SCHEDULE 80 LSZH DUCT

flame-retardant duct

APPLICATIONS

Schedule 80 LSZH duct is for use in facilities where flammability and smoke generation are a concern. It is a non-metallic duct made of modified polyethylene (PE) with low-smoke and flame-retardant additives.

Schedule 80 duct can be supplied as an empty tube or either a pull line or with Draka cables preinstalled. It is shipped with sealed ends to prevent entry of moisture and other contaminants.

Note: because this duct is made of modified material, it does not precisely subscribe to the usual standards for duct, such as ATSM D-1248. However, it does comply dimensionally with ASTM D-2447 for Schedule 80.

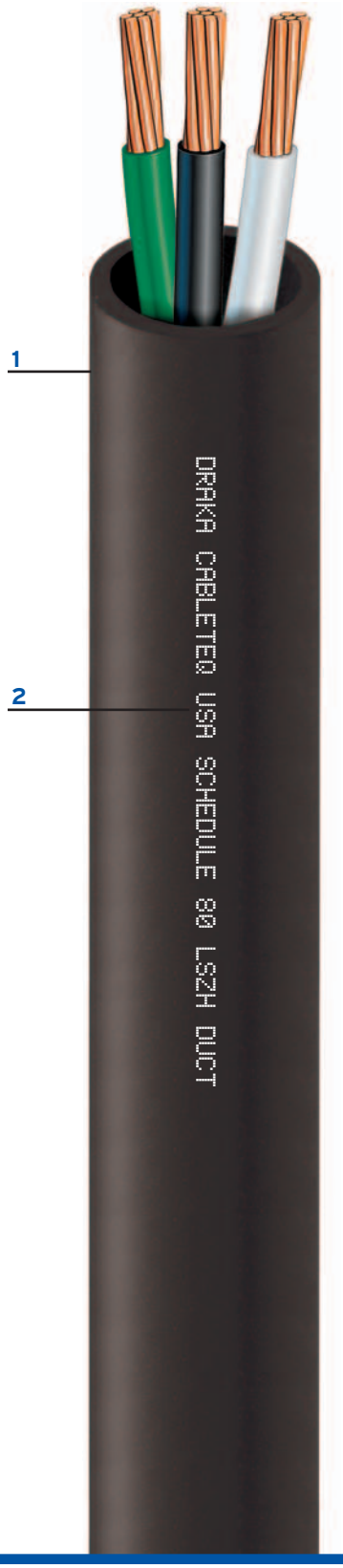
Can be encased in concrete.

FEATURES

1. **DUCT**
   Modified PE with low smoke and flame-retardant additives. Schedule 80 duct is available in sizes from 1 to 3 inches in diameter. Different colors and duct with a molded-in longitudinal stripe for identification are available.
2. **SURFACE MARKING**
   The jacket surface shall be printed or indented with:
   DRAKA CABLETEQ USA-PA TAMAQUA CABLE SCHEDULE 80 LSZH DUCT, SIZE OF DUCT (I.E. 1.25 INCH) YEAR OF MANUFACTURE (I.E. 2006), SEQUENTIAL FOOTAGE EVERY TWO FEET.

RATINGS

GR-356-CORE for Fiber Optic Duct
ASTM D-2447 Schedule 80 dimensions.
ASTM D-6070 for physical properties
UL-1581 Vertical Tray Flame Test
NEMA TC-7 Compression & Recovery
NEMA TC-7 Crush Resistance NEMA TC-7
NEMA TC-7 Impact Test (room temp)
NEMA TC-7 Impact Test (-20° C)
ASTM D-2863 Limiting Oxygen Index
ASTM D-169 Environmental Stress Cracking



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SCHEDULE 80 LSZH DUCT

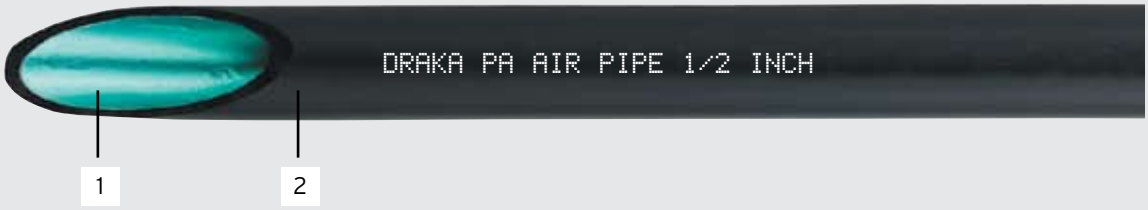
flame-retardant duct

Duct Size in (mm)	Outer Diameter in (mm)	Wall Thickness in (mm)	Physical Properties for all duct sizes	Minimum Test Method	Test Requirement
1.00 (25.4)	1.315 (33.4)	0.133 (3.4)	Compression & Recovery	NEMA TC-7	85% minimum
1.25 (31.8)	1.660 (42.1)	0.140 (3.6)	Crush Resistance	NEMA TC-7	NEMA TC-7 Table 4-1
1.50 (38.1)	1.900 (48.3)	0.145 (3.7)	Impact Test (room temp)	NEMA TC-7	No cracks > 30% max
2.00 (50.8)	2.375 (60.3)	0.154 (3.9)	Impact Test (-20° C)	NEMA TC-7	No cracks > 30% max
2.50 (63.5)	2.875 (73.0)	0.203 (5.2)	Limiting Oxygen Index	ASTM D-2863	28 minimum
3.00 (76.2)	3.500 (88.9)	0.216 (5.5)	Environmental Stress Cracking 192 hr. exposure, 100% Igepal CO-630	ASTM D-1693, Test Condition	CNo cracks > 20% max
			Vertical Tray Flame Test	UL-1581	No propagation

Information is subject to change without notice. Consult factory for a variety of alternate constructions for specific applications.

Air Pipe 1/2 Inch

HDPE duct with inner tape shield



Applications

Preventing moisture from attacking underground cables is a challenge. In an effort to eliminate this problem, telephone companies, through the use of air pipe, flow pressurized dry air directly into the communication cable. The air flow begins at a central location and is pressurized with the use of manifolds at various locations throughout the system.
Air pipe is the perfect choice for your air pressure system applications.

Features

MADE IN THE USA

1. ARMOR

A 6 mil aluminum tape, coated with a polymer on both sides, longitudinally applied with a 1/8" overlap.

