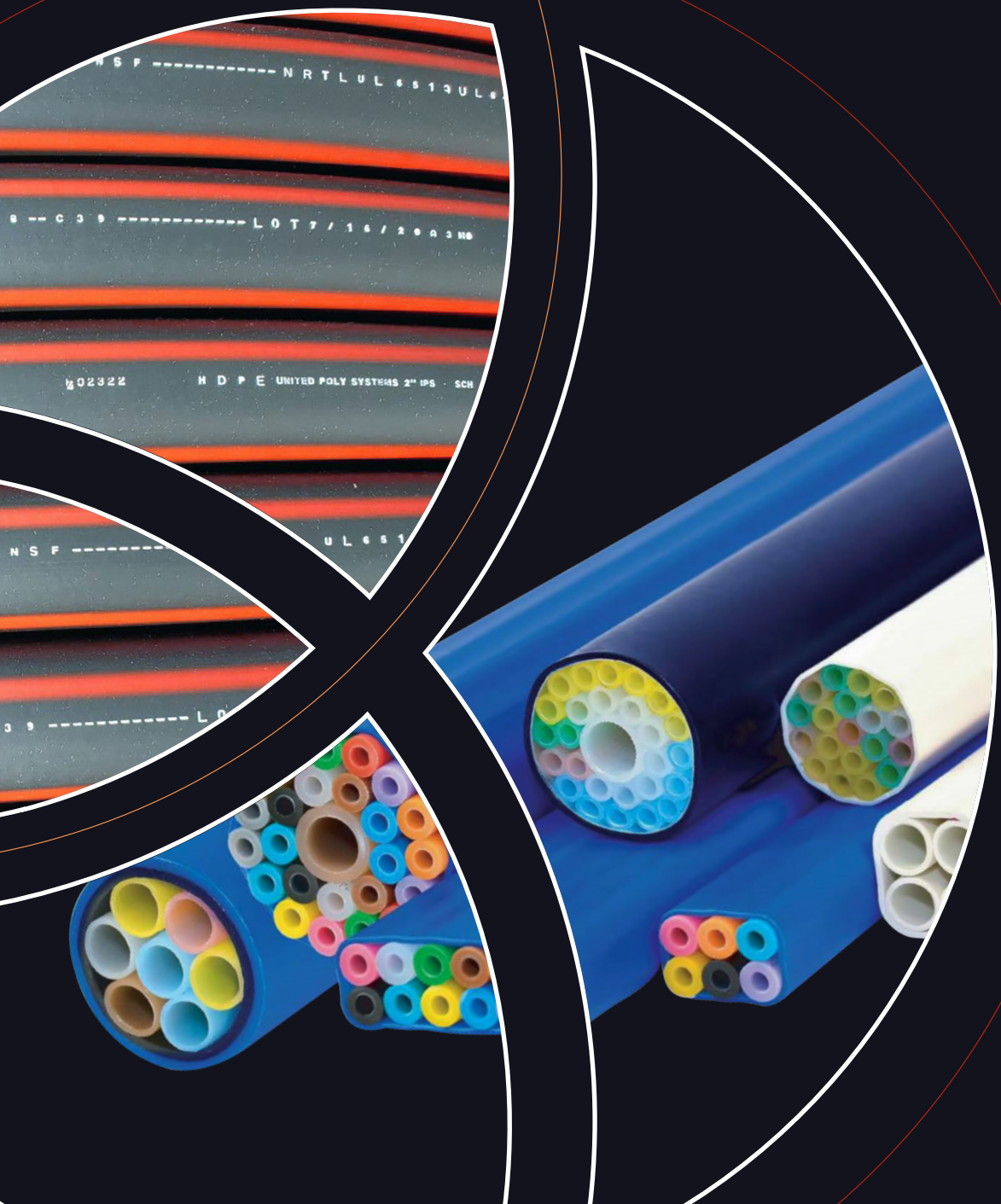
Conduit Product Suite

Power and Communications Market Products



United Poly Systems

Comm-Line

United Poly System's Comm-Line is one of the most common conduit solutions for telecommunications and fiber-optic projects across the United States. It is available in IPS (Iron Pipe Size) in diameters from ¾ to 16 inches and DIPS (Ductile Iron Pipe Size) in diameters 4 inches and up. It can be installed in existing conduit or via plow, direct burial or HDD (horizontal directional drilling) installation methods.

Comm-Line is typically identified by a solid orange or terracotta color. However, Comm-Line is available in 12 colors, and added striping can result in up to 144 variations to meet any project requirement. Special coloring or print line identification can be used to identify the product and differentiate it from other telecom companies who might be sharing the same trench. Comm-Line is available for delivery on segmented reels; separate multiple lines can be wound on a single reel for easy installation of multiple lines at the job site.

Print Line Information

Comm-Line is sequentially marked and identified along its outer length in contrasting color.

The print interval is every two feet and includes the following:

MANUFACTURER'S NAME:
United Poly Systems PRODUCT SIZE/SDR

PRODUCTION CODE Date, Location, Period SPECIFICATION

LENGTH OF CONDUIT (in feet)

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com
unitedpolysystems.com ■

Options

- Straight longitudinal internal ribbing is available for all pipes 2 in. diameter and below. Uniform straight internal ribbing spans the length of the pipe.
- Optional custom print lines are available and may include customer name, project name, application and lightning bolt.
- Pull tape is offered in several tensile strengths. United Poly Systems standard pull tape is 1130 lb strength. Other options include strengths from 200 to 2500 lb.
- Several colors and stripes are offered to customize the product to the customer's needs. United Poly Systems offers custom colors upon request.

