.0)
6308-08-00	CM4D-2500M0008C	2 1/2 (63)	8	–	1.80	62.99 (2.480)	72.10 (2.840)	73.00 (2.875)	635 (25.0)
6309-08-00	CM4D-3000M0008C	3 (78)	8	–	2.20	77.98 (3.070)	87.90 (3.460)	88.90 (3.500)	762 (30.0)
6310-08-00	CM4D-4000M0008C	4 (103)	8	–	6.30	101.60 (4.000)	113.30 (4.460)	114.30 (4.500)	1016 (40.0)

CSA HYDROTITE™ HC 6300 Series

Description

- Corrosion-resistant hot-dipped galvanized zinc steel core
- FT-4 rated PVC jacket
- UV resistant
- Flexible in cold weather
- Sequential Print in meters printed on jacket
- Standard Color: Black.
  Additional colors available upon request

Applications

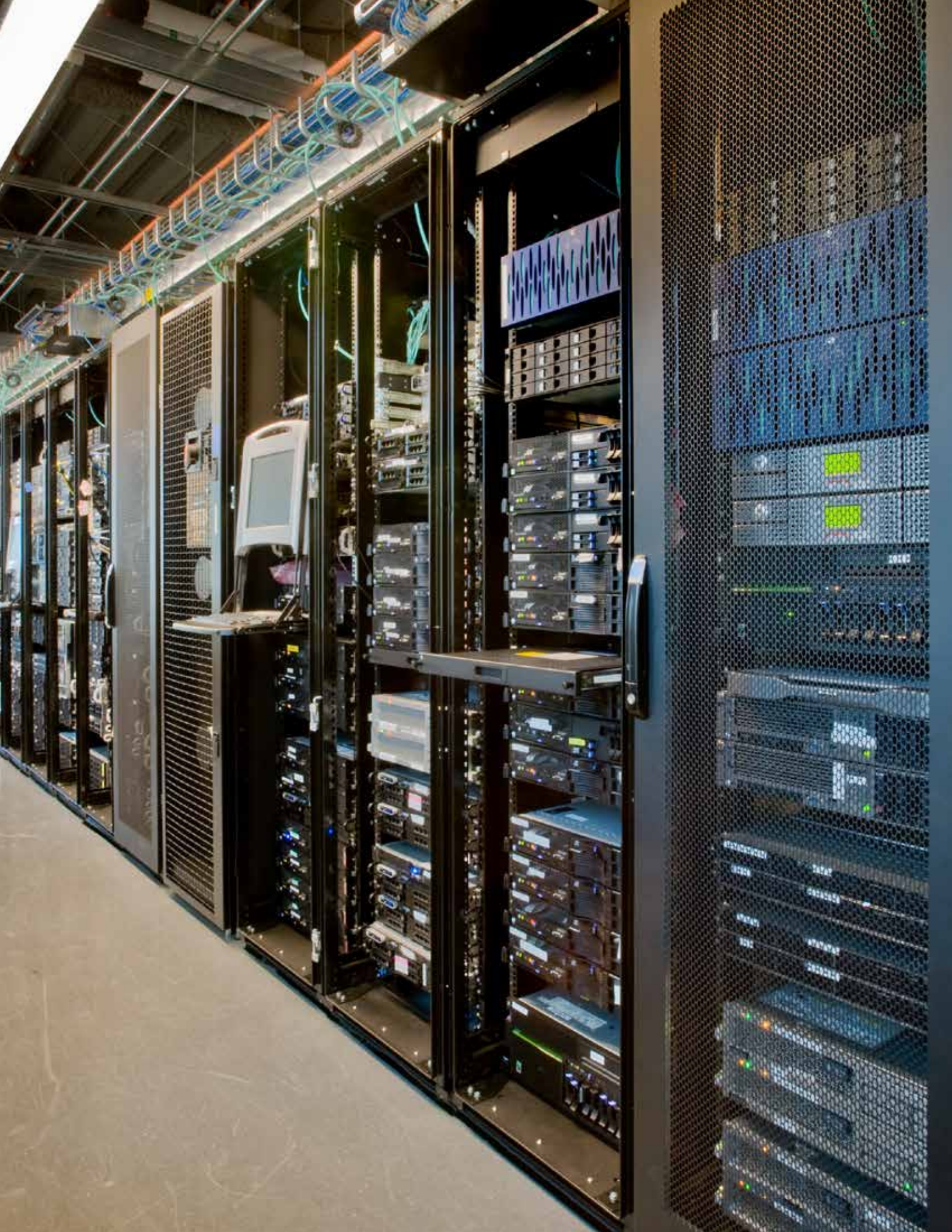
- OEM's
- Equipment builders
- CSA Equipment
- Where flexible connections are required

Specifications

- Temperature rating 75°C dry, 75°C oil
- Standard color black (custom colors available upon request)
- CSA Certified to CSA C22.2 No.56 under Files 51593 and MC157782
- CEC Hazardous locations: Class I Div. 2, Class II Div. 1 18-202 (4)(b), Class II Div. 2 18-252 (4), Class III Div. 1 18-302 (4), Class III Div. 2 18-352
- Meets -30°C Flexibility Test CSA
- Meets -25°C Cold Impact Test CSA

HC 6300 Series Product Information

Ordering Information						Product Dimensions/Bend Radius			
Product Code	Catalog Number	Trade Size in. (mm)	Coil Length (mm)	Reel Length (mm)	Approximate Weight (kg/mm)	Internal Diameter Min. mm (in)	External Diameter Min. mm (in)	External Diameter Max. mm (in)	Bend Radius mm (in)
HC01-21-00	CSAC-0375M0030C	3/8 (12)	30	–	0.33	12.29 (0.484)	17.50 (0.690)	18.00 (0.710)	102 (4.0)
HC01-80-00	CSAC-0375M0300R	3/8 (12)	–	300	0.33	12.29 (0.484)	17.50 (0.690)	18.00 (0.710)	102 (4.0)
HC02-21-00	CSAC-0500M0030C	1/2 (16)	30	–	0.40	15.80 (0.622)	20.80 (0.820)	21.30 (0.840)	152 (6.0)
HC02-35-00	CSAC-0500M0150R	1/2 (16)	–	150	0.40	15.80 (0.622)	20.80 (0.820)	21.30 (0.840)	152 (6.0)
HC02-80-00	CSAC-0500M0300R	1/2 (16)	–	300	0.40	15.80 (0.622)	20.80 (0.820)	21.30 (0.840)	152 (6.0)
HC03-21-00	CSAC-0750M0030C	3/4 (21)	30	–	0.53	20.83 (0.820)	25.20 (1.030)	26.70 (1.050)	203 (8.0)
HC03-35-00	CSAC-0750M0150R	3/4 (21)	–	150	0.53	20.83 (0.820)	25.20 (1.030)	26.70 (1.050)	203 (8.0)
HC03-80-00	CSAC-0750M0300R	3/4 (21)	–	300	0.53	20.83 (0.820)	25.20 (1.030)	26.70 (1.050)	203 (8.0)
HC04-21-00	CSAC-1000M0030C	1 (27)	30	–	0.73	26.44 (1.041)	32.80 (1.290)	33.40 (1.315)	254 (10.0)
HC04-35-00	CSAC-1000M0150R	2 (27)	–	150	0.73	26.44 (1.041)	32.80 (1.290)	33.40 (1.315)	254 (10.0)
HC05-15-00	CSAC-1250M0015C	1 1/4 (35)	15	–	1.06	35.05 (1.380)	41.40 (1.630)	42.20 (1.660)	318 (12.5)
HC05-75-00	CSAC-1250M0075R	1 1/4 (35)	–	75	1.06	35.05 (1.380)	41.40 (1.630)	42.20 (1.660)	318 (12.5)
HC06-15-00	CSAC-1500M0015C	1 1/2 (41)	15	–	1.33	40.01 (1.575)	47.40 (1.865)	48.30 (1.900)	381 (15.0)
HC06-57-00	CSAC-1500M0045R	1 1/2 (41)	–	45	1.33	40.01 (1.575)	47.40 (1.865)	48.30 (1.900)	381 (15.0)
HC07-15-00	CSAC-2000M0015C	2 (53)	15	–	1.46	51.31 (2.020)	59.40 (2.340)	60.30 (2.375)	508 (20.0)
HC07-21-00	CSAC-2000M0030R	2 (53)	–	30	1.46	51.31 (2.020)	59.40 (2.340)	60.30 (2.375)	508 (20.0)
HC08-08-00	CSAC-2500M0008C	2 1/2 (63)	8	–	1.80	62.99 (2.480)	72.10 (2.840)	73.00 (2.875)	635 (25.0)
HC09-08-00	CSAC-3000M0008C	3 (78)	8	–	2.20	77.98 (3.070)	87.90 (3.460)	88.90 (3.500)	762 (30.0)
HC10-08-00	CSAC-4000M0008C	4 (103)	8	–	6.30	101.60 (4.000)	113.30 (4.460)	114.30 (4.500)	1016 (40.0)



For more information on flexible conduit and liquidtight fittings please visit Atkore.com/atce/fittings

UL Type LFNC-B 6000 Series

Scope
This specification covers AFC Cable Systems, Inc. UL LIQUID-TUFF™ Integral Liquidtight Flexible Nonmetallic Conduit, Type LFNC-B designed for use in wet, dry or oily locations as a flame-resistant, Nonmetallic raceway for power, control and communications cables in compliance with Article 356 of the National Electrical Code. The product is UL Listed for 80°C (176°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 through 2-inch trade sizes for direct burial, outdoor use and sunlight resistance. This Liquidtight Flexible Nonmetallic Conduit is manufactured and tested in accordance with the harmonized Underwriters Laboratories Inc. Standard UL 1660. The product carries both the UL and cUL Listing Marks.

Construction
Liquidtight Flexible Nonmetallic Conduit, Type LFNC-B is a raceway of circular cross section with a smooth polyvinyl chloride (PVC) inner surface and an integral rigid PVC reinforcing member within the conduit wall. The wall thicknesses and dimensions of the integral conduit shall comply with Table 3 UL 1660 which are summarized in Table 1.

A rugged moisture, oil and sunlight resistant flexible polyvinyl chloride (PVC) jacket shall be extruded directly over the integral rigid PVC core with a wall thickness in conformance with Product Information below. Jacket: Gray

Grounding
A separate Grounding conductor is required by both the National Electrical Code and the Canadian Electrical Code for all trade sizes.

Markings
The surface of the outer jacket shall be clearly marked with a legible print legend in compliance with UL 1660.

Performance Tests
The completed UL LIQUID-TUFF™ Liquidtight Flexible Nonmetallic Conduit, Type LFNC-B shall meet all of the performance requirements contained in UL 1660 and outlined in Appendix A.

