

FIBER-GUARD®/LSZH

LOW SMOKE ZERO HALOGEN

Specialty Conduit

LSZH CONDUIT

June 2008



Fiber-Guard Low Smoke Zero Halogen

Features & Benefits

- *Flame retardant low flame propagation (UL 94 V-0).*
- *Very low smoke generation for better visibility.*
- *No halogens, safer to use in confined spaces.*
- *Minimal acid combustion by products, less damaging to personnel and equipment.*
- *Coilable in long lengths for easier, faster cable installations.*
- *Excellent tensile strength for pulling into place.*
- *Excellent crush resistance for cable protection.*
- *Excellent (IZOD) cold temperature impact resistance.*
- *Available with color stripes for easy identification.*

GENERAL INFORMATION:

Fiber-Guard®/LSZH (Low Smoke Zero Halogen) is designed for installation in transportation tunnels and other areas where it would be desirable to eliminate release of halogen gas by products due to fire. Due to an increasing awareness, LSZH is designed to significantly reduce the toxic and corrosive side effects caused by fire on humans and sensitive electronic equipment in confined spaces. Use as an innerduct, pulled into steel conduit, in cable tray or directly attached to tunnel walls.

FAST AND EFFICIENT INSTALLATION

Its rugged yet flexible design makes installation easy. Fiber-Guard®/LSZH is available with Bull-Line pull tape factory installed eliminating the need for field installation, helping to reduce cable installation costs.

FLAME RETARDANT PROPERTIES:

Property and Test	Results
Oxygen Index (ASTM D 2863)	>32%
IZOD, notched at -25°C	5.2 Ft-Lb/in
Acid Gas (MIL-C-24643)	<5 mg
Smoke Index NBS/ASTM E662	120 Ds 4-min, max
UL 94 V-0	1/16"



LSZH vs PVC



LSZH conduit entering tunnel into metallic tray.



Transition from Aerial to LSZH using Split-Lock coupler.

CONDUIT SPECIFICATIONS

- Minimizes Flame Propagation per UL 1581, vertical tray flame test.
- Halogen free Non Metallic type conduit
- Four standard wall choices schedules 40 or 80 and SDR's 13.5 and 11 per ASTM F 2160.
- Marked with sequential foot markings (standard).

OPTIONAL ITEMS

- Available with Bull-Line pull tape installed.

DIMENSIONAL AND WEIGHT TABLE

Types>		Schedule 40			Schedule 80			SDR 13.5			SDR 11.0		
Nominal Size	Avg. OD (inch)	Avg. Wall	Avg. ID (inch)	Wt/Ft (lbs.)	Avg. Wall	Avg. ID (inch)	Wt/Ft (lbs.)	Avg. Wall	Avg. ID (inch)	Wt/Ft (lbs.)	Avg. Wall	Avg. ID (inch)	Wt/Ft (lbs.)
3/4"	1.050	0.120	0.804	0.233	0.163	0.722	0.297	0.083	0.874	0.173	0.100	0.840	0.208
1"	1.315	0.141	1.029	0.343	0.189	0.936	0.437	0.103	1.101	0.264	0.126	1.057	0.326
1-1/4"	1.660	0.148	1.360	0.463	0.202	1.255	0.604	0.131	1.394	0.415	0.160	1.338	0.520
1-1/2"	1.900	0.154	1.590	0.553	0.212	1.476	0.732	0.150	1.598	0.540	0.183	1.533	0.681
2"	2.375	0.163	2.047	0.472	0.231	1.913	1.013	0.187	2.002	0.835	0.229	1.914	1.005
2-1/2"	2.875	0.215	2.445	1.171	0.293	2.290	1.546	0.229	2.423	1.224	0.277	2.322	1.471
3"	3.500	0.229	3.042	1.532	0.318	2.864	2.070	0.275	2.951	1.812	0.337	2.826	2.181
Hybrid Sizes					Other wall types and sizes can be made available. Minimum quantities or set-up charges may apply. Note all dimensions are averages. More detailed specifications can be made available upon request.								
1"	1.259	.129	1.000	0.355									
1-1/4"	1.590	.170	1.250	0.415									

RECOMMENDED COUPLERS AND SUPPORT BRACKETS FOR FIBER-GUARD®/LSZH



Mor-Clamp Coupler: Stainless steel, 4-bolt gasketed coupler provides support and water-tight connectors of LSZH conduit.



Bracket system available in LSZH material.

NOTE: A-D Technologies has made every attempt to assure that the information contained in this product bulletin is accurate. The information supplied may change without notice. This information is intended to inform the reader of the typical characteristics of the pipe and accessories that are described and should not be considered complete with regard to design considerations. Contact a representative regarding any questions about this document and to determine if the information contained within is current.

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