HDPE conduit material definition according to ASTM F2160

PROPERTY	RANGE OR MINIMUM REQUIREMENT	UNITS	CELL CLASS	TEST METHOD
Density	0.941 - 0.955	g/cc	3	ASTM D 792 or 1505
Melt Index	< 0.25 - 0.40	g/10 minutes	3 or 4	ASTM D 1238
Flexural Modulus	110,000 - 160,000	psi	4 or 5	ASTM D 790
Tensile Strength	3000 - 4000	psi	4 or 5	ASTM D 638
Environmental Stress Crack Resistance	F20 > 192	Hours (condition C)	3 or 4	ASTM D 1693
HDB	Not Defined		0, 1, 2, 3 or 4	ASTM D 2837

These are nominal values and used as guidelines only.
This is not a product specification and does not indicate minimum or maximum operating values.

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com
unitedpolysystems.com ■

Hard-Line

Hard-Line is United Poly Systems HPDE pipe for high pressure, high corrosive and heavy wall applications. Hard-Line is rated for higher operating pressure and has a thicker wall than standard pipes. It is available in IPS (Iron Pipe Size) size from 1¼- to 10-in. diameter. Typical product lines include SDR5, SDR6 and SDR7. Specific products can be de-rated for certain applications. Hard-Line can be striped to indicate different applications.

Applications

- Railroad crossings
- Bore installations under waterway (lake, river, etc.)
- Nuclear sites
- Oil and gas sites
- Mines
- Any application where high pressure and/or high corrosive use is necessary

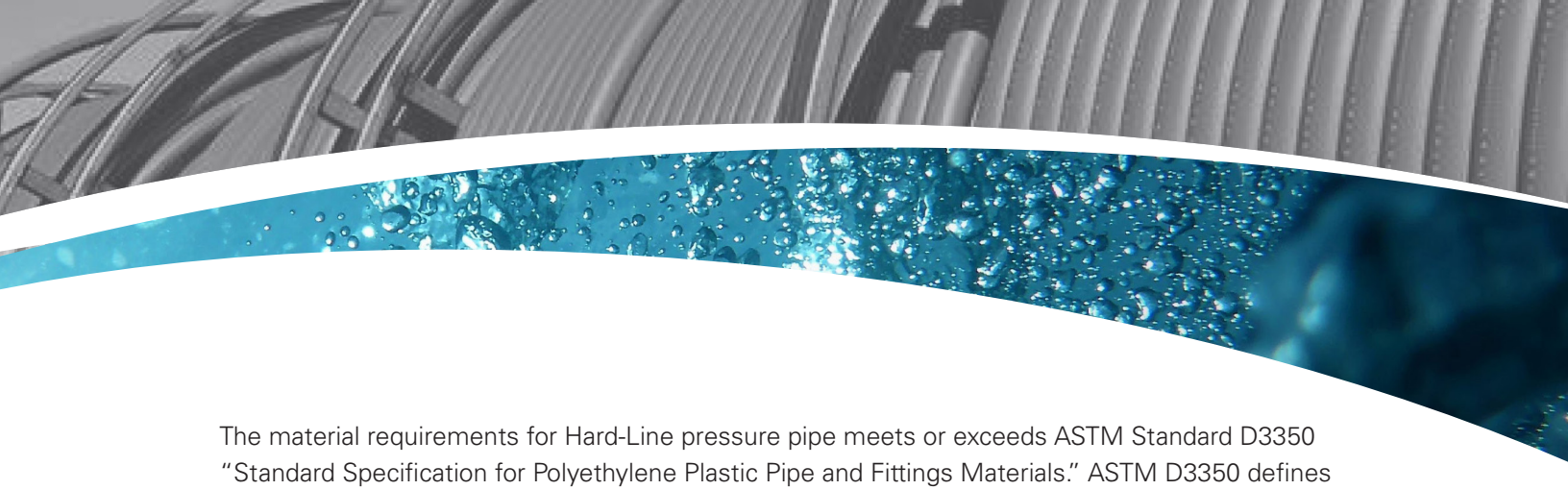
PE4710 Typical Physical Properties

PROPERTY	TYPICAL VALUE	UNITS	TEST METHOD
Density with minimum 2% carbon black	0.960	g/cc	ASTM D 792 or 1505
High Load Melt Index	8.5	g /10 minutes	ASTM D 1238
Melt Index	0.08	g/10 minutes	ASTM D 1238
Flexural Modulus	110,000 <160,000	psi	ASTM D 790
Tensile Strength @ yield (2 in./min)	3600	psi	ASTM D 638
Tensile Elongation @ Break	740%		ASTM D 638
Thermal expansion	1.0 x 10-4	in/ in / 0	ASTM D 696
HDB 73.4°F (23°C)	1600	psi	ASTM D 2837
HDB 140°F (60°C)	1000	psi	ASTM D 2837
PENT	> 500	hr	ASTM F1473
Brittleness Temperature	< -103°F (-75°C)	°F	ASTM D 746
Cell Classification	445574C (black only)		ASTM D 3350

These are nominal values and used as guidelines only.
This is not a product specification and does not indicate minimum or maximum operating values.