2. OUTER JACKET

Black high-density polyethylene (HDPE). Other colors available upon request.

Ratings

Tested to Telcordia standards

Air Pipe 1/2 Inch

HDPE duct with inner tape shield

Air Pipe Sixe in (mm)	Nominal Pipe Inner Diameter in (mm)	Average Pipe Wall Thickness in (mm)	Nominal Pipe Outer Diameter in (mm)	Nominal Pipe Weight Lbs/Mft (Kg/Km)
0.500 (12.7)	0.593 (15.1)	0.060 (1.52)	0.725 (18.4)	63 (94)

Consult factory for a variety of alternate constructions for specific applications.

The data herein is approximate and subject to normal manufacturing tolerances. These specifications are subject to change without notice.

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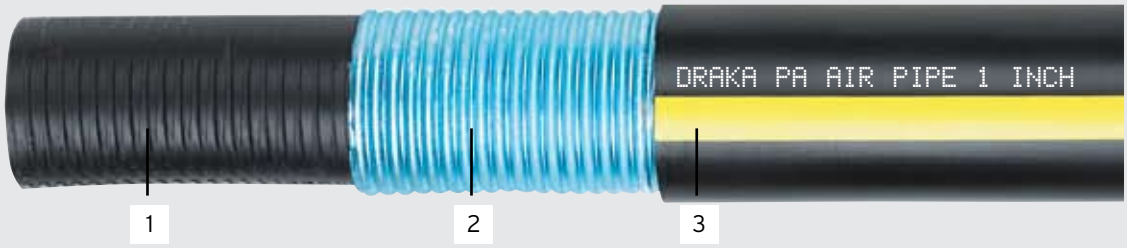
IND WEB08 1010

For sales and technical information, contact:
Draka Engineered Specialties | 1-800-233-3190 | 1-570-385-4381 | 1-570-385-1092 fax | www.drakausa.com

Air Pipe 1 Inch

HDPE duct with aluminum armor



Applications

Preventing moisture from attacking underground cables is a challenge. In an effort to eliminate this problem, telephone companies, through the use of air pipe, flow pressurized dry air directly into the communication cable. The air flow begins at a central location and is pressurized with the use of manifolds at various locations throughout the system.

Air Pipe is the perfect choice for your air pressure system applications.

Features

MADE IN THE USA

1. INNER PIPE
Black HDPE.

2. ARMOR
An 8 mil corrugated aluminum tape coated with a polymer on both sides, longitudinally applied with a 1/8" overlap.

3. OUTER JACKET
Black high-density polyethylene (HDPE) with an extruded stripe 1/4" in width available in white, yellow, purple and rose. Other colors available upon request.

Ratings

Tested to Telcordia standards

Air Pipe 1 Inch

HDPE duct with aluminum armor

Air Pipe Sixe in (mm)	Nominal Pipe Inner Diameter in (mm)	Average Pipe Wall Thickness in (mm)	Nominal Pipe Outer Diameter in (mm)
1.00 (25.4)	1.00 (25.4)	0.050 (1.27)	0.045 (1.14)

Consult factory for a variety of alternate constructions for specific applications.

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For sales and technical information, contact:
Draka Engineered Specialties | 1-800-233-3190 | 1-570-385-4381 | 1-570-385-1092 fax | www.drakausa.com

Armored Air Pipe 1/2 Inch

HDPE duct with inner tape shield and corrugated armor

Applications

Preventing moisture from attacking underground cables is a challenge. In an effort to eliminate this problem, telephone companies, through the use of air pipe, flow pressurized dry air directly into the cable. The airflow begins at a central location and is pressurized with the use of manifolds at various locations throughout the system.

Air Pipe is the perfect choice for your air pressure system applications.

Features

MADE IN THE USA

1. ARMOR

A 6 mil aluminum tape, coated with a polymer on both sides, longitudinally applied with a 1/8" overlap.

2. INNER PIPE

Black high-density polyethylene (HDPE).

3. OUTER ARMOR

A 6 mil corrugated steel tape coated with a polymer on both sides, longitudinally applied with a 1/8" overlap.

4. OUTER JACKET

Black high-density polyethylene (HDPE). Other colors available upon request.

Armored Air Pipe 1/2 Inch

HDPE duct with inner tape shield and corrugated armor

Air Pipe Sixe in (mm)	Nominal Pipe Inner Diameter in (mm)	Average Pipe Wall Thickness in (mm)	Nominal Pipe Outer Diameter in (mm)	Nominal Pipe Weight Lbs/Mft (Kg/Km)
0.500 (12.7)	0.593 (15.1)	0.080 (2.03)	0.940 (23.9)	228 (340)

Consult factory for a variety of alternate constructions for specific applications.

The data herein is approximate and subject to normal manufacturing tolerances. These specifications are subject to change without notice.

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Draka
Draka Cableteq | USA

CABLE IN CONDUIT (C I C)

Ducted systems provide extra mechanical protection for cable in direct buried applications during installation and for the long term. It is used for utilities (primary and secondary distribution), highway lighting, airport lighting, parking lots and sports complexes as well as telephone and CATV.

Ducted systems also offer physical and corrosive protection from the underground elements as well as ease of cable replacement. **THE DUCT CAN BE PRE-INSTALLED** with individual wires, coax, fiber optic, power and control or airport lighting cables.

The duct is composed of high density polyethylene. Sizes range from ½ inch (13mm) to 3 inch (76mm) and are manufactured in accordance with NEMA Standards Publication #TC7 and ASTM D3485. If a more rugged duct is required in the smaller diameters, Schedule 40 dimensions in ASTM D2447 are used. This material is tested in accordance with ASTM D3350.

Draka Cableteq's Tamaqua **PLUS I** and **PLUS II Duct Systems** have intermediate wall thickness that lie between ASTM D3485 (TC7) and ASTM D2447 (Schedule 40).

For NEC and non NEC underground applications, Tamaqua Ducts have been subjected to requirements detailed in UL 1990, Non-Metallic Underground Conduit with Conductors and subsequently UL listed for a range of products.