Description
- UL Listed
- Rugged Nonmetallic PVC
- Interior integral reinforced member within conduit wall
- Integral Type B construction per NEC® 356.2(2)
- Rigid PVC spiral core for strength
- Outdoor applications including direct burial
- Rated for concrete embedment
- Sunlight and oil resistant
- Non-conductive raceway

Temperature Rating
- 80°C (176°F) Dry
- 60°C (140°F) Wet
- 70°C (158°F) Oil

Applications & References
Suitable for use in:
- NEC® 356.2(2) Liquidtight Flexible Nonmetallic Conduit Type LFNC-B
- Wet Locations
- Direct Burial in earth
- Concrete Embedment
- Exposure to Sunlight and Weather
- Flexible Connections in Hazardous Locations: Class I Div 2 NEC® 501.10(B)(2)(5), Class II Div 1 NEC® 502.10(A)(2)(3), Class II Div 2 NEC® 502.10(B)(2), Class III Div 1 NEC® 503.10(A)(3)(3) and Class III Div 2 NEC® 503.10(B).
- Raised Computer Room Floors per NEC® 645.5(E)(1)(b)(12)
- Service Entrance Wiring per NEC® 230.43(16)
- Marinas and Boatyards per NEC® 555.34(A)(1)
- Electric signs and Outdoor Lighting per NEC® 600.31(A) and 600.32(A)(1)
- Flexible Connections for hoists and cranes per NEC® 610.11(C)
- Wiring Elevators, Dumbwaiters, Escalators, Moving Walks, Platforms and Stairway Chairlifts per NEC® 620.21
- Motors for Permanently Installed Pools where Flexible Connections are required per NEC® 680.21(A)(2)
- Spas and Hot Tubs where Flexible Connections are required per NEC® 680.42(A)(1)
- Feeders for Natural and Artificially Made Bodies of Water where Flexible Connections are required per NEC® 682.13
- Solar Photovoltaic (PV) Systems per NEC® 690.31(A)
- Fire Pump Wiring per NEC® 695.6(D)
- Electric Fire Pump Control Wiring per NEC® 695.14(E)

Ratings
- Underwriters Laboratories Inc.:
  - Standard: UL 1660
  - File: E123464
- NFPA 70:
  - NEC® Article 356
- Canadian Electric Code (CEC) Part I Clause 12-1300
- UL Listed in all Trade Sizes for Direct Burial which includes Concrete Encasement
- All Trade Sizes require an equipment grounding conductor per NEC® 356.60
- All Trade Sizes require a bonding conductor per CEC Rule 12-1306

6000 Series Product Information

Ordering Information						Product Dimensions/Bend Radius		
Product Code	Trade Size (in)	Trade Size (mm)	Coil Length (ft)	Reel Length (ft)*	Approx. Weight 100 feet (lbs)	Internal Diameter (min/max) inches	External Diameter (min/max) inches	Bend Radius (in)
6001-30-00	3/8	12	100	–	12	0.484/0.504	0.690/0.710	2
6002-30-00	1/2	16	100'	–	13	0.622/0.642	0.820/0.840	3.25
6002-60-00	1/2	16	–	1000	13	0.622/0.642	0.820/0.840	3.25
6003-30-00	3/4	21	100	–	18	0.820/0.840	1.030/1.050	4.25
6003-46-00	3/4	21	–	700	18	0.820/0.840	1.030/1.050	4.25
6004-30-00	1	27	100	–	27	1.041/1.066	1.290/1.315	6.5
6004-45-00	1	27	–	500	27	1.041/1.066	1.290/1.315	6.5
6005-24-00	1 1/4	35	50	–	35	1.380/1.410	1.630/1.660	8
6006-24-00	1 1/2	41	50	–	48	1.575/1.600	1.865/1.900	9
6007-24-00	2	53	50	–	70	2.020/2.045	2.340/2.375	11.1

NOTE: All dimensions and weights are subject to normal manufacturing tolerances.
*Continuous lengths available in ½– 1

Appendix A

UL Performance Tests

Physical Properties:

- Original Tensile and Elongation
- Air Oven Aging Test
- Oil Immersion Test
- Deformation Test

Tension
Cold Flexibility
Vertical Flame
Cold Impact
Secureness (of Fittings)
Mechanical Water Absorption
Moisture Penetration Test
Durability of Ink
Weather Resistance
Resistance to Deflections (Crush)
Pipe Stiffness for Direct Burial

Reference Standards	
UL 1660	Harmonized Standard for Liquidtight Flexible Nonmetallic Conduit
UL514B	Standard for Conduit, Tubing and Cable Fittings
NFPA 70	National Electric Code (NEC®) Articles 250, 356, 390, 501, 502, 503, 504, 511, 620, 645, 680 and 690

UL and CSA NSF® 169 Component for Splash Zones LFNC-B NSZ Series

Scope
This specification covers AFC Cable Systems, Inc. UL LIQUID-TUFF™ Liquidtight Flexible Nonmetallic Conduit designed for use as a raceway for NSF® 169 Special Purpose Food Equipment and Devices, meat packing, restaurants, food processing, poultry packing, pharmaceutical facilities. Temperature ranges: 80°C (176°F) Dry, 60°C (140°F) Wet, 70°C (158°F) Oily. PVC jacket designed to inhibit bacteria growth and to withstand "wash down/splash zones" with bleach agents. This Liquidtight Flexible Non-Metallic Conduit is manufactured and tested in accordance with Harmonized Underwriters Laboratories Inc. Standard UL 1660 and CSA International Standard CSA C22.2 Number 227.2.1. The product carries the UL Listing Mark and the CSA Certification Mark and NSF® 169 Component Certification Logo.

Construction
Liquidtight Flexible Non-Metallic Conduit, Type LFNC-B is a raceway of circular cross section with a smooth polyvinyl chloride (PVC) inner surface and an integral rigid PVC reinforcing member within the conduit wall. White* PVC jacket inhibits bacteria growth. Rugged moisture, oil and sunlight resistant polyvinyl chloride (PVC). May be cleaned without degradation to the jacket with bleaching agents.
Jacket Color: Stocked in white.

Grounding
A separate Grounding conductor is required by both the National Electrical Code and the Canadian Electrical Code for all trade sizes.

Markings
The outer surface of the conduit shall be clearly marked with a legible print legend in accordance with UL 1660 and CSA C22.2 No. 227.2.1 and NSF® 169.

Description
- NSF® 169 Component for "splash zones" in food production areas
- NSF® 169 Component Special Purpose Food Equipment and Devices
- PVC jacket inhibits bacteria growth – color white
- Ease of cleaning/sterilization using bleach – no degradation of jacket
- Rugged nonmetallic PVC construction
- Non-conductive - non-corrosive

Temperature Rating
- 80°C (176°F) Dry
- 60°C (140°F) Wet
- 70°C (158°F) Oily
- -18°C (0°F) Low-Temperature

Applications & References
Suitable for use in:
- Food equipment & other devices associated with food production
- NSF® 169 Component compliant
- For use in "splash zones" contiguous to food production – wash down areas
- PVC jacket does not promote the growth of bacteria
- Meatpacking, restaurants, food processing, poultry packing, pharmaceutical facilities

Ratings
- UL 1660, UL File E123464
- CSA C 22.2 No. 227.2.1
- CSA File 69271
- NSF® 169 Special Purpose Food Equipment and Devices
- NEC® 356, 390.15, 501.10(B)(2), 502.10(A)(2), 503.10(A)(2), 511.7(A)(1), 620.21, 680.21, 680.23, 680.25, 680.27, 680.42, 695.6(E), and 695.14(E)
- Made in USA of US and/or imported materials
- Food equipment and other devices associated with food production where not in contact with the food

NSZ Series Product Information

Ordering Information					Product Dimensions/Bend Radius		
Product Code	Trade Size (in)	Trade Size (mm)	Coil Length (ft)	Approx. Weight 100 feet (lbs)	Internal Diameter (min/max) (in)	External Diameter (min/max) (in)	Bend Radius (in)
NSZ1-30-00	3/8	12	100'	12	0.484/0.504	0.690/0.710	2
NSZ2-30-00	1/2	16	100'	13	0.622/0.642	0.820/0.840	3.25
NSZ3-30-00	3/4	21	100'	18	0.820/0.840	1.030/1.050	4.25
NSZ4-30-00	1	27	100'	27	1.041/1.066	1.290/1.315	6.5
NSZ5-24-00	1 1/4	35	50'	35	1.380/1.410	1.630/1.660	8
NSZ6-24-00	1 1/2	41	50'	48	1.575/1.600	1.865/1.900	9
NSZ7-24-00	2	53	50'	76	2.020/2.045	2.340/2.375	11.12

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

Reference Standards	
UL 1660	Standard for Liquidtight Flexible Non-Metallic Conduit
CSA C22.2 No. 227.2.1	Standard for Flexible Liquidtight Non-Metallic Conduit
NSF®/ANSI 169	Special Purpose Food Equipment and Devices
File References	UL File E123464; CSA 69271
NEC®Articles	NEC® 356, 390.15, 501.10(B)(2), 502.10(A)(2), 503.10(A)(2), 511.7(A)(1), 620.21, 645.5(D)(2), 680.21, 680.23, 680.25, 680.27, 680.42, 695.6(E) and 695.14(E)

UL Type LFNC-A 6500 Series

Scope
This specification covers AFC Cable Systems, Inc. LIQUID-TUFF™ Layered Liquidtight Flexible Nonmetallic Conduit, designed for use in wet, dry or oily locations as a flame-resistant, Nonmetallic raceway for power, control and communications cables where repetitive motion and constant flexing is required. It is intended for applications where abrasion and physical abuse may occur. It complies with Article 356 of the NEC® regarding layered conduit Type LFNC-A. The product is UL Listed for 80°C (176°F) in a dry location, 60°C (140°F) in a wet location and 60°C (140°F) in a oily location. It is also UL Listed through 2-inch trade sizes for outdoor use and sunlight resistance. This Liquidtight Flexible Nonmetallic Conduit is manufactured and tested in accordance with Harmonized Underwriters Laboratories Inc. Standard UL 1660. The product carries the UL Listing Mark for US and Canada.

Construction
Liquidtight Flexible Nonmetallic Conduit Type LFNC-A is a layered raceway of circular cross section with a smooth flexible polyvinyl chloride (PVC) inner layer with a reinforcing layer covered with a flexible polyvinyl chloride (PVC) jacket. The wall thicknesses and dimensions of the layered conduit shall comply with Table1 of harmonized UL 1660/CSA C22.2 No. 227.2.1 of UL 1660 which is summarized in Table 1.
Color: Orange

Grounding
A separate Grounding conductor is required by both the National Electrical Code and Canadian Electrical Code for all trade sizes.

Markings
The outer surface of the conduit shall be clearly marked with a legible print legend in accordance with harmonized UL 1660/ CSA C22.2 No. 227.2.1.

Performance Tests
The completed LIQUID-TUFF™ Liquidtight Flexible Nonmetallic Conduit Type A shall meet all of the performance requirements contained in UL 1660 outlined in Appendix A.