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com
unitedpolysystems.com ■



The material requirements for Hard-Line pressure pipe meets or exceeds ASTM Standard D3350 "Standard Specification for Polyethylene Plastic Pipe and Fittings Materials." ASTM D3350 defines important physical properties of HDPE materials into ranges, or cell classes, so that each property can be defined within a range that is appropriate for the application.

IPS Sizes

IPS SIZE	AVG. OD	SDR PSI	5 500	6 400	7 335
1¼ in.	1.66	Min Wall Avg ID Weight p/ft	0.332 0.956 0.600	0.277 1.073 0.520	0.237 1.157 0.459
1½ in.	1.90	Min Wall Avg ID Weight p/ft	0380 1.094 0.785	0.317 1.229 0.682	0.271 1.325 0.600
2 in.	2.375	Min Wall Avg ID Weight p/ft	0.475 1.368 1.227	0.396 1.536 1.065	0.339 1.656 0.939
3 in.	3.50	Min Wall Avg ID Weight p/ft	0.700 2016 2665	0.583 2.263 2.314	0.500 2.440 2.040
4 in.	4.50	Min Wall Avg ID Weight p/ft		0.750 2.910 3.824	0.643 3.137 3.372
6 in.	6.625	Min Wall Avg ID Weight p/ft		1.104 4.284 8.289	0.262 2.351 0.930
8 in.	8.625	Min Wall Avg ID Weight p/ft		1.438 5.578 14.049	0.946 4.619 7.330
10 in.	10.75	Min Wall Avg ID Weight p/ft		1.792 6.952 21.825	1.536 7.494 19.245

These are nominal values and used as guidelines only.
This is not a product specification and does not indicate minimum or maximum operating values.

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com
unitedpolysystems.com ■

MicroPath™

Microduct Piping System

United Poly Systems

MicroPath™ Microduct Piping System

Recent improvements in fiber construction have made microducting and micro-cabling an economical option to traditional cabling products and provide a robust solution for upgrading today's aging infrastructure. MicroPath, United Poly Systems' exclusive Microduct piping system provides a full range of microducting and micro-cabling solutions.

Microduct is ideal for any application where traditional conduit installations occur. It is the best solution for upgrading or replacing existing communications infrastructure and is well suited for tight or constricted areas where this no room for expansion or new installation of traditional cable. Applications include telecommunications providers, utility solutions, hospitals, utility and energy providers, transportation, entertainment, government facilities, corporate complexes, university campuses, military site applications and anywhere high-speed communications are needed.

MicroPath applications

Utility System monitoring and controlling, and networked data communication.

Broadband Network Fiber-to-the-home (FTTH), Fiber-to-the business (FTTB) and Fiber to the X (FTTX) or multiple destinations, providers using optical fiber to provide high speed service to end subscribers and long-haul, backhaul and premise fiber deployments

Hospitals Secure the entire hospital network to stay current with advances in data-intensive medical technology and limits staff and patient disruptions.

Education Adapts new communication technologies for campus environments and allows for interaction between outside organizations nationally and abroad for greater connectivity and collaboration. Promotes distance learning.

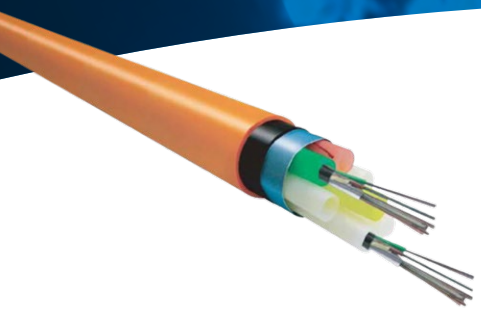
Residential Helps with fiber installations to the home so developers can provide high-speed internet service to their customers while allowing for future upgrades.

Government Fiber installation, additions and changes can be made quickly and enable segmented and secure networks in the same microduct configuration.

Microduct products may be installed in direct burial applications via micro-trenching or in microduct pathways via air blowing techniques or traditional cable pulling/pushing. Microducts future-proof networks since additional fiber cables can be placed at a later time in response to demand and capacity increases. Often additional microducts are installed and left open or vacant, providing pathways for future expansion. Alternatively, higher-density, higher-fiber count microcables can easily be pulled through existing conduit to replace conventional cabling.

Advantages of Microduct over traditional cabling outlays

- Microduct products are easily and quickly installed in direct buried applications using minimally invasive micro-trenching equipment.
- Microduct pathways offer superior mechanical and environmental protection for lightweight microfiber optical cables, which can be easily installed using various air blowing techniques, or traditional cable pulling and/or pushing methods.
- Microduct pathway systems offer telecom carriers increased flexibility due to the ease at which service laterals and drops can be reconfigured and installed as customer demand increases.
- Small diameter microduct products are offered in a wide variety of configurations. This gives carriers the option to install microduct pathways into existing occupied conduits.
- Microducts help to future proof carrier networks as additional fiber cables can be placed at a later time as the demand for additional capacity increases. Whether for additional capacity or for general replacement, fiber optic cables are easily removed and replaced with high-density, higher-fiber count cables.
- Riser-rated microduct products provide safe, flexible, lightweight, durable and easy to-install pathways to deploy bare fiber and microfiber cables inside a multi-dwelling unit (MDU) or commercial building.