For specifications, consult the factory

Our Tamaqua Ducted Systems help reduce installation costs

Manufactured By
Draka Cableteq USA
Schuylkill Haven, PA

For More information Contact Us 888-520-1200

Draka
Draka Cableteq | USA

Duct-flyer-#1-Rev. Oct_2003

CIC

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Draka Cableteq | USA

TC 7 Duct

Size (inches)	NOM I.D. (inches)	NOM Wall (inches)	NOM O.D (inches)	Weight (Kft/Klbs)	Crush (Klbs/Kft)	Max. Rec. Pull (Tension force lbs)
1.00	1.145	0.085	1.315	147	375	550
1.25	1.440	0.110	1.660	236	530	600
1.50	1.650	0.125	1.900	305	625	1608
2.00	2.065	0.155	2.375	476	750	3187
2.50	2.449	0.213	2.875	772	NA	NA
3.00	3.048	0.226	3.500	1005	NA	NA

Schedule 40 Duct

Size (inches)	NOM I.D. (inches)	NOM Wall (inches)	NOM O.D (inches)	Weight (Kft/Klbs)	Crush (Klbs/Kft)	Max. Rec. Pull (Tension force lbs)
1.00	1.029	0.143	1.315	228	1200	1000
1.25	1.360	0.150	1.660	308	1110	1100
1.50	1.590	0.155	1.900	367	1025	2611
2.00	2.047	0.164	2.375	500	850	3634
2.50	2.445	0.215	2.875	778	1351	NA
3.00	3.042	0.229	3.500	1015	1495	NA

Dual Rated Colorable MV-90 & FAA Type C Power Cable

Single conductor / 8 AWG to 1000 KCMIL / XLPE insulation

Applications

FAA MV-90 CABLES are for medium voltage power transmission of up to 5000 volts. All Draka MV-90 cables are UL listed as intended for use in accordance with NEC Article 310-6 in dry locations up to 90ºC. They may also be used as rugged cables in ducted lighting circuits (600 volt to 2400 volt).

The 4, 6 and 8 AWG conductor cables are FAA approved for airport lighting circuits in accordance with the FAA advisory circular 150/5345-7E.

This cable is available in solid colors for permanent circuit identification.

Draka's airport lighting cables have been certified as 100% Buy American by the FAA.

Features

1. CONDUCTOR
Soft drawn bare copper stranded to ASTM B3 & B8.

2. STRAND SHIELD
Extruded layer of semiconducting material.

3. INSULATION
Colorable crosslinked polyethylene (XLPE) compound in accordance with the requirements of UL 1072 and the National Electric Code. The solid non-fading colors are used for permanent circuit identification.

Ratings

UL 1072 MV-90 DRY
ICEA S-96-659
NEMA WC71
FAA L-824 TYPE C
FAA (for 4, 6 & 8 AWG conductor cables)

Available colors

Blue
Grey
Orange
Green
Red
White
Yellow
Black
Terra cotta

Dual Rated Colorable MV-90 & FAA Type C Power Cable

Single conductor / 8 AWG to 1000 KCMIL / XLPE insulation

Part Number	Conductor Size and Stranding	Conductor Stranding	Average Jacket Thickness in (mm)	Nominal Cable O.D. in (mm)	Approximate Cable Weight Lbs/Mft (Kg/Km)
FAA1-8	8 AWG	7	.110 (2.8)	0.400 (10.2)	97 (144)
FAA1-6	6 AWG	7	.110 (2.8)	0.440 (11.2)	132 (196)
FAA1-4	4 AWG	7	.110 (2.8)	0.480 (12.2)	189 (281)
FAA1-2	2 AWG	7	.110 (2.8)	0.540 (13.7)	275 (409)
FAA1-1	1 AWG	19	.110 (2.8)	0.580 (14.7)	334 (497)
FAA1-0	1/0 AWG	19	.110 (2.8)	0.620 (15.7)	408 (607)
FAA1-00	2/0 AWG	19	.110 (2.8)	0.670 (17.1)	502 (747)
FAA1-000	3/0 AWG	19	.110 (2.8)	0.720 (18.3)	618 (920)
FAA1-0000	4/0 AWG	19	.110 (2.8)	0.780 (19.8)	763 (1135)
FAA1-250	250 KCMIL	37	.120 (3.0)	0.850 (21.6)	907 (1350)
FAA1-350	350 KCMIL	37	.120 (3.0)	0.960 (24.4)	1236 (1839)
FAA1-500	500 KCMIL	37	.120 (3.0)	1.090 (27.7)	1723 (2564)
FAA1-750	750 KCMIL	61	.130 (3.3)	1.280 (32.5)	2539 (3778)
FAA1-1000	1000 KCMIL	61	.130 (3.3)	1.440 (36.6)	3340 (4970)

The data herein is approximate and subject to normal manufacturing tolerances.

Information is subject to change without notice. Consult factory for a variety of alternate constructions for specific applications.

Available colors:

- Black
- Blue
- Green
- Grey
- Orange
- Red
- Terra cotta
- Yellow
- White

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For sales and technical information, contact:
Draka Engineered Specialties | 1-800-233-3190 | 1-570-385-4381 | 1-570-385-1092 fax | www.drakausa.com

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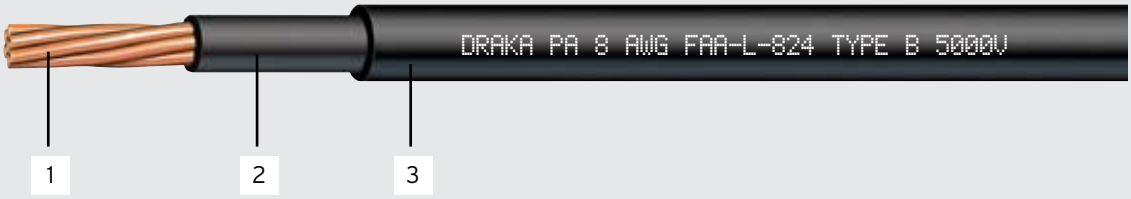
FAA-L-824 Type B Airport Lighting Power Cable

Single conductor / 8, 6 and 4 AWG / 5000 volt / EPR insulation / PVC jacket



Applications

These are single conductor 5000 volt nonshielded power cables suitable for underground installation for use as airport lighting circuits per FAA L-824 Type B and listed in the FAA AC 150/5345-53 Appendix 3. They are rated for use at 90°C in dry conditions.

FAA L-824 cables are suitable for use in conduit, duct, aerial and direct burial installations up to 5000 volts. The PVC jacket offers additional protection from de-icing fluids.

Draka's airport lighting cables have been certified as 100% Buy American by the FAA.