Description
- Layered Type A construction per NEC® 356.2(1)
- Nylon reinforced braid between two layers of PVC for strength and flexibility
- Flame retardant compound
- Sunlight resistant
- Oil resistant
- Mild acid resistance
- Non-conductive raceway

Temperature Rating
- 80°C (176°F) Dry
- 60°C (140°F) Wet
- 60°C (140°F) OIL

Applications
Suitable for use in:
- NEC® 356.2(1) Liquidtight Flexible Nonmetallic Conduit Type LFNC-A
- Wet Locations
- Outdoor use to include exposure to Sunlight and Weather
- Service Entrance Wiring per NEC® 230.43(16)
- Connections to Cabinets and Wall Outlets in Underfloor Raceways per NEC® 390.15
- Cable Trays per NEC® 392.10(A) and Table 392.10(A) Wiring Methods
- Flexible Connections in Hazardous Locations: Class I Div 2 NEC® 501.10(B)(2)(5), Class II Div 1 NEC® 502.10(A)(2)(3), Class II Div 2 NEC® 502.10(B)(2), Class III Div 1 NEC® 503.10(A)(3)(3) and Class III Div 2 NEC® 503.10(B).
- Wiring in Spaces Above Class I Locations per NEC® 511.7(A)(1).
- Agricultural Buildings where Flexible Connections are required per NEC® 547.5(D)
- Marinas and Boatyards per NEC® 555.34(A)(1)
- Electric Signs and Outdoor Lighting for Neon Secondary-Circuit Wiring of 1000V or Less per NEC® 600.31(A)
- Electric Signs and Outdoor Lighting for Neon Secondary-Circuit Wiring of More Than 1000V per NEC® 600.32(A)(1)
- Flexible Connections for Hoists and Cranes per NEC® 610.11(C)
- Wiring Elevators, Dumbwaiters, Escalators, Moving Walks, Platforms and Stairway Chairlifts per NEC® 620.21
- Raised Computer Room Floors per NEC® 645.5(E)(1)(b)(12)
- Motors for Permanently Installed Pools where Flexible Connections are required per NEC® 680.21(A)(2)
- Spas and Hot Tubs where Flexible Connections are required per NEC® 680.42(A)(1)
- Feeders for Natural and Artificially Made Bodies of Water where Flexible Connections are required per NEC® 682.13
- Solar Photovoltaic (PV) Systems per NEC® 690.31(A)
- Applications where constant flexing motion is required

Ratings
- Underwriters Laboratories Inc.:
  Standard: UL 1660
  File: E123464
- cUL Certified for Canada
- NFPA 70: NEC® Article 356
- Canadian Electric Code (CEC) Part I Clause 12-1300
- All Trade Sizes require an equipment grounding conductor per NEC® 356.60
- All Trade Sizes require a bonding conductor per CEC Rule 12-1306

6500 Series Product Information

Ordering Information						Product Dimensions/Bend Radius			
Product Code	Trade Size	Metric Designator	Coil Length (ft)	Reel Length (ft)	Approx. Weight 100 feet (lbs)	Min. Average Wall Thickness	Internal Diameter (min/max) (in)	External Diameter (min/max) (in)	Bend Radius (in)
6501-30-00	3/8	12	100	–	14	0.045	0.475/0.515	0.745/0.785	2
6502-30-00	1/2	16	100	–	16	0.045	0.610/0.650	0.900/0.940	3.25
6502-60-00	1/2	16	–	1000	16	0.045	0.610/0.650	0.900/0.940	3.25
6503-30-00	3/4	21	100	–	18	0.050	0.805/0.845	1.140/1.180	4.25
6504-30-00	1	27	100	–	29	0.050	1.020/1.065	1.400/1.450	6.5
6504-45-00	1	27	–	500	29	0.050	1.020/1.065	1.400/1.450	6.5
6505-24-00	1 1/4	35	50	–	40	0.055	1.360/1.405	1.790/1.835	8
6506-24-00	1 1/2	41	50	–	83	0.055	1.575/1.630	2.035/2.090	9
6507-24-00	2	53	50	–	140	0.055	2.035/2.090	2.595/2.650	11.1

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

Appendix A		
UL Performance Tests		
Physical Properties: • Original Tensile and Elongation • Air Oven Aging Test • Oil Immersion Test • Deformation	Cold Impact	Durability of Ink Printing
Tension	Secureness of Fittings	Weather Resistance
Flexibility (Low-Temperature)	Mechanical Water Absorption	Resistance to Deflection (Crush) Test
Vertical Flame	Moisture Penetration Test	

Reference Standards	
UL 1660/ CSA C22.2 No. 227.2.1	Harmonized Standard for Liquidtight Flexible Nonmetallic Conduit
UL 514B	Standard for Conduit, Tubing and Cable Fittings
NFPA 70	National Electric Code (NEC®) Articles 250, 356, 390, 501, 502, 503, 504, 511, 620, 645, 680 and 690

Ultraflex™ Mechanical Protection Tubing
NMPT-B 160 Series

Scope
This specification covers AFC Cable Systems, Inc. LIQUID-TUFF™ Liquidtight ULTRAFLEX™ (1) c UL us RECOGNIZED COMPONENT EXTRA-FLEXIBLE Nonmetallic MECHANICAL PROTECTION TUBING. (1) LIQUID-TUFF™ Liquidtight ULTRAFLEX™ c UL us RECOGNIZED COMPONENT EXTRA FLEXIBLE NONMETALLIC MECHANICAL PROTECTION TUBING is designed for use in connection with the support of and protection of insulated wires, placed within the tubing, that are used to interconnect separate component assemblies or consoles of electrical apparatus, such as x-ray equipment. Use of the combination is to be determined by Underwriters Laboratories Inc. The acceptable use of this material is limited to the following conditions:

1. This tubing may be used for the routing of internal wiring between electrical components of electrical equipment. The protection afforded to the internal wiring by the tubing may be considered equivalent to the protection afforded the internal conductors by the jacket of a Type SJT flexible cord.
2. The tubing is suitable for use at a maximum temperature of 60°C.
3. The tubing and manufacturer's supplied fittings were not tested to determine flammability rating per UL 224.
4. The tubing shall be terminated at each end of the consoles or appliances to which connected to provide strain relief to withstand a 35-pound pull for 1.0 minute. Fittings available from the manufacturer met this requirement.
5. The percent fill of the tubing with conductors shall not exceed 75% where percent fill is defined as: Percent Fill = Area of Enclosed Conductors x 100/Internal Area of Tubing Fill Factor.
6. The minimum bend radius shall not be less than the outside diameter of the tubing.
7. The manufacturer's fittings were subjected to the Oil Spray Test in accordance with UL 514B.
8. As this tubing and manufacturer supplied fittings are to be Recognized as a Component, final acceptance will be determined in terms of the combination of component and appliance as determined by Underwriters Laboratories Inc., regarding such characteristics as flammability; degree of bending or flexing; resistance to water, oil and abrasion; and physical strength.

LIQUID-TUFF™ Liquidtight ULTRAFLEX™ EXTRA-FLEXIBLE Nonmetallic tubing is designed for use in wet, dry or oily locations as a flame resistant, Nonmetallic raceway for power, control and communications cables. The product is intended for use at 60°C (140°F) in a dry location, 60°C (140°F) in a wet location and 60°C (140°F) in a oily location. It is sunlight resistant.

Construction
LIQUID-TUFF™ Liquidtight ULTRAFLEX™ MECHANICAL PROTECTION TUBING has a circular cross section with a smooth polyvinyl chloride (PVC) inner surface and an integral reinforcing member within the conduit wall. The dimensions of the integral tubing/conduit shall comply with Table 1.
Color: Black.

Grounding
Where applicable a separate grounding conductor is required for all trade sizes.

Markings
The product marking is contained on the outer carton.

Performance Tests
The completed LIQUID-TUFF™ Liquidtight ULTRAFLEX™ TUBING shall meet the performance requirements outlined in Appendix A.

Standards
- Harmonized UL 1696/cUL Listed
- Nonmetallic Mechanical Protection Tubing
- To maintain the Recognized Component Certification, the tubing and fittings must be from the same manufacturer. The components are not interchangeable. For fittings, please see Table 2.

File
UL E79977

Description
- c UL us component, extra-flexible Nonmetallic mechanical protection tubing
- Corrugated flame-resistant PVC with integral reinforcing member
- Non-conductive raceway – black

Temperature Rating
- 60°C Dry
- 60°C Wet and Oily

Applications
- c UL us recognized component for use in protection of insulated wire in assemblies or consoles of electrical apparatus. Use is to be determined by Underwriters Laboratories Inc.

References & Ratings
- c UL us recognized component Liquidtight Mechanical Protection Tubing under UL File Number E79977
- UL1696 Standard for Nonmetallic Mechanical Protection Tubing
- UL Certified to CSA C22.2 No. 227.3
- Made in USA of US and/or imported materials

160 Series Product Information

Table 2								
Ordering Information						Product Dimensions/Bend Radius		
Product Code	Trade Size (in)	Trade Size (mm)	Coil Length (ft)	Reel Length (ft)	Approx. Weight 100 feet (lbs)	Internal Diameter (min/max) (in)	External Diameter (min/max) (in)	Bend Radius (in)
160-012	3/8	12	100	–	5	0.484/0.504	0.695/0.705	0.49
160-016	1/2	16	100	–	8	0.622/0.642	0.825/0.835	0.63
160-021	3/4	21	100	–	11	0.820/0.840	1.035/1.045	0.83
160-026	1	27	100	–	16	1.041/1.066	1.297/1.308	1.10
160-035	1 1/4	35	100	–	21	1.380/1.410	1.640/1.650	1.40
160-040	1 1/2	41	100	–	26	1.575/1.600	1.877/1.888	1.59
160-051	2	53	100	–	33	2.020/2.045	2.352/2.363	2.04

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

Appendix A
Performance Requirements
Heat Aging Test
Cold Bend Test
Heat Shock Test
Crush Test
Impact Test
Oil Spray Test

Size (IN)	Straight Designations	90 Degree Designations	Colors
3/8	0921-PP-GY	0981-PP-GY	Gray
1/2	0922-PP-BK/0922-PP-GY	0982-PP-BK/0982-PP-GY	Black/Gray
3/4	0923-PP-BK/0923-PP-GY	0983-PP-BK/0983-PP-GY	Black/Gray
1	0924-PP-BK/0924-PP-GY	0984-PP-BK/0984-PP-GY	Black/Gray
1 1/4	0925-PP-BK/0925-PP-GY	0985-PP-BK/0985-PP-GY	Black/Gray
1 1/2	0926-PP-BK/0926-PP-GY	0986-PP-BK/0986-PP-GY	Black/Gray
2	0927-PP-BK/0927-PP-GY	0987-PP-BK/0987-PP-GY	Black/Gray


CHWS
CHWS

For more information on flexible conduit and liquidtight fittings please visit Atkore.com/atce/fittings

UL Reduced Wall Aluminum Type RW FAC 5600 Series

Description

- Lightweight Reduced Wall Aluminum Flexible Conduit
- Premium aluminum alloy
- Interlocking design
- Proprietary lubricant and process providing a non-oil surface and product with extra flexibility
- Trade sizes 1½–4 are made with no solder joints

Applications

Suitable for use in:

- Flexible Aluminum Conduit (FAC): A raceway of circular cross-section made of helically wound, interlocked aluminum strip
- Accordance with NEC® Article 348 Flexible Metal Conduit Type FMC
- Exposed and concealed locations
- Utilization equipment per NEC® 348.20(A)(2)(a)
- Part of a listed assembly per NEC® 348.20(A)(2)(b)
- Equipment ground in accordance with NEC® 250.118(5)
- Other Spaces Used for Environmental Air (Plenums) per NEC® 300.22(C)
- Use in Cable Trays per NEC® 392.10(A) and Table 392.10(A)
- Raceway for Tap Conductors for Luminaires per NEC® 348.20(A)(2)(c) and 410.117(C)
- Connection to a motor terminal enclosure per NEC® 430.223
- Class I Division 2 per NEC® 501.10(B)(2)(2)
- Neon Secondary-Circuit Wiring 1000V or Less per NEC® 600.31(A)
- Neon Secondary-Circuit Wiring Over 1000V per NEC® 600.32(A)(1)
- Manufactured Wiring Systems per 604.100(A)(2)
- Elevators, Dumbwaiters, Escalators, Moving walks, Platform and Stairway Chairlifts per NEC® 620.21
- Under Raised Floors per NEC® 645.5(E)(1)(b)(10)
- Solar Photovoltaic (PV) Systems per NEC® 690.31(A)
- Fuel Cell Systems per NEC® 692.31
- Wind Electric Systems per NEC® 694.30(A)
- Critical Operations Power Systems (COPS) where flexibility is required per NEC® 708.10(C)(1)(3)(b)
- Optical Fiber Cables for installation within buildings per NEC® 770.110(A)(1)
- Communications Circuit Wires and Cables for installation within buildings per NEC® 800.110(A)(1)
- Community Antenna Television and Radio Coaxial Cables for installation within buildings per NEC® 820.110(A)(1)
- Low and Medium Power Network-Powered Broadband Cables for installation within buildings per NEC® 830.110(A)(1)

Ratings

- NFPA 70:
  National Electric Code (NEC®) Articles 348, 250, 300, 392, 410, 423, 430, 501, 600, 604, 620, 645, 690, 692, 694, 708, 770, 800, 820 and 830
- UL 1
  Standard for Flexible Metal Conduit
  UL File Number E11831
  Federal Specification WW-C-566C superseded by UL 1
- UL 1479
  Fire Tests of Through-Penetration Firestops
  UL File Number R14141
  UL Classified Through-Penetrating Product for Use in Through-Penetration Firestop Systems
- NEMA RV 3
  Application and Installation Guidelines for Flexible and Liquidtight Flexible Metal Conduits
- C22.2 No. 56
  CSA Standard for Flexible Metal Conduit and Liquid-Tight Flexible Metal Conduit
  The ⅜ Trade Size is the only Type RW FMC that is CSA Certified
- RR 93227
  City of Los Angeles Electrical Testing Laboratory Research Report
  Number 93227
  Permits the use of ½ and ¾ Trade Sizes of Type RW Flexible Aluminum Conduit in long lengths per the Report

5600 Series Product Information

Ordering Information						Product Dimensions/Bend Radius		
Product Code	Trade Size (in)	Trade Size (mm)	Coil Length (ft)	Reel Length (ft)	Approx. Weight/ 100 feet (lbs)	Internal Diameter (min/max) (in)	External Diameter (min/max) (in)	Bend Radius (in)
5601-22-00*	3/8	12	25	–	6	0.375/0.393	0.560/0.610	2
5601-24-00*	3/8	12	50	–	6	0.375/0.393	0.560/0.610	2
5601-30-00*	3/8	12	100	–	6	0.375/0.393	0.560/0.610	2
5601-42-00*	3/8	12	250	–	6	0.375/0.393	0.560/0.610	2
5601-45-00*	3/8	12	–	500	6	0.375/0.393	0.560/0.610	2
5601-60-00*	3/8	12	–	1000	6	0.375/0.393	0.560/0.610	2
5602-22-00	1/2	16	25	–	10	0.625/0.645	0.860/0.920	3
5602-24-00	1/2	16	50	–	10	0.625/0.645	0.860/0.920	3
5602-30-00	1/2	16	100	–	10	0.625/0.645	0.860/0.920	3
5602-45-00	1/2	16	–	500	10	0.625/0.645	0.860/0.920	3
5602-60-00	1/2	16	–	1000	10	0.625/0.645	0.860/0.920	3
5603-22-00	3/4	21	25	–	12	0.812/0.835	1.045/1.105	4
5603-24-00	3/4	21	50	–	12	0.812/0.835	1.045/1.105	4
5603-30-00	3/4	21	100	–	12	0.812/0.835	1.045/1.105	4
5603-45-00	3/4	21	–	500	12	0.812/0.835	1.045/1.105	4
5603-60-00	3/4	21	–	1000	12	0.812/0.835	1.045/1.105	4
5604-24-00	1	27	50	–	18	1.000/1.040	1.300/1.380	5
5604-80-00	1	27	–	300	18	1.000/1.040	1.300/1.380	5
5605-24-00	1 1/4	35	50	–	22	1.250/1.300	1.550/1.630	6.25
5605-40-00	1 1/4	35	–	200	22	1.250/1.300	1.550/1.630	6.25
5606-22-00	1 1/2	41	25	–	26	1.500/1.575	1.850/1.950	7.50
5606-35-00	1 1/2	41	–	150	26	1.500/1.575	1.850/1.950	7.50
5606-80-00	1 1/2	41	–	300	26	1.500/1.575	1.850/1.950	7.50
5607-22-00	2	53	25	–	35	2.000/2.080	2.350/2.450	10
5607-30-00	2	53	–	100	35	2.000/2.080	2.350/2.450	10
5607-35-00	2	53	–	150	35	2.000/2.080	2.350/2.450	10
5608-22-00	2 1/2	63	25	–	57	2.500/–	2.860/3.060	12.50
5608-35-00	2 1/2	63	–	150	57	2.500/–	2.860/3.060	12.50
5609-22-00	3	78	25	–	68	3.000/–	3.360/3.560	15
5609-30-00	3	78	–	100	68	3.000/–	3.360/3.560	15
5610-22-00	3 1/2	91	25	–	80	3.500/–	3.860/4.060	17.50
5610-30-00	3 1/2	91	–	100	80	3.500/–	3.860/4.060	17.50
5611-22-00	4	103	25	–	91	4.000/–	4.360/4.560	20
5611-30-00	4	103	–	100	90	4.000/–	4.360/4.560	20

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. *CSA certified. Review NEC® 348.60 and 250.118(5) for grounding requirements.
Review NEC® 348.60 and 250.118(5) for grounding requirements.

CSA Ray-Flex™ Aluminum Type FAC 5700 Series

Description

- Heavy wall flexible aluminum conduit

Applications

Suitable for use in:

- Flexible Aluminum Conduit (FAC): A raceway of circular cross-section made of helically wound, interlocked aluminum strip.
- Accordance with CEC Rule 12-1000 Rigid and Flexible Metal Conduit
- Installation in or on buildings or portions of buildings of either combustible or non-combustible construction per CEC 12-1002(1)
- Support shall be provided in accordance with CEC 12-1010(3)
- Hoistways per CEC 12-1014(1)
- Wiring under raised floors for data processing and similar systems per CEC 12-020(2)
- Class I Zone 2 where flexibility is required per CEC 18.152(6)

Specifications

- CSA Certified to CSA C22.2 No.56
- Use in hazardous locations as per CEC Class I, Zone 2 & Div.2, Class II Div. 1 & 2, Class III Div. 1 & 2
- Made in USA of US and/or imported materials

Ratings	
C22.1	Canadian Electrical Code, Part I – Safety Standard for Electrical Installations Rule 12-1000
C22.2 No. 56	CSA Standard for Flexible Metal Conduit and Liquid-Tight Flexible Metal Conduit Master Contract 157782, File Number LL15035
NEC® Articles:	348, 390.15, 501.10(B)(2), 502.10(A)(2), 503.10(A)(2), 511.7(A)(1), 620.21, 645.5(D)(2), 680.21, 680.23, 680.25, 680.27, 680.42, 695.6(E) and 695.14(E)

5700 Series Product Information

Ordering Information							Product Dimensions/Bend Radius			
Product Code	Catalog Number	Trade Size in.(mm)	Coil Length (mm)	Reel Length (mm)	Approximate Weight (kg/meter)	Internal Diameter Min. mm (in)	Internal Diameter Max. mm (in)	External Diameter Min. mm (in)	External Diameter Max. mm (in)	Bend Radius mm (in)
5712-75-00	ALUC-0312M0075W	5/16 (10)	75	–	0.09	7.92 (0.312)	N/A	11.94 (.470)	12.95 (0.510)	89 (3.5)
5712-80-00	ALUC-0312M0300R	5/16 (10)	–	300	0.09	7.92 (0.312)	N/A	11.94 (.470)	12.95 (0.510)	89 (3.5)
5701-75-00	ALUC-0375M0075W	3/8 (12)	75	–	0.10	9.53 (0.375)	9.98 (0.393)	14.22 (0.560)	15.49 (0.610)	102 (4.0)
5701-80-00	ALUC-0375M0300R	3/8 (12)	–	300	0.10	9.53 (0.375)	9.98 (0.393)	14.22 (0.560)	15.49 (0.610)	102 (4.0)
5713-75-00	ALUC-0437M0075W	7/16 (14)	75	–	0.11	11.10 (0.437)	N/A	N/A	17.15 (0.675)	114 (4.5)
5713-80-00	ALUC-0437M0300R	7/16 (14)	–	300	0.11	11.10 (0.437)	N/A	N/A	17.15 (0.675)	114 (4.5)
5702-21-00	ALUC-0500M0030W	1/2 (16)	30	–	0.25	15.88 (0.625)	16.38 (0.645)	21.84 (0.860)	23.37 (0.920)	152 (6.0)
5702-80-00	ALUC-0500M0300R	1/2 (16)	–	300	0.25	15.88 (0.625)	16.38 (0.645)	21.84 (0.860)	23.37 (0.920)	152 (6.0)
5703-21-00	ALUC-0750M0030W	3/4 (21)	30	–	0.30	20.62 (0.812)	21.21 (0.835)	26.54 (1.045)	28.07 (1.105)	203 (8.0)
5703-35-00	ALUC-0750M0150R	3/4 (21)	–	150	0.30	20.62 (0.812)	21.21 (0.835)	26.54 (1.045)	28.07 (1.105)	203 (8.0)
5703-80-00	ALUC-0750M0300R	3/4 (21)	–	300	0.30	20.62 (0.812)	21.21 (0.835)	26.54 (1.045)	28.07 (1.105)	203 (8.0)
5704-21-00	ALUC-1000M0030W	1 (27)	30	–	0.47	25.40 (1.000)	26.42 (1.040)	33.02 (1.300)	35.05 (1.380)	254 (10.0)
5704-35-00	ALUC-1000M0150R	2 (27)	–	150	0.47	25.40 (1.000)	26.42 (1.040)	33.02 (1.300)	35.05 (1.380)	254 (10.0)
5705-15-00	ALUC-1250M0015W	1 1/4 (35)	15	–	0.58	31.75 (1.250)	33.02 (1.300)	39.37 (1.550)	41.40 (1.630)	318 (12.5)
5705-75-00	ALUC-1250M0075R	1 1/4 (35)	–	75	0.58	31.75 (1.250)	33.02 (1.300)	39.37 (1.550)	41.40 (1.630)	318 (12.5)
5706-15-00	ALUC-1500M0015W	1 1/2 (41)	15	–	0.76	38.10 (1.500)	40.00 (1.575)	46.99 (1.850)	49.53 (1.950)	381 (15.0)
5706-57-00	ALUC-1500M0045R	1 1/2 (41)	–	45	0.76	38.10 (1.500)	40.00 (1.575)	46.99 (1.850)	49.53 (1.950)	381 (15.0)
5707-15-00	ALUC-2000M0015W	2 (53)	15	–	0.98	50.80 (2.000)	52.83 (2.080)	59.69 (2.350)	62.23 (2.450)	508 (20.0)
5707-21-00	ALUC-2000M0030R	3 (53)	–	30	0.98	50.80 (2.000)	52.83 (2.080)	59.69 (2.350)	62.23 (2.450)	508 (20.0)
5708-15-00	ALUC-2500M0015W	2 1/2 (63)	15	–	1.46	63.50 (2.500)	N/A	72.64 (2.860)	77.72 (3.060)	635 (25.0)
5709-15-00	ALUC-3000M0015W	3 (78)	15	–	1.67	76.20 (3.000)	N/A	85.34 (3.360)	90.42 (3.560)	762 (30.0)
5710-15-00	ALUC-3500M0015W	3 1/2 (91)	15	–	1.89	88.90 (3.500)	N/A	98.04 (3.860)	103.12 (4.060)	889 (35.0)
5711-15-00	ALUC-4000M0015W	4 (103)	15	–	2.10	101.60 (4.000)	N/A	110.74 (4.360)	115.82 (4.560)	1016 (40.0)