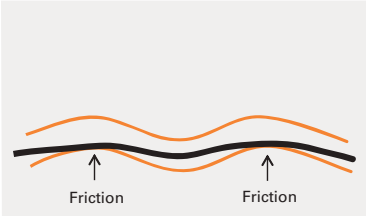


Microduct Fiber Pathway

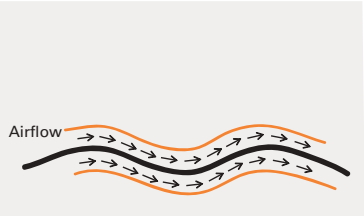
Microduct fiber pathways provide a permanent installation that satisfies your immediate fiber communication requirements and leaves sufficient pathway for future expansions. Any moves, adds or changes in the fiber network are quickly accommodated utilizing the fiber pathway and accessories.

Rapid, safe and smooth installation with air blowing methods (ABC)

ABC installations are done by an air blowing technique that reduces the risk of damage to the fiber cable, accelerates installation time and increases the installation distance.



Pulling



Blowing

Microduct Selection Guidelines

Fiber Counts Installed	1-12C	24-72C	96-144C	216-288C
OD of Cable	1.0-2.0mm	3.2-5.8mm	6.8 - 8.0mm	8.4-9.2mm
Microduct Tube	3.5mm	8mm	10mm	12mm

Select the proper size microduct by using the Microduct Selection Guidelines table.

Conventional Cable and Micro Cable Comparison

	Weight (kg/km)		Max. Outer Diameter (mm)	
Fiber Counts	Conventional Cable	Micro Cable	Conventional Cable	Micro Cable
24, 38, 72	110	30	11	5.8
96	208	40	14	6.8
144	257	50	16	7.8
216	342	65	18	8.4
288	342	90	18	9.2

Cable's OD varies depending on cable brand.

Various Applications

If you have an under utilized conduit?

Direct install (DI) microduct can increase the fiber pathways available for your communication network in your existing conduit. Direct install microduct provides the needed pathway for current fiber cable requirements while allowing for the ease of future fiber moves, adds or changes.

Planning or designing new fiber networks?

Direct bury DB microduct is available in 5/3.5, 8/6,10/8 and 12/10 mm sizes for rapid installation that satisfies both conduit and pathway in one simple installation. This cost effective solution provides for today's needs and allows for future rapid expansion.

Do you want to limit traffic disruptions?

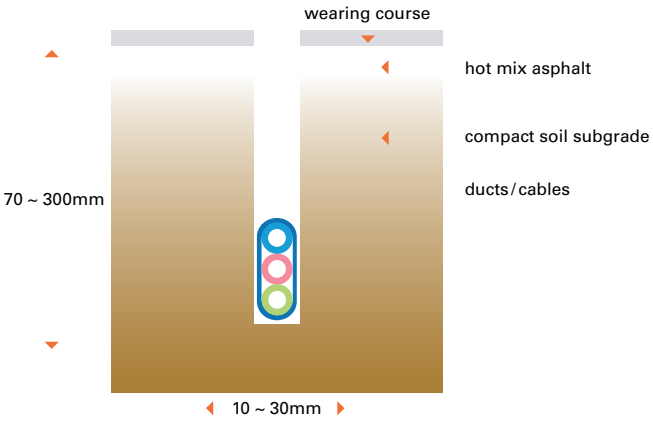
A pronounced benefit of micro trenching is that the process results in minimal traffic disruption, time and material savings and provides higher bandwidth to their customers.

Numerous styles and sizes available:

Direct Bury, Direct Install, Thick Walled Flat Duct, LSZH, Riser, and Aerial in mm sizes 5/3.5, 8/6, 10/8 and 12/10 and Thick Walled 7/3.5,10/6,12/8, 14/10, 16/12, 18/14, and larger size and custom configurations on request

Micro Trenching

- 70-300 mm depth/10-30 mm width
- By dedicated equipment
- Wet cut with Diamond tipped wheel
- Backfill with grout or hot/cold asphalt
- Fast and inexpensive as well

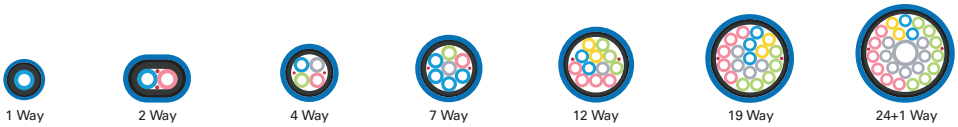


DB (Direct Bury)

- Silicone coated ducts
- Available water blocking tape (aluminum or fabric) installed
- Two layer of sheath
- Available tracer wire, ripcords installed

The outer sheath is rugged high density polyethylene (HDPE) providing excellent protection from the physical environment. An aluminum or non-metalic layer is added to provide additional strength whichresults in crush and impact resistance

Primary Duct	Outside Dimensions H x W (mm)						
Dimensions OD/ID (mm)	1 Way	2 Way	4 Way	7 Way	12 Way	19 Way	24+1 Way
5/3.5mm	12.4	12.4X17.4	19.5	22.4	28.3	32.3	37.9
8/6mm	15.4	15.4X23.4	28.1	32.8	41.2	48.8	56.01
10/8mm	17.4	17.4X27.4	32.9	38.8			
12/10mm	19.4	19.4X31.4	37.8	44.8			

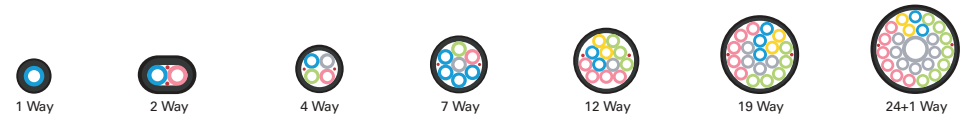


DI (Direct Install)

- Silicone coated ducts
- Available water blocking tape (aluminum or fabric) installed
- Available tracer wire, ripcords installed

The microducts are surrounded by a layer of moisture-barrier metallic or non-metallic tape and a flexible sheath of black HDPE. DI ducts can be installed in pre-existing pipes or sub-ducts.