Features

MADE IN THE USA

1. CONDUCTOR

Class C, soft drawn bare copper stranded to ASTM B3 & B8.

2. INSULATION

Ethylene Propylene Rubber (EPR) compound in accordance with ICEA S-96-659 / NEMA WC71.

3. JACKET

PolyVinyl Chloride (PVC) compound in accordance with ICEA S-96-659 / NEMA WC71.

Ratings and Approvals

FAA Advisory Circular 150/5345-7E

Airport Lighting Equipment Certification Program per AC150/5345-53 Appendix 3 Underground Electrical Cable for Airport Lighting Circuits per spec L-824 ICEA S-96-659 / NEMA WC71

FAA-L-824 Type B Airport Lighting Power Cable

Single conductor / 8, 6 and 4 AWG / 5000 volt / EPR insulation / PVC jacket

Part Number	Conductor Size	Stranding	Insulation Thickness mils (mm)	Jacket Thickness mils (mm)	Approximate Cable O.D. In (mm)	Cable Weight Lbs/Mft (Kg/Km)
388270-S	8 AWG	7	90 (2.3)	30 (0.76)	0.420 (10.7)	121 (180)
388271-S	6 AWG	7	90 (2.3)	30 (0.76)	0.460 (11.7)	160 (238)
388xxx	4 AWG	7	90 (2.3)	30 (0.76)	0.505 (12.8)	219 (326)

Optional features include jacketed constructions: 1) Crosslinked polyethylene (XLPE) insulation with a PVC jacket, and 2) Ethylene propylene rubber (EPR) insulation with a CPE jacket.

The data herein is approximate and subject to normal manufacturing tolerances.

Information is subject to change without notice. Consult factory for a variety of alternate constructions for specific applications.

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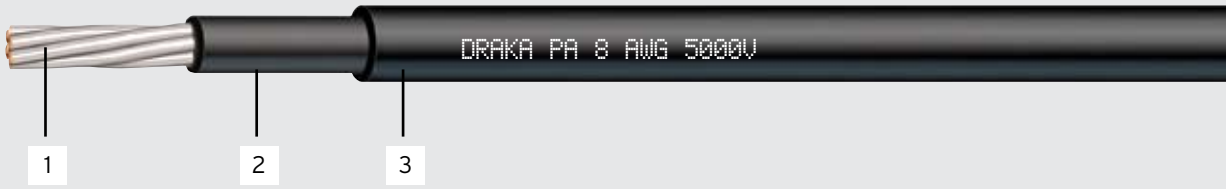
FAA-L-824 Type B Airport Lighting Power Cable

Single conductor / 8, 6 and 4 AWG / 5000 volt / EPR insulation / CPE jacket



Applications

These are single conductor 5000 volt nonshielded power cables suitable for underground installation for use as airport lighting circuits per FAA L-824 Type B and listed in the FAA AC 150/5345-53 Appendix 3. They are rated for use at 90°C in dry conditions.

FAA L-824 cables are suitable for use in conduit, duct, aerial and direct burial installations up to 5000 volts. The CPE jacket offers additional protection from de-icing fluids.

Draka's airport lighting cables have been certified as 100% Buy American by the FAA.

Features

1. CONDUCTOR

Class C, soft drawn bare copper stranded to ASTM B3 & B8.

2. INSULATION

Ethylene Propylene Rubber (EPR) compound in accordance with ICEA S-96-659 / NEMA WC71.

3. JACKET

Chlorinated PolyEthylene (CPE) compound in accordance with ICEA S-96-659 / NEMA WC71.

Ratings and Approvals

FAA Advisory Circular 150/5345-7E

Airport Lighting Equipment Certification Program per AC150/5345-53 Appendix 3 Underground Electrical Cable for Airport Lighting Circuits per spec L-824 ICEA S-96-659 / NEMA WC71

FAA-L-824 Type B Airport Lighting Power Cable

Single conductor / 8, 6 and 4 AWG / 5000 volt / EPR insulation / CPE jacket

Part Number	Conductor Size	Stranding	Insulation Thickness mils (mm)	Jacket Thickness mils (mm)	Approximate Cable O.D. In (mm)	Cable Weight Lbs/Mft (Kg/Km)
388278-S	8 AWG	19	90 (2.3)	30 (0.76)	0.420 (10.7)	117 (174)
388785	6 AWG	19	90 (2.3)	30 (0.76)	0.460 (11.7)	157 (234)
389409	4 AWG	19	90 (2.3)	30 (0.76)	0.505 (12.8)	217 (323)

Optional features include jacketed constructions: 1) Crosslinked polyethylene (XLPE) insulation with a PVC jacket, and 2) Ethylene propylene rubber (EPR) insulation with a PVC jacket.

The data herein is approximate and subject to normal manufacturing tolerances.

Information is subject to change without notice. Consult factory for a variety of alternate constructions for specific applications.

IND FAADOT08 1010

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FAA-L-824 Type C Airport Lighting Power Cable

Single conductor / 8, 6 and 4 AWG / 5000 volt / XLPE insulation / shield / PVC jacket

Applications

These are single conductor 5000 volt shielded power cables suitable for underground installation for use as airport lighting circuits per FAA L-824 Type C and listed in the FAA AC 150/5345-53 Appendix 3. They are rated for use at 90°C in wet or dry conditions.

FAA L-824 cables are suitable for use in conduit, duct, aerial and direct burial installations up to 5000 volts. The PVC jacket offers additional protection from de-icing fluids. Copper shielding provides protection against EMI.

Draka's airport lighting cables have been certified as 100% Buy American by the FAA.

Features

MADE IN THE USA

1. CONDUCTOR

Class B or C, soft drawn bare or tinned copper, stranded to ASTM B3 or ASTM B33.

2. INSULATION SYSTEM

Extruded semi-conducting crosslinked polyethylene (XLPE) applied over the conductor. Heat and moisture resistant crosslinked polyethylene (XLPE) insulation. Semi-conducting tape (10 mils) helically applied over the insulation, printed "SEMI-CONDUCTING REMOVE BEFORE SPLICING OR TERMINATING."

3. SHIELD

Helically-applied 5 mil bare copper tape applied directly over the insulation system.

4. JACKET

PolyVinyl Chloride (PVC) compound in accordance with ICEA S-93-639 / NEMA WC74.