UL Reduced Wall Steel Type RW FSC 5500 Series

Description

- Reduced Wall Flexible Steel Conduit
- High grade hot dipped zinc galvanized low carbon steel
- Interlocking design
- Corrosion resistant
- Trade sizes 1½–4 are made with no solder joints

Applications

Suitable for use in:

- Flexible Steel Conduit (FSC): A raceway of circular cross-section made of helically wound, interlocked galvanized steel strip.
- Accordance with NEC® Article 348 Flexible Metal Conduit Type FMC
- Exposed and concealed locations
- Utilization equipment per NEC® 348.20(A)(2)(a)
- Suitable as part of a listed assembly per NEC® 348.20(A)(2)(b)
- Equipment ground in accordance with NEC® 250.118(5)
- Other Spaces Used for Environmental Air (Plenums) per NEC® 300.22(C)
- Cable Trays per NEC® 392.10(A) and Table 392.10(A)
- Raceway for Tap Conductors for Luminaires per NEC® 348.20(A)(2)(c) and 410.117(C)
- Connection to a motor terminal enclosure per NEC® 430.223
- Class I Division 2 per NEC® 501.10(B)(2)(2)
- Neon Secondary-Circuit Wiring 1000V or Less per NEC® 600.31(A)
- Neon Secondary-Circuit Wiring Over 1000V per NEC® 600.32(A)(1)
- Manufactured Wiring Systems per 604.100(A)(2)
- Elevators, Dumbwaiters, Escalators, Moving walks, Platform and Stairway Chairlifts per NEC® 620.21
- Under Raised Floors per NEC® 645.5(E)(1)(b)(10)
- Solar Photovoltaic (PV) Systems per NEC® 690.31(A)
- Fuel Cell Systems per NEC® 692.31
- Wind Electric Systems per NEC® 694.30(A)
- Critical Operations Power Systems (COPS) where flexibility is required per NEC® 708.10(C)(1)(3)(b)
- Optical Fiber Cables for installation within buildings per NEC® 770.110(A)(1)
- Communications Circuit Wires and Cables for installation within buildings per NEC® 800.110(A)(1)
- Community Antenna Television and Radio Coaxial Cables for installation within buildings per NEC® 820.110(A)(1)
- Low and Medium Power Network-Powered Broadband Cables for installation within buildings per NEC® 830.110(A)(1)

References & Ratings

- NFPA 70:
  National Electric Code (NEC®) Articles 348, 250, 300, 392, 410, 423, 430, 501, 600, 604, 620, 645, 690, 692, 694, 708, 770, 800, 820 and 830
- UL 1
  Standard for Flexible Metal Conduit
  UL File Number E11831
  Federal Specification WW-C-566C
  superseded by UL 1
- UL 1479
  Fire Tests of Through-
  UL File Number R14141
  Penetration Firestops
  UL Classified Through-Penetrating Product for Use in Through-Penetration Firestop Systems
- NEMA RV 3
  Application and Installation Guidelines for Flexible and Liquidtight Flexible Metal Conduits
- C22.2 No. 56
  CSA Standard for Flexible Metal Conduit
  and Liquid-Tight
  Flexible Metal Conduit
  The ⅜ Trade Size is the only Type RW FMC that is CSA Certified

5500 Series Product Information

Ordering Information						Product Dimensions/Bend Radius		
Product Code	Trade Size (in)	Trade Size (mm)	Coil Length (ft)	Reel Length (ft)	Approx. Weight/ 100 feet (lbs)	Internal Diameter (min/max) (in)	External Diameter (min/max) (in)	Bend Radius (in)
5501-22-00*	3/8	12	25	–	17	0.375/0.393	0.560/0.610	2
5501-24-00*	3/8	12	50	–	17	0.375/0.393	0.560/0.610	2
5501-30-00*	3/8	12	100	–	17	0.375/0.393	0.560/0.610	2
5501-42-00*	3/8	12	250	–	17	0.375/0.393	0.560/0.610	2
5501-45-00*	3/8	12	–	500	17	0.375/0.393	0.560/0.610	2
5501-60-00*	3/8	12	–	1000	17	0.375/0.393	0.560/0.610	2
5502-22-00	1/2	16	25	–	27	0.625/0.645	0.860/0.920	3
5502-24-00	1/2	16	50	–	27	0.625/0.645	0.860/0.920	3
5502-30-00	1/2	16	100	–	27	0.625/0.645	0.860/0.920	3
5502-45-00	1/2	16	–	500	27	0.625/0.645	0.860/0.920	3
5502-60-00	1/2	16	–	1000	27	0.625/0.645	0.860/0.920	3
5503-22-00	3/4	21	25	–	35	0.812/0.835	1.045/1.105	4
5503-24-00	3/4	21	50	–	35	0.812/0.835	1.045/1.105	4
5503-30-00	3/4	21	100	–	35	0.812/0.835	1.045/1.105	4
5503-45-00	3/4	21	–	500	35	0.812/0.835	1.045/1.105	4
5503-60-00	3/4	21	–	1000	35	0.812/0.835	1.045/1.105	4
5504-24-00	1	27	50	–	51	1.000/1.040	1.300/1.380	5
5504-80-00	1	27	–	300	51	1.000/1.040	1.300/1.380	5
5505-24-00	1 1/4	35	50	–	63	1.250/1.300	1.550/1.630	6.25
5505-40-00	1 1/4	35	–	200	63	1.250/1.300	1.550/1.630	6.25
5506-22-00	1 1/2	41	25	–	76	1.500/1.575	1.850/1.950	7.50
5506-35-00	1 1/2	41	–	150	76	1.500/1.575	1.850/1.950	7.50
5506-80-00	1 1/2	41	–	300	76	1.500/1.575	1.850/1.950	7.50
5507-22-00	2	53	25	–	100	2.000/2.080	2.350/2.450	10
5507-30-00	2	53	–	100	100	2.000/2.080	2.350/2.450	10
5507-35-00	2	53	–	150	100	2.000/2.080	2.350/2.450	10
5508-22-00	2 1/2	63	25	–	165	2.500/–	2.860/3.060	12.5
5508-35-00	2 1/2	63	–	150	165	2.500/–	2.860/3.060	12.5
5509-22-00	3	78	25	–	197	3.000/–	3.360/3.560	15
5509-30-00	3	78	–	100	197	3.000/–	3.360/3.560	15
5510-22-00	3 1/2	91	25	–	230	3.500/–	3.860/4.060	17.5
5510-30-00	3 1/2	91	–	100	230	3.500/–	3.860/4.060	17.5
5511-22-00	4	103	25	–	263	4.000/–	4.360/4.560	20
5511-30-00	4	103	–	100	263	4.000/–	4.360/4.560	20

NOTE: All dimensions and weights are subject to normal manufacturing tolerances. *CSA certified. Review NEC® 348.60 and 250.118(5) for grounding requirements. Continuous length reels with no solder joints or connectors are available on sizes.

Review NEC® 348.60 and 250.118(5) for grounding requirements.

Non UL Steel 5200 Series

Description

- Non-UL Extra Flexible Steel Conduit
- High grade galvanized low carbon steel
- Interlocking design
- Corrosion resistant

Applications

- Flexible metal raceway for specific applications where UL and other agency approvals are not required
- Motor leads
- Made in USA of US and/or imported materials

Ordering Information						Product Dimensions/Bend Radius		
Product Code	Trade Size (in)	Trade Size (mm)	Coil Length (ft)	Reel Length (ft)	Approx. Weight/ 100 feet (lbs)	Internal Diameter (min/max) (in)	External Diameter (min/max) (in)	Bend Radius (in)
5201-42-00	3/8	12	250	–	8	0.375/0.393	0.560/0.610	2
5201-45-00	3/8	12	–	500	8	0.375/0.393	0.560/0.610	2
5201-60-00	3/8	12	–	1000	8	0.375/0.393	0.560/0.610	2
5203-30-00	1/2	16	100	–	16	0.625/0.645	0.860/0.920	3
5203-45-00	1/2	16	–	500	16	0.625/0.645	0.860/0.920	3
5203-60-00	1/2	16	–	1000	16	0.625/0.645	0.860/0.920	3
5204-30-00	3/4	21	100	–	21	0.812/0.835	1.045/1.105	4
5205-24-00	1	27	50	–	34	1.000/1.040	1.300/1.380	5
5206-24-00	1 1/4	35	50	–	42	1.250/1.300	1.550/1.630	6.25
5207-22-00	1 1/2	41	25	–	63	1.500/1.575	1.850/1.950	7.50
5208-22-00	2	53	25	–	84	2.000/2.080	2.350/2.450	10
5209-22-00	2 1/2	63	25	–	104	2.500/–	2.860/3.060	12.5
5210-22-00	3	78	25	–	125	3.000/–	3.360/3.560	15
5211-22-00	3 1/2	91	25	–	145	3.500/–	3.860/4.060	17.5
5212-22-00	4	103	25	–	165	4.000/–	4.360/4.560	20

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

Non UL Flexcon™ Steel 5100 Series

Description

AFC Cable Systems, Inc. FLEXCON EXTRA-FLEXIBLE STEEL CONDUIT is manufactured from one continuous length of high grade steel, hot dipped in a zinc bath for protection against the normal effects of corrosion. The steel strip is formed into interlocking convolutions firmly joined to assure a rugged yet very flexible conduit which provides exceptional flexibility for tight U-bend applications. The convolutions are manufactured to ensure smoother interior and exterior surfaces, which facilitate both cable and conduit pulling. The FlexCon installs easily with standard armored cable or flexible metal conduit connectors. The product is designed to be used for specific applications where Underwriters Laboratories Inc. or other agency approvals are not required.

Made in USA of US and/or imported materials.

