

# INNERDUCT

ELECTRICAL - DATA - COMMUNICATION





## **Plenum Conduit - FT6**

Gravenhurst Plenum Conduit is a flexible, non-metallic, corrugated raceway used for effective cable and fiber optic management within interior raceways.

Gravenhurst Plenum meets UL-(910) standards for the National Electrical Code, Article 770, and satisfies UL 2024 and CSA C22.2 No. 262 for flame propagation (maximum flame spread 5') and smoke density (less than .5).

Gravenhurst Plenum is offered in 1", 1 1/4", 1 1/2" & 2" diameters with pre-installed pull tape for easy cable identification. The standard colour is orange and is offered in a variety of other colours. Sequential marked footage is standard.

Custom options, such as multiple colours per reel and split conduit, are also available.

Plenui	n Reels						
			Nominal	Nominal			Reel
Size	Colour	Part No.	I.D.	O.D.	Pull Tape	Reel Size	Length
1"	Orange	P-100R-500	1.049"	1.350"	900 LB	36-36-21	500 FT
1"	Orange	P-100R-1000	1.049"	1.350"	900 LB	36-36-21	1000 FT
1"	Orange	P-100R-2000	1.049"	1.350"	900 LB	44-36-21	2000 FT
1"	Orange	P-100R-5000	1.049"	1.350"	900 LB	66-41-24	5000 FT
1"	Orange	P-100R-9000	1.049"	1.350"	900 LB	82-41-24	9000 FT
1 1/4"	Orange	P-125R-700	1.250"	1.560"	900 LB	36-36-21	700 FT
1 1/4"	Orange	P-125R-1500	1.250"	1.560"	900 LB	44-36-21	1500 FT
1 1/4"	Orange	P-125R-3400	1.250"	1.560"	900 LB	66-41-24	3400 FT
1 1/4"	Orange	P-125R-6000	1.250"	1.560"	900 LB	82-41-24	6000 FT
1 1/2"	Orange	P-150R-500	1.570"	1.800"	900 LB	36-36-21	500 FT
1 1/2"	Orange	P-150R-1000	1.570"	1.800"	900 LB	48-41-24	1000 FT
1 1/2"	Orange	P-150R-2500	1.570"	1.800"	900 LB	66-41-24	2500 FT
2"	Orange	P-200R-700	2.000"	2.349"	900 LB	48-41-24	700 FT
2"	Orange	P-200R-2000	2.000"	2.349"	900 LB	82-41-24	2000 FT









Plenui	m Coils						
			Nominal	Nominal			Coil
Size	Colour	Part No.	I.D.	O.D.	Pull Tape	вох	Length
1"	Orange	P-100C-250	1.049"	1.350"	900 LB	31-15-32	250 FT
1"	Orange	P-100C-500	1.049"	1.350"	900 LB	40-15-40	500 FT
1 1/4"	Orange	P-125C-250	1.250"	1.560"	900 LB	31-15-32	250 FT
1 1/4"	Orange	P-125C-500	1.250"	1.560"	900 LB	40-15-40	500 FT
1 1/2"	Orange	P-150C-350	1.570"	1.800"	900 LB	40-15-40	350 FT
2"	Orange	P-200C-250	2.000"	2.349"	900 LB	40-15-40	250 FT

#### Test Results (Test Method UL-2024)

Properties	Value
Smoke Peak Optical	0.02
Smoke Average Optical Density	0.01
Max. Flame Spread Distance (FT)	1.50'
Max. Flame Temperature	554F



## **Riser Conduit - FT4**

Gravenhurst Riser Conduit is a flexible, non-metallic, corrugated raceway used for effective cable and fiber optic management within interior raceways.

Gravenhurst Riser meets UL-(1666) standards safety test for flame propagation, height of electrical and optical fiber cables installed vertically in shafts as well as UL-2024 standards for safety optical fiber cable raceway.

Gravenhurst Riser is offered in 1", 1 1/4", 1 1/2" & 2" diameters with pre-installed pull tape for easy cable identification. The standard colour is orange and is offered in a variety of other colours. Sequential marked footage is standard.

Custom options, such as multiple colours per reel and split conduit, are also available.