Ratings and Approvals

FAA Advisory Circular 150/5345-7E

Airport Lighting Equipment Certification Program per AC150/5345-53 Appendix 3 Underground Electrical Cable for Airport Lighting Circuits per spec L-824 Type C

ICEA S-93-639 / NEMA WC74

UL-1072 Type MV-90

FAA-L-824 Type C Airport Lighting Power Cable

Single conductor / 8, 6 and 4 AWG / 5000 volt / XLPE insulation / shield / PVC jacket

Part Number	AWG	Strand	Insulation System			Outer Diameter in (mm)	Max Sidewall Pressure per Radius of Bend lb/ft (N/m)	Max Pulling Tension lb (N)	Minimum Bend Radius		Weight lb/1000' (kg/km)
			Semi-Conducting Layer mils (mm)	Minimum Insulation mils (mm)	Semi-Conducting Layer mils (mm)				Trained in (mm)	Pulling in (mm)	
032632XX	8	7 or 19	12 (0.30)	85 (2.16)	10 (0.25)	0.565 (14.3)	300 (4374)	132 (587)	6.8 (173)	13.6 (345)	200 (298)
032633XX	6	7 or 19	12 (0.30)	85 (2.16)	10 (0.25)	0.605 (15.4)	300 (4374)	210 (934)	7.3 (185)	14.6 (370)	246 (366)
032634XX	4	7 or 19	12 (0.30)	85 (2.16)	10 (0.25)	0.668 (17.0)	300 (4374)	335 (1490)	8.0 (203)	16.0 (406)	345 (513)

Substitute XX in Part Number for two-letter color code, i.e. BK - Black, RD - Red, etc.

The data herein is approximate and subject to normal manufacturing tolerances.

Information is subject to change without notice. Consult factory for a variety of alternate constructions for specific applications.

Available colors:

- Black BK
- Blue BL
- Green GN
- Orange OR
- Red RD
- White WH

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IND FAADOT36 0211

For sales and technical information, contact:
Draka Engineered Specialties | 1-800-233-3190 | 1-570-385-4381 | 1-570-385-1092 fax | www.drakausa.com

FAA-L-824 TYPE C CABLE

single conductor for airport lighting and control
8, 6 & 4 AWG / XLPE insulation / 5KV

APPLICATIONS

These are single conductor 5000 volt nonshielded power cables suitable for L-824 underground installation for lighting at airports per FAA L-824 Type C and AC 150/5345-53 Appendix 3. They are rated for use at 90°C wet or dry conditions.FAA-L-824 cables are suitable for use in conduit, duct, aerial and direct burial installations.

FEATURES

1. **CONDUCTORS**
   Soft drawn stranded bare copper per ASTM B3 and ASTM B8.
2. **INSULATION**
   Crosslinked polyethylene (XLPE) 110 mil thick in accordance with NEC 310-6a and ICEA S-96-659. An optional separator tape under the insulation eases stripping.
3. **SURFACE MARKING**
   The jacket surface shall be printed or indented with: DRAKA CABLETEQ USA-PA TAMAQUA CABLE (AWG SIZE) 5 KV XLP NONSHIELD NONJACKET FAA L-824 TYPE C ETL VERIFIED.

STANDARDS AND APPROVALS

FAA Advisory Circular 150/5345-7E
Airport Lighting Equipment Certification Program per AC150/5345-53 appendix 3 Underground Electrical Cable for Airport Lighting Circuits per spec L-824 ICEA S-96-659 (NEMA WC71)

FAA-L-824 TYPE C CABLE

single conductor for airport lighting and control
8, 6 & 4 AWG / XLPE insulation / 5KV

Part Number	Conductor Size	Stranding	Insulation Thickness in (mm)	Approximate Cable O.D. In (mm)	Cable Weight Lbs/Mft (Kg/Km)
389171	8 AWG	7 x .0486	.110 (2.8)	0.375 (9.53)	92 (137)
389172	6 AWG	7 x .0612	.110 (2.8)	0.410 (10.4)	129 (192)
388099	4 AWG	7 x .0772	.110 (2.8)	0.460 (11.7)	185 (276)

Optional features include jacketed constructions: 1) Ethylene propylene rubber (EPR) insulation with a PVC jacket, and 2) Ethylene propylene rubber (EPR) insulation with a CPE jacket.

Information is subject to change without notice. Consult factory for a variety of alternate constructions for specific applications.

GILA-Duct

(Galvanized InterLocking Armor)

Applications

GILA-Duct® is a specially manufactured HPDE duct that is used where additional mechanical protection of cable is of primary importance. Suitable for both aerial and buried installations, this construction combines the protection of a metal armor with the low cable pulling friction and the low dielectric constant of HDPE.

GILA-Duct can be supplied empty, with a pull line, or with Draka cables presinstalled. It is shipped with sealed ends to prevent entry of moisture and other contaminants.

Conductors available include THHN/THWN, EPR-USE, XHHW-2, RHH/RHW-2, XLP-USE, L-824 B or C airport lighting cable, fiber optic cable, paired communication/coax cables, aluminum conductors and medium voltage cables.

Tests have shown that the average lightning resistivity of GILA-Duct is up to 200kV.

Features

MADE IN THE USA

1. INNER DUCT

Black high density polyethylene (HDPE) meeting ASTM 3350 requirements with TC-7 wall thickness.

2. ARMOR

Galvanized steel tape 25 mils thick, interlocked and helically applied.

3. JACKET

60 mil thick HDPE meeting ASTM 3350, nominally orange or black but can be colored to your specifications.

4. SURFACE MARKING

The jacket surface shall be printed or indented with: DRAKA CABLETEQ USA-PA TAMAQUA CABLE GILA-DUCT (size of duct, i.e. 1.25 inch), year of manufacture (i.e. 2010) sequential footage every two feet.

Ratings

The duct is composed of black (other colors available), high-density polyethylene meeting the requirements (Class C, Grade PE33) of ASTM 3350 – Standard Specification for Polyethylene Plastics Pipe and Fittings Material.