Ordering Information					Product Dimensions/Bend Radius		
Product Code	Trade Size (in)	Trade Size (mm)	Coil Length (ft)	Approx. Weight/ 100 feet (lbs)	Internal Diameter (min/max) (in)	External Diameter (min/max) (in)	Bend Radius (in) (mm)
5101-24-00	3/8	12	50	11.8	0.375/0.400	0.520/0.540	1.250
5101-30-00	3/8	12	100	11.8	0.375/0.400	0.520/0.540	1.250
5101-42-00	3/8	12	250	11.8	0.375/0.400	0.520/0.540	1.250
5102-24-00	1/2	16	50	14.3	0.500/0.525	0.640/0.665	1.750
5102-30-00	1/2	16	100	14.3	0.500/0.525	0.640/0.665	1.750
5103-24-00	3/4	21	50	19.9	0.750/0.775	0.890/0.915	2.000
5103-30-00	3/4	21	100	19.9	0.750/0.775	0.890/0.915	2.000

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

Article 350 — Liquidtight Flexible Metal Conduit (LFMC)

Metric Designator	Trade Size	Over 2 Wires 40%		Over 2 Wires 60%		1 Wires 53%		2 Wires 31%		Nominal Internal Diameter		Total Area 100%	
		(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)
12	3/8	49	0.077	74	0.115	65	0.102	38	0.059	12.5	0.494	123	0.192
16	1/2	81	0.125	122	0.188	108	0.166	63	0.097	16.1	0.632	204	0.314
21	3/4	140	0.216	210	0.325	185	0.287	108	0.168	21.1	0.83	350	0.541
27	1	226	0.349	338	0.524	299	0.462	175	0.27	26.8	1.054	564	0.873
35	1 1/4	394	0.611	591	0.917	522	0.81	305	0.474	35.4	1.395	984	1.528
41	1 1/2	510	0.792	765	1.188	676	1.05	395	0.614	40.3	1.588	1276	1.981
53	2	836	1.298	1255	1.948	1108	1.72	648	1.006	51.6	2.033	2091	3.246
63	2 1/2	1259	1.953	1888	2.929	1668	2.587	976	1.513	63.3	2.493	3147	4.881
78	3	1931	2.99	2896	4.485	2559	3.962	1497	2.317	78.4	3.085	4827	7.475
91	3 1/2	2511	3.893	3766	5.839	3327	5.158	1946	3.017	89.4	3.52	6277	9.731
103	4	3275	5.077	4912	7.615	4339	6.727	2538	3.935	102.1	4.02	8187	12.692
129	5	—	—	—	—	—	—	—	—	—	—	—	—
155	6	—	—	—	—	—	—	—	—	—	—	—	—

*Corresponds to NEC 356.2(1).

Article 348 — Flexible Metal Conduit (FMC)

Metric Designator	Trade Size	Over 2 Wires 40%		Over 2 Wires 60%		1 Wires 53%		2 Wires 31%		Nominal Internal Diameter		Total Area 100%	
		(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)
12	3/8	30	0.046	44	0.069	39	0.061	23	0.036	9.7	0.384	74	0.116
16	1/2	81	0.127	122	0.19	108	0.168	63	0.098	16.1	0.635	204	0.317
21	3/4	137	0.213	206	0.32	182	0.283	106	0.165	20.9	0.824	343	0.533
27	1	211	0.327	316	0.49	279	0.433	163	0.253	25.9	1.02	527	0.817
35	1 1/4	330	0.511	495	0.766	437	0.677	256	0.396	32.4	1.275	824	1.277
41	1 1/2	480	0.743	720	1.115	636	0.985	372	0.576	39.1	1.538	1201	1.858
53	2	843	1.307	1264	1.961	1117	1.732	653	1.013	51.8	2.04	2107	3.269
63	1 1/2	1267	1.963	1900	2.945	1678	2.602	982	1.522	63.5	2.5	3167	4.909
78	3	1824	2.827	2736	4.241	2417	3.746	1414	2.191	76.2	3	4560	7.069
91	3 1/2	2483	3.848	3724	5.773	3290	5.099	1924	2.983	88.9	3.5	6207	9.621
103	4	3243	5.027	4864	7.54	4297	6.66	2513	3.896	101.6	4	8107	12.566

*Corresponds to NEC 356.2(1).

Article 356 — Liquidtight Flexible Nonmetallic Conduit (LFNC-A*)

Metric Designator	Trade Size	Over 2 Wires 40%		Over 2 Wires 60%		1 Wires 53%		2 Wires 31%		Nominal Internal Diameter		Total Area 100%	
		(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)
12	¾	50	0.077	75	0.115	66	0.102	39	0.06	12.6	0.495	125	0.192
16	½	80	0.125	121	0.187	107	0.165	62	0.097	16	0.63	201	0.312
21	¾	139	0.214	208	0.321	184	0.283	107	0.166	21	0.825	346	0.535
27	1	221	0.342	331	0.513	292	0.453	171	0.265	26.5	1.043	552	0.854
35	1¼	387	0.601	581	0.901	513	0.796	300	0.466	35.1	1.383	968	1.502
41	1½	520	0.807	781	1.211	690	1.07	403	0.626	40.7	1.603	1301	2.018
53	2	863	1.337	1294	2.006	1143	1.772	669	1.036	52.4	2.063	2157	3.343

*Corresponds to NEC 356.2(1).

Article 356 — Liquidtight Flexible Nonmetallic Conduit (LFNC-C*)

Metric Designator	Trade Size	Over 2 Wires 40%		Over 2 Wires 60%		1 Wires 53%		2 Wires 31%		Nominal Internal Diameter		Total Area 100%	
		(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)
12	⅜	47.7	0.074	71.5	0.111	63.2	0.098	36.9	0.057	12.3	0.485	119.19	0.185
16	½	77.9	0.121	116.9	0.181	103.2	0.16	60.4	0.094	15.7	0.62	194.778	0.302
21	¾	134.6	0.209	201.9	0.313	178.4	0.276	104.3	0.162	20.7	0.815	336.568	0.522
27	1	215	0.333	322.5	0.5	284.9	0.442	166.6	0.258	26.2	1.03	537.566	0.833
35	1¼	380.4	0.59	570.6	0.884	504.1	0.781	294.8	0.457	34.8	1.37	951.039	1.474
41	1½	509.2	0.789	763.8	1.184	674.7	1.046	394.6	0.612	40.3	1.585	1272.963	1.973
53	2	847.6	1.314	1271.4	1.971	1123.1	1.741	656.9	1.018	51.9	2.045	2119.063	3.285

*Corresponds to NEC 356.2(3).

Article 356 — Liquidtight Flexible Nonmetallic Conduit (LFNC-B*)

Metric Designator	Trade Size	Over 2 Wires 40%		Over 2 Wires 60%		1 Wires 53%		2 Wires 31%		Nominal Internal Diameter		Total Area 100%	
		(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)	(mm²)	(in²)
12	⅜	49	0.077	74	0.115	65	0.102	38	0.059	12.5	0.494	123	0.192
16	½	81	0.125	122	0.188	108	0.166	63	0.097	16.1	0.632	204	0.314
21	¾	140	0.216	210	0.325	185	0.287	108	0.168	21.1	0.83	350	0.541
27	1	226	0.349	338	0.524	299	0.462	175	0.27	26.8	1.054	564	0.873
35	1¼	394	0.611	591	0.917	522	0.81	305	0.474	35.4	1.395	984	1.528
41	1½	510	0.792	765	1.188	676	1.05	395	0.614	40.3	1.588	1276	1.981
53	2	836	1.298	1255	1.948	1108	1.72	648	1.006	51.6	2.033	2091	3.246

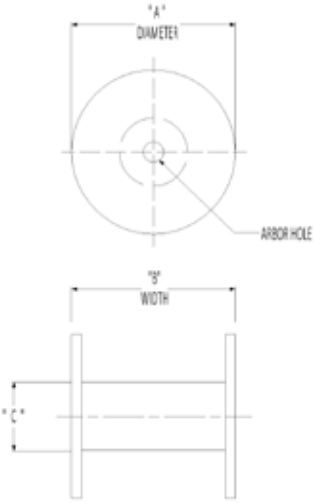
*Corresponds to NEC 356.2(2).

Reel Dimensions

Trade Size in (mm)	(MLT) LFMC - LSZH - VF				Flex Steel & Aluminum				(NMLT) LFNC-B - LFNC-A - NMPT-B			
	Length (ft)	Reels/ Pallet	Qty/ Pallet (ft)	Reel	Length (ft)	Reels/ Pallet	Qty/ Pallet (ft)	Reel	Length (ft)	Reels/ Pallet	Qty/ Pallet (ft)	Reel
⅜ (12)	500 1000 2500	12 6 1	6000 6000 2500	24x19x10 30x19x10 48x29x24	500 1000	12 12	6000 12000	24x12x10 24x12x10	—	—	—	—
½ (16)	500 1000 3500	12 6 1	6000 6000 3500	24x19x10 30x19x10 48x29x24	500 1000 4500	8 4 1	4000 4000 4500	24x18x10 30x19x10 48x33x22	500 1000 3500	8 4 1	4000 4000 3500	24x19x10 30x19x10 48x26x10
¾ (21)	500 1000 2000	6 3 1	3000 3000 2000	30x19x10 36x19x10 48x29x24	500 1000 2000 2500	4 2 1 1	2000 2000 2000 2500	30x18x10 36x24x17 48x28x24 48x33x22	500 700 1000	4 4 2	2000 2800 2000	30x19x10 30x19x10 36x20x12
1 (27)	400 1250	3 1	1200 1250	36x20x20 48x29x24	300 400 500 1000 1500	4 4 4 1 1	1200 1600 2000 1000 1500	30x18x10 30x18x10 36x24x17 30x16x12 48x33x22	500 1000	2 2	1000 2000	36x20x20 40x26x14
1¼ (35)	200 750	3 1	600 750	36x20x20 48x29x24	200 400 1000	6 2 1	1200 800 1000	30x18x10 36x24x17 48x33x22	100 250	4 2	400 500	28x20x18 36x20x20
1½ (41)	150 300 600	3 1 1	450 300 600	36x20x20 40x29x24 48x29x24	150 300 750	4 2 1	600 600 750	30x19x10 36x19x10 52x29x24	100 150	4 2	400 300	28x20x18 36x20x20
2 (53)	100 300 500	3 1 1	300 300 500	36x20x20 48x29x24 52x29x24	100 150 500	4 2 1	400 300 500	30x19x10 36x19x10 52x29x24	100	2	200	36x20x20
2½ (63)	100 275 500	1 1 1	100 275 500	40x29x24 58x33x30 58x33x24	100 150 275	1 1 1	100 150 275	36x19x10 40x29x24 48x29x24	—	—	—	—
3 (78)	100 175	1 1	100 175	48x29x24 58x33x30	100 175	1 1	100 175	40x29x24 48x29x24	—	—	—	—
3½ (91)	100 175	1 1	100 175	58x33x30 58x33x30	100	1	100	48x29x24	—	—	—	—
4 (103)	100	1	100	58x33x30	100	1	100	48x29x24	—	—	—	—