Primary Duct	Outside Dimensions H x W (mm)						
Dimensions OD/ID (mm)	1 Way	2 Way	4 Way	7 Way	12 Way	19 Way	24+1 Way
5/3.5mm	8.4	8.4 X13.4	15.5	18.4	23.7	27.7	33.3
8/6mm	11.4	11.4X19.4	23.1	27.8	36.2	43.8	51.01
10/8mm	13.4	13.4X23.4	27.9	33.8			
12/10mm	15.4	15.4X27.4	32.8	39.8			



TW (Thick Wall)

Thick Walled Microduct is designed for direct burial. Its superior blowing characteristics and sufficient thickness of the sub duct Walls often results in no additional protective ducts required.

Thick walled microducts can be branched off easily and the primary tube can be directly buried as a single microduct. All TW duct are silicone coated. Available tracer wire, ripcords installed.

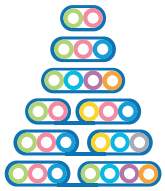
Primary Duct	Outside Dimensions H x W (mm)								
Dimensions OD/ID (mm)	1 Way	3 Way	4 Way	5 Way	6 Way	7 Way	12 Way	19 Way	24+ 1Way
7/3.5mm	9	15.1X16	16.9X16	15.1X16	19.5X21.1	21.1X23	27.2X30	33.2X37	43.6
10/6mm	12	20.7X22	22X22	27.4X28.2	27X29.3	29.3X32	42X37.98	52X46.64	
12/8mm	14	24.4X26	26X26	24.4X38.0	32X34.8	34.8X38			
14/10mm	16	28.1X30	30X30	28.1X44	37X40.2	40.2X44.0			

Flat Duct and Link Duct

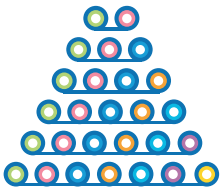
Flat duct and link duct with thick wall is perfectly suitable for micro trenching with proper narrow width and shallow depth. All flat duct are silicone coated. Large duct size is availalbe with folded type or linked type

* Configurations for flat and linked type can be customized.

OD/ID	2 Way		3 Way		4 Way		5 Way		6 Way		7 Way	
7/3.5mm	F		F		F		F		F		F	
10/6mm	F		F		F		F		F		F	
12/8mm	F	L	F	L	F	L	F	L	F	L	F	L
14/10mm	F	L	F	L	F	L	F	L	F	L	F	L
16/12mm	F	L	F	L	F	L	F	L	F	L	F	L
18/14mm	F	L	F	L	F	L	F	L	F	L	F	L
20/16mm	L		L		L		L		L		L	



Flat



Link

4 way
customized configuration

12 way
customized configuration

Indoor Application

LSZH, UL 2024 Riserr rated for indoor microduct installations that are placed in the building raceway.

Primary Duct Dimensions OD/ID (mm)	Outside Dimensions H x W (mm)						
	1 Way	2 Way	4 Way	7 Way	12 Way	19 Way	24+1 Way
5/3.5mm	7.4	7.4X12.4	12.4 X14.5	16.1X17.4	20.4X22.4	26.1X26.7	32.0X32.0
8/6mm	10.4	10.4X18.4	18.4X21.4	24.3X26.4	34.4X31.18	42.4X38.11	49.61X48.63
10/8mm	12.4	12.4X22.4	22.4X22.4	29.7X32.4			
12/10mm	15.4	15.4X27.4	32.8	39.8			

1 Way 2 Way 4 Way 7 Way 12 Way 19 Way 24+1 Way

Aerial

Aerial microduct has been developed to facilitate the use of optical fiber subscriber drop cable. All aerial duct are silicone coated.

High UV resistance for outdoor use

- Metal strength member and metal-free versions available
- Custom microduct configurations and colors available upon request.

Accessories

A complete array of accessories are available to fulfill your fiber pathway needs including: couplers, end caps, reducers, tube branching units, and tube distribution enclosures.

Couplers

Straight, gas blocking, reducers, DBL connectors and end caps

Tube Distribution Closure

Waterproof enclosures designed for blown fiber microcduct connections Branch enclosures provide fast branching for microduct and air brown cable including in-line, T, Y and H enclosures.

T Branch Unit

Tube Distribution Closure

Y Branch Unit

Tools

Duct, round and tube cutters and slitters

Tube Cutter

Duct Cutter

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com

unitedpolysystems.com ■

Power-Line Electrical and High Voltage Conduit

Power-Line is United Poly System's line of conduit used to protect electrical lines. Applications include neighborhood electrical transfer, long distance transfer, municipal applications and Department of Transportation projects where power lines are run alongside highways to power lighting, junction boxes, etc. Power-Line is UL listed for electrical use in these applications. It is available in almost any size and can be shipped on coils, reels or as sticks. It is identified by grey, red or red-striped coloring. A lighting bolt indicator is also available in the print line.

Power-Line is manufactured in IPS (Iron Pipe Size) ¾- to 16-in. diameter and DIPS (Ductile Iron Pipe Size) 4- to 16-in. diameter.