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GILA-Duct

(Galvanized InterLocking Armor)

Duct Trade Size in (mm)	Inner Diameter Nominal in (mm)	Wall Thickness Minimum in (mm)	Wall Thickness Tolerance +/- in (mm)	Outside Diameter Nominal in (mm)	Outside Diameter Tolerance+/- in (mm)	Weight Nominal mft/mlbs	Crush Force lbs/ft	Bend Radius Nominal in	Pulling Tension lbs
0.75 (19.1)	.910 (23.1)	.06 (1.5)	.02 (.51)	.06 (1.5)	1.41 (35.8)	672	4000	17	n/a
1.00 (25.4)	1.15 (29.2)	.075 (1.9)	.02 (.51)	.06 (1.5)	1.74 (44.2)	927	4050	21	1403
1.25 (31.8)	1.44 (36.6)	.10 (2.5)	.02 (.51)	.06 (1.5)	2.10 (53.3)	1191	2900	25	1685
1.50 (38.1)	1.65 (41.8)	.115 (2.9)	.02 (.51)	.06 (1.5)	2.34 (59.4)	1375	2850	28	3402
2.00 (50.8)	2.07 (52.6)	.145 (3.7)	.02 (.51)	.06 (1.5)	2.75 (69.9)	1785	4218	33	4218
3.00 (76.2)	3.05 (77.5)	.210 (5.7)	.02 (.51)	.06 (1.5)	4.10 (104)	2952	6011	49	6011

The data herein is approximate and subject to normal manufacturing tolerances. These specifications are subject to change without notice.
Consult factory for a variety of alternate constructions for specific applications.

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www.drakausa.com

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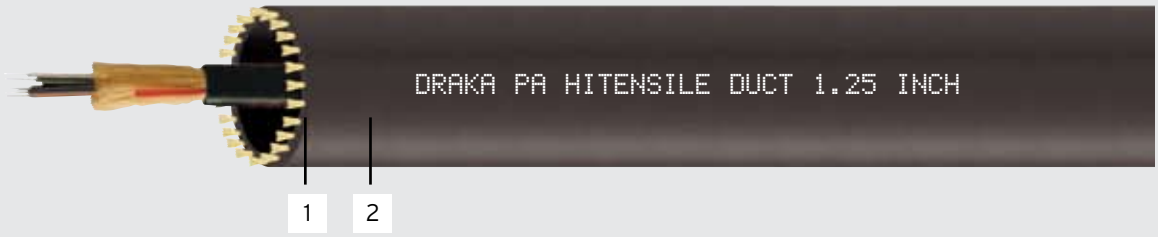
For sales and technical information, contact:
Draka Engineered Specialties | 1-800-333-4248 | 1-508-822-5444 | 1-508-822-1944 fax | www.drakausa.com

HiTensile Duct

HDPE duct with Kevlar® reinforcement



Applications

Draka HiTensile duct is a heavy duty duct designed specifically for use when installing fiber optic cable over long distances. This Kevlar®-reinforced high-density polyethylene (HDPE) duct has a pulling tension that far exceeds that of the most robust cable. Pre-installing cable in HiTensile duct offers real benefits both during installation and in the long term life of the cable. It is shipped with sealed ends to prevent entry of moisture and other contaminants.

In buried installations, cable length may be limited because the anticipated pulling force may exceed what the cable can bear. However, HiTensile duct can withstand a much greater pulling effort and makes possible easier and longer splice-free runs (2,500 feet or more) of pre-installed cable.

When aerially installed cable is directly attached to a messenger cable, the difference in their expansion rates may result in cable damage. HiTensile duct helps to prevent the fiber in pre-installed cable from micro-fracturing caused during thermal expansion and contraction.

MADE IN THE USA

HiTensile duct may be used to protect cable types other than fiber optic. It is available in 1 inch and 1 1/4 inch sizes and may be specified in a medium (2000 lbs.) and heavy (4,500 lbs.) pulling tension.

Features

1. DUCT

High density polyethylene (HDPE) duct reinforced by strands of aramid yarn strands extruded in the duct wall.

2. COLOR

Black, although custom colors can be ordered.

®Kevlar is a registered trademark of Dupont.

HiTensile Duct

HDPE duct with Kevlar® reinforcement

Nominal Duct Size in (mm)	Nominal ID of Duct in (mm)	Nominal Wall Thickness in (mm)	Nominal Duct O.D. in (mm)	Nominal Duct Weight in (mm)	Pulling Tension force/lbs Medium Heavy
1.00 (25.4)	1.00 (25.4)	0.188 (4.78)	1.375 (34.9)	303 (451)	2000lbs 4500lbs
1.25 (31.8)	1.26 (32.6)	.20 (5.08)	1.660 (42.1)	400 (596)	2000lbs 4500lbs

The data herein is approximate and subject to normal manufacturing tolerances. These specifications are subject to change without notice.

Consult factory for a variety of alternate constructions for specific applications.

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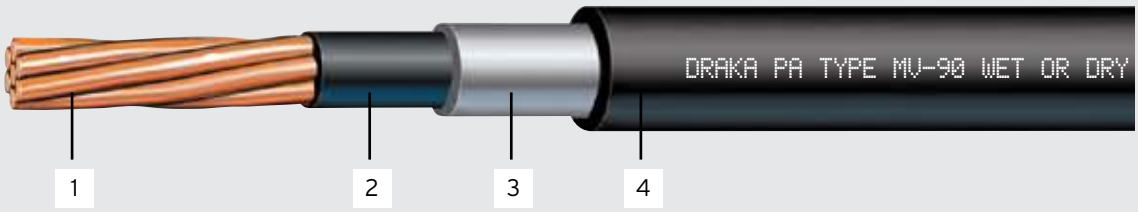
For sales and technical information, contact:
Draka Engineered Specialties | 1-800-233-3190 | 1-570-385-4381 | 1-570-385-1092 fax | www.drakausa.com

2.4K Type MV-90 Wet & Dry Power Cable

single conductor / 8 AWG to 1000 KCMIL / PVC jacket / 2400 volts



Applications

MV-90 CABLES are for medium voltage power transmission of up to 2400 volts. All Draka MV-90 cables are UL listed as intended for use in accordance with NEC Article 310-6 in wet or dry locations up to 90ºC. They are also suitable for use in conduit, duct, aerial and direct burial installations up to 2400 volts.

Features

1. CONDUCTOR

Soft drawn bare copper stranded to ASTM B3 & B8.

2. STRAND SHIELD

Extruded layer of semiconducting material.

3. INSULATION

Crosslinked polyethylene (XLPE) compound in accordance with the requirements of UL 1072 and the National Electric Code.

4. JACKET

Polyvinyl Chloride compound in accordance with the requirements of UL 1072 and the National Electric Code.