Reel Dimensions

A		B		C		Ture Weight		Arbor Hole
(in)	(cm)	(in)	(cm)	(in)	(cm)	(lbs)	(kg)	(in)
24.0	61.0	12	30.5	10	25.4	15.0	6.8	1 9/16
24	61.0	18	45.7	10	25.4	17.0	7.7	1 9/16
24	61.0	19	48.3	10	25.4	17.0	7.7	2
28	71.1	20	50.8	18	45.7	23.0	10.4	2 1/16
30	76.2	16	40.6	12	30.5	22.0	10.0	2 1/16
30	76.2	18	45.7	10	25.4	18.0	8.2	1 9/16
30	76.2	19	48.3	10	25.4	24.0	10.9	2 1/16
36	91.4	19	48.3	10	25.4	36.0	16.3	2 1/16
36	91.4	20	50.8	12	30.5	33.0	15.0	1 9/16
36	91.4	20	50.8	20	50.8	40.0	18.1	2 1/16
36	91.4	24	61.0	17	43.2	40.0	18.1	3 1/16
40	101.6	26	66.0	14	35.6	42.0	19.1	1 9/16
40	101.6	29	73.7	24	61.0	54.0	24.5	2 1/16
48	121.9	26	66.0	10	25.4	63.0	28.6	2 1/16
48	121.9	28	71.1	24	61.0	66.0	29.9	3 1/16
48	121.9	29	73.7	24	61.0	72.0	32.7	2 1/16
48	121.9	33	83.8	22	55.9	74.0	33.6	3 1/16
52	132.1	29	73.7	24	61.0	76.0	34.5	2 1/16
58	147.3	33	83.8	24	61.0	90.0	40.8	2 1/16
58	147.3	33	83.8	30	76.2	95.0	43.1	2 1/16



Carton Dimensions

Trade Size in (mm)	Carton Size: L x W x H in. (cm.) (MLT) LFMC - LSZH - VF			Length/ Carton ft (m)	Carton Size: L x W x H in. (cm.) NMLT) LFNC-B - LFNC-A - NMPT-B			Length/ Carton ft (m)	Pallet Size		Cartons/ Pallet	
	L	W	H		L	W	H		(MLT) LFMC LSZH VF	(NMLT) LFNC-B LFNC-A NMPT-B	(MLT) LFMC LSZH VF	NMLT) LFNC-B LFNC-A NMPT-B
⅜ (12)	17.5 (44.45)	5.75 (14.61)	17 (43.18)	100 (30.48)	17.5 (44.45)	5.75 (14.61)	17 (43.18)	100 (30.48)	48x40x5	48x40x5	32	32
½ (16)	17.5 (44.45)	5.75 (14.61)	17.5 (44.45)	100 (30.48)	17.5 (44.45)	5.75 (14.61)	17.5 (44.45)	100 (30.48)	48x40x5	48x40x5	32	32
¾ (21)	18.5 (46.99)	8.5 (21.59)	17.5 (44.45)	100 (30.48)	18.5 (46.99)	8.5 (21.59)	17.5 (44.45)	100 (30.48)	48x40x5	48x40x5	24	24
1 (27)	23.5 (59.69)	9.25 (23.5)	23 (58.42)	100 (30.48)	23.5 (59.69)	9.25 (23.5)	23 (58.42)	100 (30.48)	48x48x5	48x40x5	20	20
1¼ (35)	23.25 (59.1)	7.88 (20.01)	22.75 (57.8)	50 (15.24)	23.25 (59.1)	7.88 (20.01)	22.75 (57.8)	50 (15.24)	48x48x5	48x40x5	20	20
1½ (41)	32 (81.28)	7.5 (19.05)	32 (81.28)	50 (15.24)	32 (81.28)	7.5 (19.05)	32 (81.28)	50 (15.24)	48x40x5	48x40x5	7	12
2 (53)	38 (96.52)	8 (20.32)	38 (96.52)	50 (15.24)	38 (96.52)	8 (20.32)	38 (96.52)	50 (15.24)	48x40x5	48x40x5	6	12
2½ (63)	32 (81.28)	10 (25.4)	33 (83.82)	50 (15.24)	—	—	—	—	48x40x5	—	5	—
3 (78)	36 (91.44)	10 (25.4)	36.5 (92.71)	25 (7.62)	—	—	—	—	48x40x5	—	5	—
3½ (91)	54 (137.2)	7 (17.78)	52.5 (133.4)	25 (7.62)	—	—	—	—	56x56x5	—	5w	—
4 (103)	54 (137.2)	7 (17.78)	52.5 (133.4)	25 (7.62)	—	—	—	—	56x56x5	—	5	—

Flex Coil Qty/Pallet

Trade Size in (mm)	Length/ Carton		Pallet Size	Coils/ Pallet	Coils
	(ft)	(m)	Flex Steel & Alum	Flex Steel & Alum	Total Footage/ Pallet
⅜ (12)	100	(30.48)	48x40x5	36	3600
½ (16)	100	(30.48)	48x40x5	32	3200
¾ (21)	100	(30.48)	48x40x5	20	2000
1 (27)	50	(15.24)	48x40x5	24	1200
1¼ (35)	50	(15.24)	48x40x5	15	750
1½ (41)	25	(7.62)	48x40x5	12	300
2 (53)	25	(7.62)	48x40x5	12	300
2½ (63)	25	(7.62)	48x40x5	12	300
3 (78)	25	(7.62)	48x40x5	5	125
3½ (91)	25	(7.62)	48x40x5	4	100
4 (103)	25	(7.62)	48x40x5	4	100

Chemical Resistance/Reference Information

Jacket Material Key

PVC = Polyvinyl Chloride
TPE = Thermoplastic Elastomer
TPU = Thermoplastic Polyurethane

Rating Key

E = Resistant: Good for continuous exposure
G = Good for intermittent exposure
F = Use only where limited life is acceptable
X = Do not use

		Jacket Material		
Chemical	%	PVC	TPE	TPU
A				
ASTM® Fuel A		F	G	G
ASTM® Fuel B		X	F	F
ASTM® Fuel C			F	F
ASTM® Oil No. 1		G	G	G
ASTM® Oil No. 2				G
ASTM® Oil No. 3		F		G
Acetaldehyde				
Acetamide				
Acetate Solvents		X		
Acetic Acid (Glacial)		F		G
Acetic Acid	40	G	E	G
Acetic Acid	10	G	E	G
Acetic Anhydride		X		
Acetone		X		X
Acetyl Bromide				
Acetyl Chloride				
Acetylene				
Acrylonitrile		E	E	
Adipic Acid				
Alcohols				
Alcohols (Aliphatic)		F		
Alkalies		E		
Allyl Alcohol				
Aluminum Salts		E		
Aluminum Chloride		E		G
Aluminum Sulfate (Alums)		E		
Aluminum Sulfide				
Alums				
Ammonia				G
Ammonia (Dry Gas)		E		G
Ammonia (Anhydrous Liquids)		X		
Ammonia (Aqueous)		E		
Ammoniated Latex		E		
Ammonium Acetate				
Ammonium Carbonate				
Ammonium Chloride		E		G
Ammonium Chloride	10	E		
Ammonium Hydroxide		E		
Ammonium Nitrate				

Chemical Resistance/Reference Information

Atkore

Jacket Material

Chemical	%	PVC	TPE	TPU
A				
Ammonium Persulfate				
Ammonium Salts				
Ammonium Sulfate				
Ammonium Sulfide				
Ammonium Thicyanide				
Amyl Acetate		X		
Amyl Alcohol				
Amyl Chloride				
Aniline		E		X
Aniline Hydrochloride				
Aniline Oils		X		
Animal Fats & Oils		E		
Aniseed Oil				
Anthracene		X		
Antifreeze Compounds	50/50		E	
Antimony Salts				
Aqua Regia				
Aromatic Fuels		X		
Aromatic Hydrocarbons		X		
Arsenic Salts				
Asphalt		X		
Attar of Roses				
B				
Banana Oil X		X		
Barium Carbonate				
Barium Chloride		E		
Barium Hydroxide		E		
Barium Salts				
Barium Sulfide		E		
Battery Acid				
Benzaldehyde				
Benzaldehyde				
Benzene		X	X	X
Benzine (Petroleum Ether)		F		
Benzoic Acid				
Benzole				
Benzyl				X
Bitumen				
Borax		E		
Bordeaux Mixture		E		
Boric Acid		E		G

Jacket Material

Chemical	%	PVC	TPE	TPU
B				
Brake Fluid			E	
Brake Fluid A				X
Brine		E		
Bromine		X	X	
Bromobenzene			X	
Bunker Oil				
Butane				G
Butanol				
Butyl Acetate		X	E	X
Butyl Alcohol		G		X
Butylene Glycol				
Butyric Acid				
C				
Calcium Carbonate				
Calcium Chloride	20	E	E	G
Calcium Chloride	10	E	E	G
Calcium Hydroxide		E		
Calcium Hypochlorite		E		
Calcium Nitrate				
Calcium Sulfate				
Camphor				
Carbolic Acid (Phenol)		G		
Carbon Dioxide		E		
Carbon Disulfide		X		
Carbon Tetrachloride		X		X
Carbonic Acid		E		
Casein		E		
Castor Oil		E		
Catechol				
Caustic Soda		E		E
Cello-Solv X				
Chlorinated Hydrocarbons X				
Chlorinated Lime				
Chlorine				X
Chlorine (water solution)	40	F		G
Chlorine Gas (Dry & Wet)		X		
Chloroacetic Acid				
Chlorobenzene		X		X
Chlorobromomethane				
Chloroform		X		X
Chrome Baths				

Chemical Resistance/Reference Information

Jacket Material Key

PVC = Polyvinyl Chloride
TPE = Thermoplastic Elastomer
TPU = Thermoplastic Polyurethane

Rating Key

E = Resistant: Good for continuous exposure
G = Good for intermittent exposure
F = Use only where limited life is acceptable
X = Do not use

		Jacket Material		
Chemical	%	PVC	TPE	TPU
C				
Chromic Acid	40	F		X
Chromic Acid	10	G		
Chromic Acid	1	E		
Chromium Potassium Sulfate				
Chromium Salts				
Citric Acid		E		
Coal Tar		X		
Coconut Oil		F		
Copper Salts				
Corn Oil		E		
Cottonseed Oil		F		
Creosote		X		
Cresol		F		
Cresylic Acid		X		
Cupric Chloride				
Cupric Nitrate				
Cupric Sulfate				
Cyclohexane		G	X	X
Cyclohexanol				
Cyclohexanone		G		
D				
DDT Weed Killer		E		
DOP				
DTE Oil				
Decalin				
Degreasing Fluids		X		
Detergents (dishwashing)		E	E	
Diisocyanate		F		
Di Methyl Formamide		X		
Di Methyl Hydrazine		X		
Di-isodecyl Phthalate		X		
Dibutyl Ether				
Dibutyl Phthalate		X		
Dichlorobenzene				
Dichloroethylene		X		
Diesel Fuel		X		G
Diesel Oils		F		
Diester Oil				
Diethyl Ether		E	E	