The material requirements for Power-Line meet or exceed ASTM Standard D3350 "Standard Specification for Polyethylene Plastic Pipe and Fittings Materials." ASTM D3350 defines important physical properties of HDPE materials into ranges, or cell classes, so that each property can be defined within a range that is appropriate for the application.

Print Line Information

Power-Line is sequentially marked and identified along its outer length in contrasting color.

The print interval is every two feet and includes the following:

MANUFACTURER'S NAME: United Poly Systems PRODUCT SIZE/SDR

PRODUCTION CODE Date, Location, Period SPECIFICATION

LENGTH OF CONDUIT (in feet)

Optional custom print lines are available and can include customer name, project name and application.

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com

unitedpolysystems.com ■

Options

- Straight longitudinal internal ribbing is available for all pipes 2 in. and below. Uniform straight internal ribs span the length of the pipe.
- Optional custom print lines are available and may include customer name, project name, application and lightning bolt.
- Pull tape is offered in several tensile strengths. United Poly Systems standard pull tape is 1130 lb strength, while options include strengths from 200 to 2500 lb.
- Several colors and stripes are offered to customize the product to the customer project. United Poly Systems offers custom colors upon request.

HDPE Conduit Material Definition according to ASTM F2160

PROPERTY	RANGE OR MINIMUM REQUIREMENT	UNITS	CELL CLASS	TEST METHOD
Density	0.941 - 0.955	g/cc	3	ASTM D 792 or 1505
Melt Index	< 0.25 - 0.40	g/10 minutes	3 or 4	ASTM D 1238
Flexural Modulus	110,000 - 160,000	psi	4 or 5	ASTM D 790
Tensile Strength	3000 - 4000	psi	4 or 5	ASTM D 638
Environmental Stress Crack Resistance	F20 > 192	Hours (condition C)	3 or 4	ASTM D 1693
HDB	Not Defined		0, 1, 2, 3 or 4	ASTM D 2837

These are nominal values and used as guidelines only.
This is not a product specification and does not indicate minimum or maximum operating values.

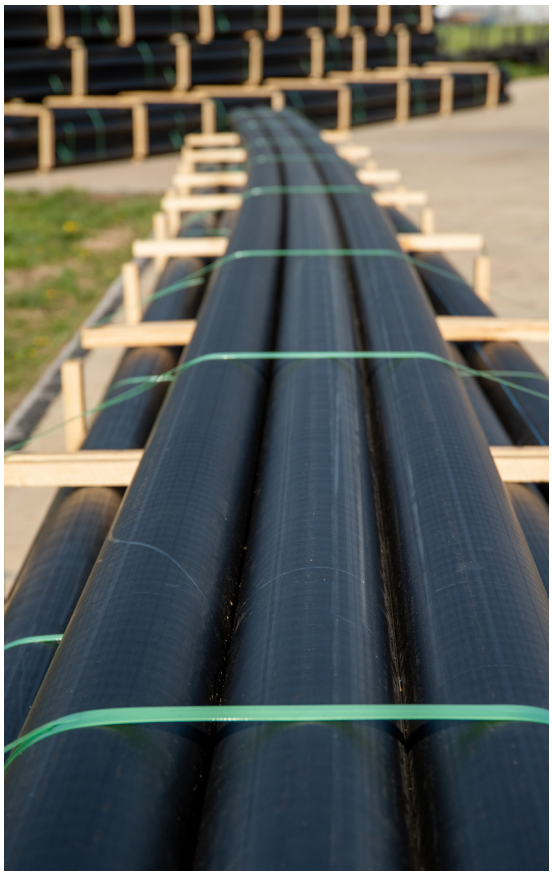
United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com
unitedpolysystems.com ■

Pro-Line PVC Replacement

Pro-Line is United Poly Systems PVC replacement product for power utility, electrical, telecom, energy and infrastructure applications and can also be used for water flow line/water transmission. Pro-Line is UL listed and is available in 20-, 40- and 50-ft lengths.

Pro-Line is manufactured in IPS (Iron Pipe Size) size from ¾- to 8-in. diameter. Pro-Line is manufactured in grey or black with striping options. It is available with a factory-attached coupler, so the product is ready for installation once delivered to the project site.



Benefits

- Flexibility
- More installation methods available for Pro-Line when compared to copper pipe
- Better resistance to cold/ultra-cold temperatures
- Durable; crush and impact resistant
- No corrosion when compared to copper pipe
- No solder joints when installing. HDPE fusion joints are stronger than solder joints.
- Lower cost
- Longer life span of HDPE, 50 to 100 years

Installation Methods

Pro-Line can be installed in existing conduit or via plow, direct burial or HDD (horizontal directional drilling) installation methods.