Riser Reels							
			Nominal	Nominal			Reel
Size	Colour	Part No.	I.D.	O.D.	Pull Tape	Reel Size	Length
1"	Orange	R-100R-500	1.049"	1.350"	900 LB	36-36-21	500 FT
1"	Orange	R-100R-1000	1.049"	1.350"	900 LB	36-36-21	1000 FT
1"	Orange	R-100R-2000	1.049"	1.350"	900 LB	44-36-21	2000 FT
1"	Orange	R-100R-5000	1.049"	1.350"	900 LB	66-41-24	5000 FT
1"	Orange	R-100R-9000	1.049"	1.350"	900 LB	82-41-24	9000 FT
1 1/4"	Orange	R-125R-700	1.250"	1.560"	900 LB	36-36-21	700 FT
1 1/4"	Orange	R-125R-1500	1.250"	1.560"	900 LB	44-36-21	1500 FT
1 1/4"	Orange	R-125R-3400	1.250"	1.560"	900 LB	66-41-24	3400 FT
1 1/4"	Orange	R-125R-6000	1.250"	1.560"	900 LB	82-41-24	6000 FT
1 1/2"	Orange	R-150R-500	1.570"	1.800"	900 LB	36-36-21	500 FT
1 1/2"	Orange	R-150R-1000	1.570"	1.800"	900 LB	48-41-24	1000 FT
1 1/2"	Orange	R-150R-2500	1.570"	1.800"	900 LB	66-41-24	2500 FT
2"	Orange	R-200R-700	2.000"	2.349"	900 LB	48-41-24	700 FT
2"	Orange	R-200R-2000	2.000"	2.349"	900 LB	82-41-24	2000 FT









Riser (	Riser Coils							
			Nominal	Nominal			Coil	
Size	Colour	Part No.	I.D.	O.D.	Pull Tape	вох	Length	
1"	Orange	R-100C-250	1.049"	1.350"	900 LB	31-15-32	250 FT	
1"	Orange	R-100C-500	1.049"	1.350"	900 LB	40-15-40	500 FT	
1 1/4"	Orange	R-125C-250	1.250"	1.560"	900 LB	31-15-32	250 FT	
1 1/4"	Orange	R-125C-500	1.250"	1.560"	900 LB	40-15-40	500 FT	
1 1/2"	Orange	R-150C-350	1.570"	1.800"	900 LB	40-15-40	350 FT	
2"	Orange	R-200C-250	2.000"	2.349"	900 LB	40-15-40	250 FT	

#### Test Results (Test Method UL-2024)

Properties	Value
Max. Flame Spread Distance (FT)	6.0 Feet
Max. Air Temperature at 12 Feet	372 F
Flexural Modulus ASTM D790	9,200psi
Vicat Melt Point ASTM D789	420 F



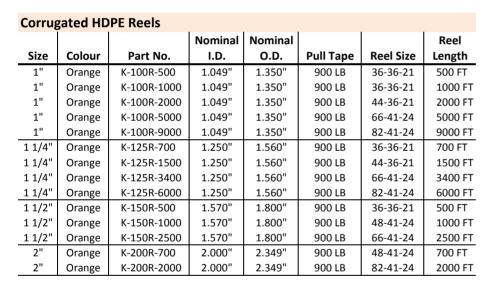
# **Corrugated HDPE**

Gravenhurst Corrugated HDPE Conduit is manufactured from High Density Polyethylene (HDPE) and is intended to be placed inside of existing innerduct or on its own as a light duty raceway in non Riser or Plenum applications.

This lightweight product offers maximum flexibility, and allows for installation in small or restricted areas. Corrugated HDPE is available in 1",  $1\ 1/4$ ",  $1\ 1/2$ " & 2" diameters.

The standard colour is orange and is offered in a variety of other colours.

Custom options, such as multiple colours per reel and split conduit, are also available.



Corrug	Corrugated HDPE Coils							
			Nominal	Nominal			Coil	
Size	Colour	Part No.	I.D.	O.D.	Pull Tape	вох	Length	
1"	Orange	K-100C-250	1.049"	1.350"	900 LB	31-15-32	250 FT	
1"	Orange	K-100C-500	1.049"	1.350"	900 LB	40-15-40	500 FT	
1 1/4"	Orange	K-125C-250	1.250"	1.560"	900 LB	31-15-32	250 FT	
1 1/4"	Orange	K-125C-500	1.250"	1.560"	900 LB	40-15-40	500 FT	
1 1/2"	Orange	K-150C-350	1.570"	1.800"	900 LB	40-15-40	350 FT	
2"	Orange	K-200C-250	2.000"	2.349"	900 LB	40-15-40	250 FT	







## **Smooth Wall HDPE Conduit**

Gravenhurst Solid wall High Density Polyethylene Pipe (HDPE) is manufactured from the highest quality resins to the requirements of ASTM F2160. Gravenhurst Solid Wall High Density Polyethylene Pipe (HDPE) is ideally suited for Outside Plant installations for Data, Communication, Telephone and General Purpose.