5. SURFACE MARKINGS

The jacket surface is ink printed "DRAKA CABLETEQ USA - TAMAQUA CABLE UL TYPE MV-90 WET OR DRY (conductor size) 2400 VOLTS NON-SHIELDED XLP"

Ratings

UL 1072 MV-90 WET or DRY

ICEA S-96-659

NEMA WC7

2.4K Type MV-90 Wet & Dry Power Cable

single conductor / 8 AWG to 1000 KCMIL / PVC jacket / 2400 volts

Part Number	Conductor Size	Conductor Stranding	Average Insulation Thickness in (mm)	Average Jacket Thickness in (mm)	Nominal Cable O.D. in (mm)	Approximate Cable Weight Lbs/Mft (Kg/Km)
MV901-8	8 AWG	7	.125 (3.2)	.080 (2.0)	0.590 (15.0)	192 (286)
MV901-6	6 AWG	7	.125 (3.2)	.080 (2.0)	0.630 (16.0)	236 (351)
MV901-4	4 AWG	7	.125 (3.2)	.080 (2.0)	0.680 (17.3)	301 (448)
MV901-2	2 AWG	7	.125 (3.2)	.080 (2.0)	0.740 (18.8)	398 (592)
MV901-1	1 AWG	19	.125 (3.2)	.080 (2.0)	0.780 (19.8)	465 (692)
MV901-0	1/0 AWG	19	.125 (3.2)	.080 (2.0)	0.820 (20.8)	547 (814)
MV901-00	2/0 AWG	19	.125 (3.2)	.080 (2.0)	0.860 (21.8)	649 (966)
MV901-000	3/0 AWG	19	.125 (3.2)	.095 (2.4)	0.940 (23.9)	805 (1198)
MV901-0000	4/0 AWG	19	.125 (3.2)	.095 (2.4)	1.000 (25.4)	963 (1433)
MV901-250	250 kcmil	37	.140 (3.6)	.110 (2.8)	1.105 (28.1)	1159 (1725)
MV901-350	350 kcmil	37	.140 (3.6)	.110 (2.8)	1.210 (30.7)	1515 (2254)
MV901-500	500 kcmil	37	.140 (3.6)	.110 (2.8)	1.350 (34.3)	2036 (3030)
MV901-750	750 kcmil	61	.155 (3.9)	.125 (3.2)	1.590 (40.4)	2974 (4425)
MV901-1000	1000 kcmil	61	.155 (3.9)	.125 (3.2)	1.740 (44.2)	3822 (5687)

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For sales and technical information, contact:
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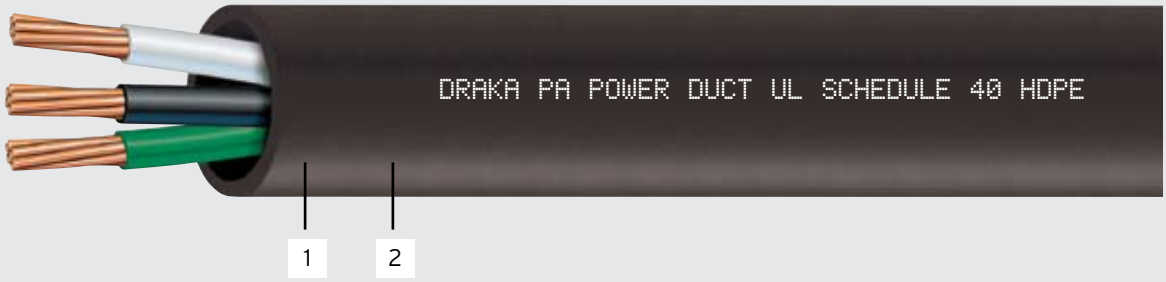
Power Duct™ Schedule 40 HDPE Duct



Applications

Schedule 40 HDPE duct is used where additional mechanical protection is needed for cable in direct buried applications. It is used for highway lighting, airport lighting, parking lots, sports complexes and utilities as well as telephone, fiber and CATV. It is shipped with sealed ends to prevent entry of moisture and other contaminants.

Ducted systems offer physical and corrosive protection from the underground elements. Schedule 40 duct can be supplied empty, with a pull line or with Draka cables preinstalled. Conductors available include THHN/THWN, EPR-USE, XHHW-2, RHH/RHW-2, XLP-USE, L-824B or C airport lighting cable, fiber optic cable, paired communication/coax cables, aluminum conductors and medium voltage cables.

Features

MADE IN THE USA

1. DUCT

High density polyethylene (HDPE) meeting ASTM D3350 with Schedule 40 wall thickness.

2. COLOR

Black, although custom colors or extruded stripes can be ordered.

Ratings

ASTM D-2447 Standard Specification for Polyethylene (PE) Plastic Pipe, Schedule 40 and 80, Based on Outside Diameter

UL-1990 Non-metallic underground conduit with conductors

ASTM D3350, meeting Class C, grade PE33 of Standard Specification for Polyethylene Plastics Pipe and Fittings material

Power Duct™ Schedule 40 HDPE Duct

Duct Trade Size in (mm)	Inner Diameter Nominal in (mm)	Wall Thickness Minimum in (mm)	Wall Thickness Tolerance +/- in (mm)	Outside Diameter Nominal in (mm)	Outside Diameter Tolerance+/- in (mm)	Weight Nominal mft/mlbs	Crush Force mlbs/mft	Bend Radius Nominal in	Pulling Tension lbs
.75 (19.1)	.804 (20.4)	.113 (2.87)	.02 (.51)	1.05 (26.7)	.13 (3.3)	156	n/a	13	n/a
1.0 (25.4)	1.03 (26.2)	.133 (3.37)	.02 (.51)	1.31 (33.4)	.13 (3.3)	228	1200	14	1000
1.25 (31.8)	1.36 (34.5)	.140 (3.56)	.02 (.51)	1.66 (42.2)	.13 (3.3)	308	1110	17	1100
1.50 (38.1)	1.59 (40.4)	.145 (3.68)	.02 (.51)	1.90 (48.3)	.15 (3.8)	367	1025	19	2611
2.00 (50.8)	2.05 (52.1)	.154 (3.91)	.02 (.51)	2.38 (60.3)	.15 (3.8)	500	850	24	3634
2.50 (63.5)	2.54 (62.2)	.203 (5.16)	.024 (.61)	2.88 (73.0)	.18 (4.6)	778	1351	28	n/a
3.00 (76.2)	3.04 (77.3)	.215 (5.49)	.026 (.66)	3.50 (88.9)	.20 (5.1)	1015	1495	42	n/a

The data herein is approximate and subject to normal manufacturing tolerances. These specifications are subject to change without notice.
Consult factory for a variety of alternate constructions for specific applications.