Print Line Information

Pro-Line is sequentially marked and identified along its outer length in contrasting color. The print interval is every 2 ft and includes the following:

MANUFACTURER'S NAME: United Poly Systems PRODUCT SIZE/SDR

PRODUCTION CODE Date, Location, Period SPECIFICATION

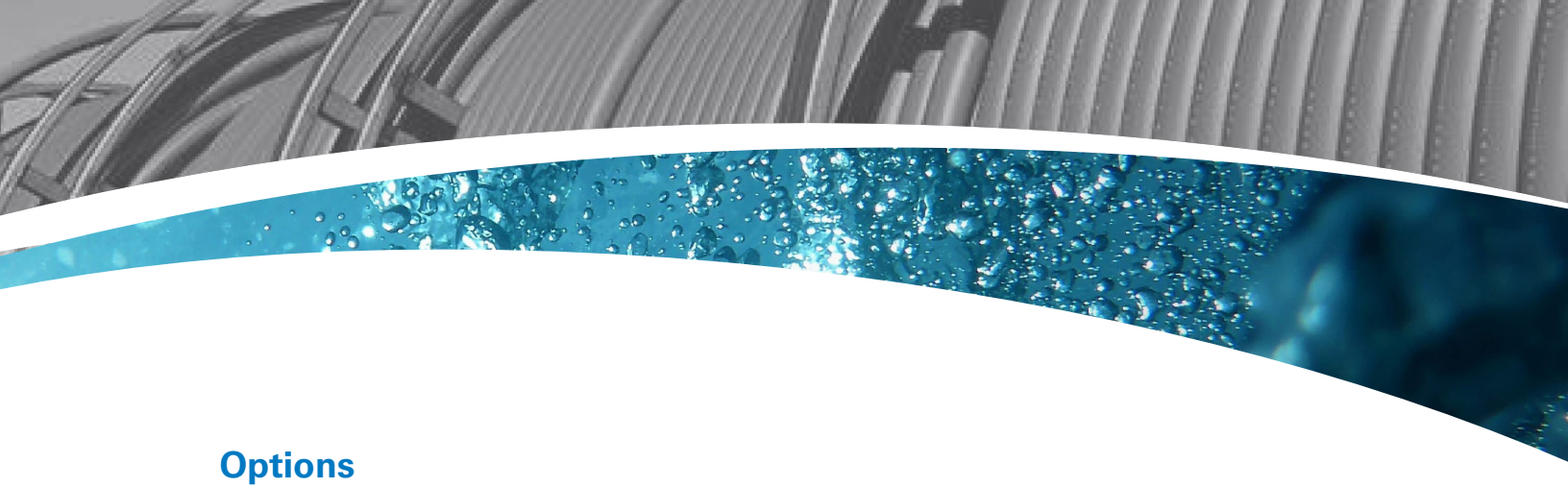
LENGTH OF CONDUIT (in feet) on reel

Optional custom print lines are available and may include customer name, project name, and application.

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com

unitedpolysystems.com ■



Options

Optional custom print lines are available and may include customer name, project name, application and lightning bolt.

Pull tape is offered in several tensile strengths. United Poly Systems standard pull tape is 1130 lb strength, while other options include strengths from 200 to 2500 lb.

HDPE conduit material definition according to ASTM F2160

PROPERTY	RANGE OR MINIMUM REQUIREMENT	UNITS	CELL CLASS	TEST METHOD
Density	0.941 - 0.955	g/cc	3	ASTM D 792 or 1505
Melt Index	< 0.25 - 0.40	g/10 minutes	3 or 4	ASTM D 1238
Flexural Modulus	110,000 - 160,000	psi	4 or 5	ASTM D 790
Tensile Strength	3000 - 4000	psi	4 or 5	ASTM D 638
Environmental Stress Crack Resistance	F20 > 192	Hours (condition C)	3 or 4	ASTM D 1693
HDB	Not Defined		0, 1, 2, 3 or 4	ASTM D 2837

These are nominal values and used as guidelines only.
This is not a product specification and does not indicate minimum or maximum operating values.

The material requirements for HDPE conduit are classified in accordance with ASTM Standard D3350 "Standard Specification for Polyethylene Plastic Pipe and Fittings Materials." ASTM D3350 defines important physical properties of HDPE materials into ranges, or cell classes, so that each property can be defined within a range that is appropriate for the application. The product has been NSF international tested to assure compliance with UL 651A on applicable sizes.

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com
unitedpolysystems.com ■

UL Listed Sizes SDR 13.5, SCH 40 and SCH 80

IPS SIZE	AVG. OD	SDR	SCH 40	SCH 80
¾ in.	1.05 in.	Min Wall Avg ID Weight p/ft	0.113 0.804 0.215	0.154 0.0722 0.188
1 in.	1.315 in.	Min Wall Avg ID Weight p/ft	0.133 0.804 0.145	0.179 0.936 0.277
1¼ in.	1.66 in.	Min Wall Avg ID Weight p/ft	0.140 1.360 0.291	0.191 1.255 0.383
1½ in.	1.90 in.	Min Wall Avg ID Weight p/ft	0.145 1.59 0.349	0.200 1.476 0.465
2 in.	2.375 in.	Min Wall Avg ID Weight p/ft	0.154 2.047 0.469	0.218 1.913 0.644
3 in.	3.50 in.	Min Wall Avg ID Weight p/ft	0.216 3.042 0.973	0.300 2.864 1.315
4 in.	4.50 in.	Min Wall Avg ID Weight p/ft	0.300 2.864 1.315	0.337 3.786 1.923
5 in.	5.563 in.	Min Wall Avg ID Weight p/ft	0.337 3.786 1.923	
6 in.	6.625 in.	Min Wall Avg ID Weight p/ft	0.337 3.786 1.923	