Gravenhurst HDPE's long lengths and tensile strength make it the ideal product for horizontal drilling and direct plowing applications. The pipe is flexible, light weight, durable and extremely chemically resistant for an increased installed life span.

Gravenhurst's HDPE is available with a pre-installed slick tape or cable (C.I.C.), comes, if specified, with longitudinal inner ribs, lubed inner wall, or trace wire. Every reel has sequential footage markings.





<b>HDPE Soli</b>	HDPE Solid Wall Conduit							
Size	Size			Nominal	Nominal	Minimum	Weight	Standard Reel
Inches	MM	SDR	Part No.	I.D.	O.D.	Wall	Lbs/Foot	Lengths (Ft / M)
3/4"	20	17	SDR170-075-	0.906"	1.050"	0.062"	0.090	2500 / 762
1"	25	17	SDR170-100-	1.141"	1.315"	0.077"	0.137	2500 / 762
1 1/4"	32	17	SDR170-125-	1.444"	1.660"	0.098"	0.218	2500 / 762
1 1/2"	40	17	SDR170-150-	1.656"	1.900"	0.112"	0.278	3000 / 914
2"	50	17	SDR170-200-	2.075"	2.375"	0.140"	0.428	2500 / 762
1/2"	12	13.5	SDR135-050-	0.696"	0.840"	0.062"	0.071	2500 / 762
3/4"	20	13.5	SDR135-075-	0.874"	1.050"	0.078"	0.108	2500 / 762
1"	25	13.5	SDR135-100-	1.101"	1.315"	0.097"	0.166	2500 / 762
1 1/4"	32	13.5	SDR135-125-	1.394"	1.660"	0.123"	0.260	2500 / 762
1 1/2"	40	13.5	SDR135-150-	1.598"	1.900"	0.141"	0.338	3000 / 914
2"	50	13.5	SDR135-200-	2.002"	2.375"	0.176"	0.523	2500 / 762
2 1/2"	65	13.5	SDR135-250-	2.430"	2.875"	0.213"	0.770	1500 / 457
3"	75	13.5	SDR135-300-	2.951"	3.500"	0.259"	1.150	1300 / 396
4"	100	13.5	SDR135-400-	3.794"	4.500"	0.333"	1.900	750 / 229
1/2"	12	11	SDR110-050-	0.668"	0.840"	0.076"	0.083	2500 / 762
3/4"	20	11	SDR110-075-	0.839"	1.050"	0.095"	0.128	2500 / 762
1"	25	11	SDR110-100-	1.051"	1.315"	0.119"	0.200	2500 / 762
1 1/4"	32	11	SDR110-125-	1.332"	1.660"	0.151"	0.314	2500 / 762
1 1/2"	40	11	SDR111-150-	1.588"	1.900"	0.173"	0.408	3000 / 914
2"	50	11	SDR111-200-	1.917"	2.375"	0.216"	0.630	2500 / 762
3"	75	11	SDR111-300-	2.840"	3.500"	0.318"	0.135	1300 / 396
4"	100	11	SDR111-400-	3.650"	4.500"	0.409"	0.224	750 / 229

- \*\* Longer or shorter reel lengths, plus coils, are available on request.
- \*\* Standard stocked colours are black and orange other colours are available on request.
- \*\* SDR 9, Schedule 40 & Schedule 80 HDPE Conduit are available on request.







#### Multi - Duct

Gravenhurst Multi-Duct Conduit is manufactured from High Density Polyethylene (HDPE) and provides a directional drilling pipe that has long continuous lengths eliminating the need for expensive couplings every 20 feet.

Gravenhurst multi-Duct comes complete with a rugged outer pipe and 3 or 4 pre installed inner ducts. The inner ducts are colour co-ordinated to make connections accurately. Inner ducts can be empty, with pull tape, or with pre-installed cables.

Gravenhurst Multi-Duct reel lengths are CUSTOM EXTRUDED to your specified lengths. This enables you to plan your "between vault or manhole distances" and install the pipe without the need to cut or couple. Each reel will be extruded to your exact length and sequentially marked and tagged for accuracy.