Atkore

Jacket Material

Chemical	%	PVC	TPE	TPU
D				
Diethylene Glycol		G		
Dimethyl Acetamide				
Dimethyl Formamide			E	
Dioctyl Phthalate (DOP)		X	E	E
Dioxane			E	
Dodecyl Mercaptan				
Dow General Weed Killer (H20)		G		
Dow General Weed Killer (Phenol)		X		
Dowtherm				
E				
Edible Fats and Oils				
Esters		X		
Ether		X		X
Ethyl Acetate		X		X
Ethyl Alcohol (Ethanol)		F	E	X
Ethyl Bromide				
Ethyl Chloride				
Ethylene Chloride				G
Ethylene Dichloride		X		
Ethylene Glycol	50	G		G
Ethylene Oxide		X		
F				
Fatty Acids		E		
Ferric Chloride		E		G
Ferric Nitrate				
Ferric Sulfate		E		
Ferrous Chloride		E		
Ferrous Sulfate		E		
Flourochlorohydrocarbons				
Formaldehyde	40	X		
Formalin				
Formamide				
Formic Acid	85			X
Formic Acid	40			X
Formic Acid	10	E		X
Freon			F	X
Freon 12				X
Freons		X		
Fuel Oil		G		
Furfurol		F		

Jacket Material

Chemical	%	PVC	TPE	TPU
G				
Gallic Acid		E		
Gasoline - 100 Octane		F		X
Glycerine		E	E	E
Glycol				E
Glycolic Acid				
Grease		E	G	E
Green Sulfate Liquor		E		
H				
Heptachlor in Petroleum Solvents		E		
Heptane		F		G
Hexane		F	G	G
Hydraulic Fluids - Ester Base		X		
Hydraulic Fluids - Petroleum Base		F		
Hydrazine				
Hydrobromic Acid		E		
Hydrocarbon Oil				
Hydrochloric Acid (Muriatic)	40	F		
Hydrochloric Acid	10	G	E	
Hydrochloric Acid	1	E	E	
Hydrocyanic Acid				
Hydrofluoric Acid	70	X		
Hydrofluoric Acid 10	10			
Hydrofluoroboric Acid	40	F		
Hydrofluoroboric Acid	10	G		
Hydrogen				
Hydrogen Chloride				G
Hydrogen Chloride				G
Hydrogen Fluoride				
Hydrogen Peroxide	30	G		
Hydrogen Peroxide	10	E		
Hydrogen Peroxide	2	E		E
Hydrogen Sulfide				
Hydraulic Fluid				G
Hydroiodic Acid				
I				
Ink				
Iodine Solution X				X
Iron Salts - Acid Soln.				
Iron Salts - Neut. Soln.				
Isooctane		F		
Isopropanol				

Chemical Resistance/Reference Information

Jacket Material Key

PVC = Polyvinyl Chloride
TPE = Thermoplastic Elastomer
TPU = Thermoplastic Polyurethane

Rating Key

E = Resistant: Good for continuous exposure
G = Good for intermittent exposure
F = Use only where limited life is acceptable
X = Do not use

		Jacket Material		
Chemical	%	PVC	TPE	TPU
I				
Isopropyl Acetate		X		
Isopropyl Alcohol		G		X
J				
JP-4 Oil				
Jet Fuels (JP-3, 4, and 5)		F		
K				
Kerosene		F		G
Ketones		X		
L				
Lacquer Thinners		X		
Lactic Acid	90			F
Lactic Acid	50			F
Lactic Acid	5			F
Lanolin				
Lead Acetate				
Lead Salts				
Linseed Oil		E		
Lox				
Lubricating Oils, Greases, Soaps		E		
M				
MIL-D-5606 Oil				
MIL-L-7808 Oil				
Magnesium Chloride		E		G
Magnesium Hydroxide	10	E		
Magnesium Salts				
Magnesium Sulfate		E		
Malathion 50 in Aromatics		X		
Malic Acid		E		
Mercury				
Mercury Salts				
Methanol	10			X
Methyl Acetate		X		X
Methyl Alcohol		F		
Methyl Bromide		X		
Methylene Chloride		X		X
Methyl Ethyl Ketone		X	E	X
Methyl Glycol				X
Methyl Isobutyl Ketone		X		
Mineral Oil		E		G
Monochlorobenzene		X		
Motor Fuels				
Motor Oil 20W				G

Atkore

Jacket Material

Chemical	%	PVC	TPE	TPU
M				
Muriatic Acid (See Hydrochloric Acid)				
N				
Naphtha		F		E
Naphthalene		X		
Natural Gas				
Nickel Salts				
Nitric Acid		X		X
Nitric Acid	70	F		X
Nitric Acid	35	G		X
Nitric Acid	10	E		X
Nitrobenzene		X	E	
Nitrogen				
Nitromethane				
Nitropropane		X		
N-Methyl Pyrrolidone				X
O				
Octane				
Oil of Turpentine				
Oleic Acid		E		
Oleum		X		
Oxalic Acid		E		
Oxygen				
Oxygen - Liquid				
Ozone				
P				
Paint		X		
Paint Thinners		X		
Palmitic Acid		E		
Paper Chemicals				
Paraffin Oil				G
Pentachlorophenolin Oil		G		
Pentane		F		
Perchloric Acid	70	X		
Perchloric Acid	10	E		
Perchloroethylene		X		X
Petroleum				G
Petroleum Ether		F		
Petroleum Spirits				
Phenol		G		

Jacket Material

Chemical	%	PVC	TPE	TPU
P				
Phenyl Ethyl Alcohol				
Phosphoric Acid	85	E		X
Phosphoric Acid	50	E		X
Phosphoric Acid	10	E		X
Photographic Developer		E		
Phthalates		X		
Pitch		G		
Plasticizers (Phthalates, Phosphates)				
Polyester Resin with Styrene				
Potash				
Potassium Bromide				
Potassium Chlorate				
Potassium Chloride	40			G
Potassium Cyanide				
Potassium Hydroxide	50	E		G
Potassium Hydroxide	10	E	E	G
Potassium Iodide				
Potassium Nitrate				
Potassium Permanganate	5			X
Potassium Salts				
Potassium Sulfate				
Power Steering Fluid		X		
Propane		E		
Propanol			E	
Propyl Alcohol		G		
Propylene Glycol		E		
Pydraul		X		
Pydraul Oil			G	
Pyridine			E	X
R				
Resorcinol				
Ritchfield "A" Weed Killer		F		
S				
SEA No. 10 Oil				
Salicylic Acid				
Salt				
Seawater		E	E	E
Silicic Acid				
Silicone Oil		E		

Chemical Resistance/Reference Information

Jacket Material Key

PVC = Polyvinyl Chloride
TPE = Thermoplastic Elastomer
TPU = Thermoplastic Polyurethane

Rating Key

E = Resistant: Good for continuous exposure
G = Good for intermittent exposure
F = Use only where limited life is acceptable
X = Do not use

Chemical	%	Jacket Material PVC	TPE	TPU
S				
Silver Nitrate		F		
Silver Salts				
Skydrol Oil - Type B		X	E	X
Soap				
Soap Solution				
Sodium Acetate				
Sodium Bicarbonate				
Sodium Bisulfite				
Sodium Borate				
Sodium Bromide				
Sodium Carbonate				
Sodium Carbonate				
Sodium Chlorate				
Sodium Chloride	15		E	G
Sodium Chlorite				
Sodium Cyanide		E		
Sodium Dichromate				
Sodium Ferrocyanide				
Sodium Fluoride				
Sodium Hydrosulfite				
Sodium Hydroxide		G		X
Sodium Hydroxide	50	E	E	X
Sodium Hydroxide	10	E	E	G
Sodium Hypochlorite	PH13	G		E
Sodium Nitrate				
Sodium Nitrate				
Sodium Nitrite				
Sodium Perborate				
Sodium Phosphate				
Sodium Silicate				
Sodium Sulfate				
Sodium Sulfide				
Sodium Sulfite				
Sodium Thiosulfate				
Solvent Naphtha				
Solvesso		X		
Soybean Oil		F		
Stoddard Solvent		X		
Styrene		X		
Sulfur				
Sulfur Dioxide				

Atkore

Jacket Material

Chemical	%	PVC	TPE	TPU
S				
Sulfur Dioxide (Liquid)		X		
Sulfuric Acid		X	E	X
Sulfuric Acid	75	F	E	X
Sulfuric Acid	60	G	E	X
Sulfuric Acid	40	E	E	X
Sulfuric Acid	25	E	E	F
Sulfuric Acid	10	E	E	G
Sulfurous Acid	40	G		
T				
Tall Oil X		X		
Tallow				
Tannic Acid		E		
Tar				
Tartaric Acid				
Tea				
Tetra Ethyl Lead		X		
Tetra Hydro Furan		X		X
Tetrachloroethylene				X
Tetraline				
Thionyl Chloride				
Tin Salts				
Titanium Salts				
Toluene		X		X
Toluol		X		
Transformer Oil				
Transmission Oil			F	
Trichloroethane		X		
Trichloroethylene		X	X	X
Trichloroacetic Acid				
Tricresyl Phosphate				
Tricresyl Phosphate (Skydrol)		X		X
Triethanol Amine		F		
Trisodium Phosphate		E		
Tung Oil		F		
Turpentine		F	F	G
U				
Urea				
V				
Varnish				
Varsol		X		
Vaseline				

Jacket Material

Chemical	%	PVC	TPE	TPU
V				
Vegetable Oils and Juices		E		
Vinegar		E		
Vinyl Chloride		X		
W				
Water		E	E	
Water 23° C				
Water 70° C				
Wax				
Wood Preservatives		X		
X				
Xylene		X	F	X
Xylols X		X		
Z				
Zinc Chloride		E	E	
Zinc Sulfate		E		

Since 1926

Atkore™
AFC Cable Systems

Atkore™
Kaf-Tech

Safety Data Sheets (SDS) Liquid-Tuff™ Flexible Conduits

Visit atkore.com/sds for SDS information

Building better together.

As the leader in infrastructure solutions, Atkore has brought together the brands that you've trusted for years, allowing us to better partner with those who are building what's next.

Atkore™

Allied Tube & Conduit ▲ AFC Cable Systems ▲ Heritage Plastics ▲ UnistrutUnistrut Construction ▲ Cope
US Tray ▲ Calbrite ▲ Calbond ▲ Kaf-Tech ▲ Columbia-MBF ▲ Eastern Wire + Conduit ▲ ACS/Uni-Fab ▲ Cii
Power-Strut ▲ Calconduit ▲ Razor Ribbon ▲ Calpipe Security ▲ FRE Composites ▲ Vergokan ▲ Flexicon ▲ Marco

Learn more at atkore.com

Atkore™

Allied Tube & Conduit ▲ **AFC Cable Systems** ▲ **Heritage Plastics** ▲ **Unistrut**
Unistrut Construction ▲ **Cope** ▲ **US Tray** ▲ **Calbrite** ▲ **Calbond** ▲ **Kaf-Tech**
Columbia-MBF ▲ **Eastern Wire + Conduit** ▲ **ACS/Uni-Fab** ▲ **Cii**
Power-Strut ▲ **Calconduit** ▲ **Razor Ribbon** ▲ **Calpipe Security**
FRE Composites ▲ **Vergokan** ▲ **Flexicon** ▲ **Marco**

Atkore
960 Flaherty Drive
New Bedford, MA 02745

TOLL FREE / 800-757-6996
FAX / 508-998-1447

atkore.com/afc
atkore.com/kaftech

Want to join a company that helps you build the mindset, skill set and tool set for success? Visit us at atkore.com/careers