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For sales and technical information, contact:
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Power Duct™ TC7 HDPE Duct

Direct burial duct with CIC options

1

Applications

TC7 HDPE duct is used where additional physical and corrosive protection is required for cable in direct buried applications. TC7 HDPE duct is used for highway lighting, airport lighting, parking lots, sports complexes and utility applications and can house power, telephone, fiber and CATV cables. It is shipped with sealed ends to prevent entry of moisture and other contaminants.

TC 7 duct can be supplied empty, with a pull line, or with Draka Cableteq cables preinstalled. Conductors available include THHN/THWN, EPR-USE, XHHW-2, RHH/RHW-2, XLP-USE, L-824B or C airport lighting cable, fiber optic cable, twisted pair and coaxial communication cables, aluminum conductors and medium voltage cables.

Features

MADE IN THE USA

1. DUCT

High Density Polyethylene (HDPE) meeting ASTM D3350 with TC7 wall thickness. Black is the standard color, although custom colors or extruded stripes can be ordered.

Ratings

ASTM D3485 – Standard specification for smooth wall coilable polyethylene (PE) conduit (duct) for preassembled wire and cable

HDPE meets the requirements (Class C, Grade PE33) of ASTM D3350 – Standard specification for polyethylene plastics pipe and fittings material

Power Duct™ TC7 HDPE Duct

Direct burial duct with CIC options

Duct Trade Size in (mm)	Inner Diameter Nominal in (mm)	Wall Thickness Minimum in (mm)	Wall Thickness Tolerance +/- in (mm)	Outside Diameter Nominal in (mm)	Outside Diameter Tolerance+/- in (mm)	Weight Nominal mft/mlbs	Crush Force mlbs/mft	Bend Radius Nominal in	Pulling Tension lbs
.75 (19.1)	.910 (23.1)	.06 (1.5)	.02 (.51)	1.05 (26.7)	.12 (3.0)	98	1000	13	450
1.00 (25.4)	1.15 (29.2)	.075 (1.9)	.02 (.51)	1.31 (33.4)	.12 (3.0)	147	375	14	550
1.25 (31.8)	1.44 (36.6)	.10 (2.5)	.02 (.51)	1.66 (42.2)	.12 (3.0)	236	530	17	600
1.50 (38.1)	1.65 (41.8)	.115 (2.9)	.02 (.51)	1.90 (48.3)	.12 (3.0)	305	625	19	1608
2.00 (50.8)	2.07 (52.6)	.145 (3.7)	.02 (.51)	2.38 (60.3)	.12 (3.0)	476	750	24	1700
2.50 (63.5)	2.45 (62.2)	.203 (5.2)	.02 (.51)	2.88 (73.0)	.12 (3.0)	772	n/a	28	n/a
3.00 (76.2)	3.05 (77.5)	.216 (5.5)	.02 (.51)	3.50 (88.9)	.12 (3.0)	1005	n/a	42	n/a

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Consult factory for a variety of alternate constructions for specific applications.

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SCHEDULE 40 LSZH DUCT

flame-retardant duct

APPLICATIONS

Schedule 40 LSZH duct is for use in facilities where flammability and smoke generation are a concern. It is a non-metallic duct made of modified polyethylene (PE) with low-smoke and flame-retardant additives.

Schedule 40 duct can be supplied as an empty tube or either a pull line or with Draka cables preinstalled. It is shipped with sealed ends to prevent entry of moisture and other contaminants.

Note: because this duct is made of modified material, it does not precisely subscribe to the usual standards for duct, such as ATSM D-1248. However, it does comply dimensionally with ASTM D-2447 for Schedule 40.

FEATURES

1. **DUCT**
   Modified PE with low smoke and flame-retardant additives. Schedule 40 duct is available in sizes from 1 to 3 inches in diameter. Different colors and duct with a molded-in longitudinal stripe for identification are available.
2. **SURFACE MARKING**
   The jacket surface shall be printed or indented with: DRAKA CABLETEQ USA-PA TAMAQUA CABLE SCHEDULE 40 LSZH DUCT, SIZE OF DUCT (I.E. 1.25 INCH) YEAR OF MANUFACTURE (I.E. 2006), SEQUENTIAL FOOTAGE EVERY TWO FEET.

RATINGS

GR-356-CORE for Fiber Optic Duct
ASTM D-2447 Standard Specification for Polyethylene (PE) Plastic Pipe, Schedule 40 and 80, Based on Outside Diameter.
ASTM D-6070 for physical properties
UL-1581 Vertical Tray Flame Test
NEMA TC-7 Compression & Recovery, 85% minimum
NEMA TC-7 Crush Resistance, NEMA TC-7 Table 4-1
NEMA TC-7 Impact Test (room temp), NEMA TC-7 No cracks > 30% max
NEMA TC-7 Impact Test (-20° C), NEMA TC-7 No cracks > 30% max
NEMA TC-7 Limiting Oxygen Index, ASTM D-2863, 28 minimum
NEMA TC-7 Environmental Stress Cracking, ASTM D-1693, Test Condition C, No cracks > 20% max, 192 hr. exposure, 100% Igepal CO-630
NEMA TC-7 Vertical Tray Flame Test UL-1581, No propagation

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SCHEDULE 40 LSZH DUCT

flame-retardant duct

Nominal Duct Trade Size in (mm)	Outer Diameter in (mm)	Wall Thickness in (mm)	Pipe Weight lbs/Mft	Minimum Bend Radius in (mm)
1.00 (25.4)	1.315 (33.4)	0.133 (3.4)	309	14 (355)
1.25 (31.8)	1.660 (42.1)	0.140 (3.6)	418	17 (432)
1.50 (38.1)	1.900 (48.3)	0.145 (3.7)	500	19 (483)
2.00 (50.8)	2.375 (60.3)	0.154 (3.9)	670	24 (610)
2.50 (63.5)	2.875 (73.0)	0.203 (5.2)	1047	28 (711)
3.00 (76.2)	3.500 (88.9)	0.216 (5.5)	1366	42 (1067)

Information is subject to change without notice. Consult factory for a variety of alternate constructions for specific applications.