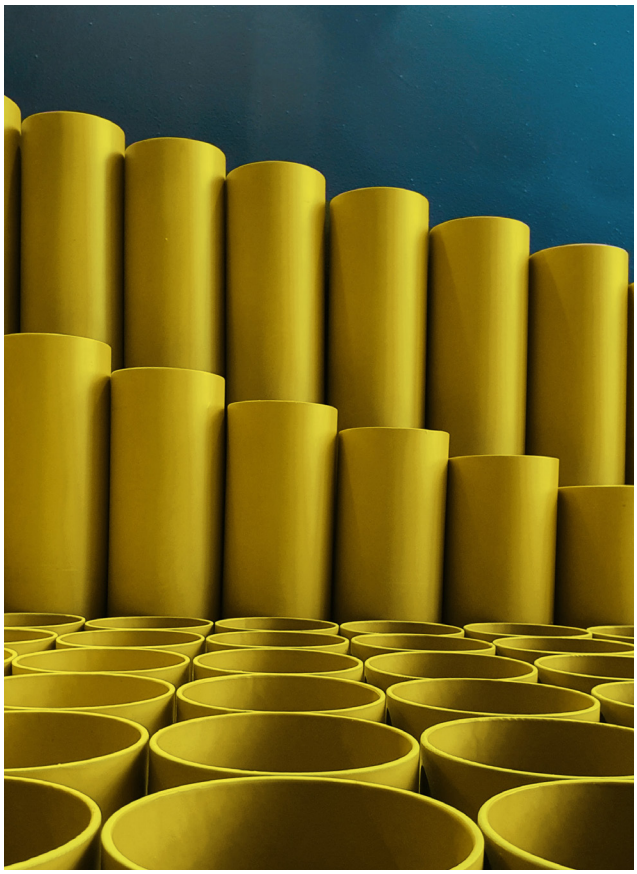
These are nominal values and used as guidelines only.
This is not a product specification and does not indicate minimum or maximum operating values.

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com
unitedpolysystems.com ■

Sleeve-It

Sleeve-It is United Poly System's HDPE product for gas line protection. Although many companies use traditional PVC for gas line protection, disruptions in the PVC supply chain and the superior product benefits of Sleeve-It make it a better choice for gas line protection.



Similar to Pro-Line, a coupler can be attached during manufacturing, making Sleeve-It ready for installation once delivered to the project site. Sleeve-It is not pressure rated and is color identified as yellow or black with a yellow stripe. It is available in ¾ in. through 6 in. diameter and is available on reels, coils and in 20-, 40- and 50-ft sticks.

The material requirements for Sleeve-It meet or exceed ASTM Standard D3350 "Standard Specification for Polyethylene Plastic Pipe and Fittings Materials." ASTM D3350 defines important physical properties of HDPE materials into ranges, or cell classes, so that each property can be defined within a range that is appropriate for the application. Sleeve-It is manufactured per product specification SDR SCH 40 with conduit materials per ASTM F2160.

Print Line Information

Sleeve-It is sequentially marked and identified along its outer length in contrasting color.

The print interval is every 2 ft and includes the following:

MANUFACTURER'S NAME: United Poly Systems PRODUCT SIZE/SDR

PRODUCTION CODE Date, Location, Period SPECIFICATION

"GAS SLEEVE ONLY"

LENGTH OF CONDUIT (in feet)

Optional custom print lines are available and may include customer name, project name, and application.

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com

unitedpolysystems.com ■

Conduit

HDPE Conduit Material Definition According to ASTM F2160

PROPERTY	RANGE OR MINIMUM REQUIREMENT	UNITS	CELL CLASS	TEST METHOD
Density	0.941 - 0.955	g/cc	3	ASTM D 792 or 1505
Melt Index	< 0.25 - 0.40	g/10 minutes	3 or 4	ASTM D 1238
Flexural Modulus	110,000 - 160,000	psi	4 or 5	ASTM D 790
Tensile Strength	3000 - 4000	psi	4 or 5	ASTM D 638
Environmental Stress Crack Resistance	F20 > 192	Hours (condition C)	3 or 4	ASTM D 1693
HDB	Not Defined		0, 1, 2, 3 or 4	ASTM D 2837

Available Sizes

IPS Size	AVG OD		SCH 40
¾ in.	1.05	Min Wall Avg. ID Weight p/ft	0.113 0.804 0.215
1 in.	1.31	Min Wall Avg. ID Weight p/ft	0.133 0.804 0.145
1 ¼ in.	0.66	Min Wall Avg. ID Weight p/ft	0.140 1.360 0.291
1 ½ in.	1.90	Min Wall Avg. ID Weight p/ft	0.145 1.59 0.349
2 in.	2.375	Min Wall Avg. ID Weight p/ft	0.154 2.047 0.469
2 ½ in.	2.87	Min Wall Avg. ID Weight p/ft	0.203 2.445 0.744
3 in.	3.50	Min Wall Avg. ID Weight p/ft	0.216 3.042 0.973
4 in.	4.50	Min Wall Avg. ID Weight p/ft	0.237 3.998 1.387
5 in.	5.563	Min Wall Avg. ID Weight p/ft	0.258 5.016 1.882
6 in.	6.62	Min Wall Avg. ID Weight p/ft	0.280 6.031 2.443

These are nominal values and used as guidelines only.
This is not a product specification and does not indicate minimum or maximum operating values.

United Poly Systems

4707 E. Kearney, Springfield, MO 65803 ■ 417.708.9887 ■ Sales@unitedpolysystems.com
unitedpolysystems.com ■

United Poly Systems

Contact us today to find out how UPS can help on your next project.

Request a Quote Now

unitedpolysystems.com/quote

Phone: (417) 708-9887
Fax: (417) 427-6134
Email: sales@unitedpolysystems.com

unitedpolysystems.com