#### **Multi-Duct Options**

			Inner [	Inner Duct Dimensions		
Outer Pipe OD	Inner Ducts	Code	O.D.	I.D.	Wall	Lbs/Ft
4" Schedule 40	3 Cells	MD4X3	1.660"	1.445"	0.098"	2.01
4" Schedule 40	4 Cells	MD4X4	1.315"	1.140"	0.077"	1.90
3" Schedule 40	4 Cells	MD3X4	1.050"	0.906"	0.062"	1.28

<sup>\*\*</sup> Innerduct options include solid wall or corrugated.

# Segmented reels

#### **Segmented Reel options**

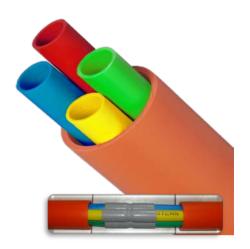
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Size	Maximum Put Ups
1"	9,000 feet on 96" Steel Reel
1 1/4"	9,000 feet on 102" Steel Reel
1 1/4"	7,500 feet on 96" Steel Reel
1 1/2"	5,000 feet on 96" Steel Reel

<sup>\*</sup> Other custom options are available on request

#### Cable-In-Conduit

#### **Cable-In-Conduit options**

Gravenhurst Plastics State of the Art extrusion facility is ideally set up for cable-in-conduit placement. Any diameter of cable can be placed in HDPE conduit during the extrusion process. Any type of cable, power, communication or data can be custom placed, custom colour coded and extruded to pre-determined length. Pipe and cable can then be placed in the ground through open trench, plow or directional drill method in one quick qnd cost effective step saving both installation time and money.



The custom made reel lengths are designed to eliminate the need for couplings. However, should the need arise, we supply a full line of Multi-Duct Couplers.













Can-Loc - Directional Drill PVC Lengths

## **GRAVENHURST FITTINGS/ACCESSORIES**

#### **Compression Couplings**



SIZE	PART #
1/2"	CC-1/2
3/4"	CC-3/4
1"	CC-1
1 1/4"	CC-1-1/4
1 1/2"	CC-1-1/2
2"	CC-2
2 1/2"	CC-2-1/2
3"	CC-3/4
4"	CC-4

## Hand Tight Expansion Plugs with Pulling Eye



SIZE	PART #
1/2"	PP-1/2
3/4"	PP-3/4
1"	PP-1/2
1 1/4"	PP-1-1/4
1 1/2"	PP-1-1/2
2"	PP-2
	i

#### **Vinyl Easy-Pull Nipple Caps**



SIZE	PART #
1/2"	NC-1/2
3/4"	NC-3/4
1"	NC-1/2
1 1/4"	NC-1-1/4

#### **Temporary Tapered Plugs**



SIZE	PARI#
1/2"	TP-1/2
3/4"	TP-3/4
1"	TP-1
1 1/4"	TP-1-1/4
1 1/2"	TP-1-1/2
2"	TP-2

#### **Universal Aluminum Threaded Couplings**



SIZE	PART #
1/2"	AC-1/2
3/4"	AC-3/4
1"	AC-1
1 1/4"	AC-1-1/4
1 1/2"	AC-1-1/2
2"	AC-2

**Innerduct Couplings** 



	SIZE	PART #	PART #
		Plenum	Riser
•	1"	PC-1	RC-1
	1 1/4"	PC-1-1/4	RC-1-1/4
	1 1/2"	PC-1-1/2	RC-1-1/2
	2"	PC-2	RC-2

#### **Yellow Guy Guards**



PART # GGY-2m

#### 1800# Pull Tape



PART #	
PT-1800	

\*\*2,000 Meter Reels

#### **Innerduct Terminal Adapters**



SIZE	PART #	PART #
	Plenum	Riser
1"	PTA-1	RTA-1
1 1/4"	PTA-1-1/4	RTA-1-1/4
1 1/2"	PTA-1-1/2	RTA-1-1/2
2"	PTA-2	RTA-2

#### 3/4" PVC UV Sleeve for HDPE



SIZE	PART#
3/4" x 4'	SL-3/4

\*\* Fits over 3/4" HDPE pipe

## **Polyethylene Road Markers**



SIZE	PART #
1 1/4"	RM-1-1/4



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### Disclaimer

The information provided in this brochure are not intended to provide all the relevant information for the use and installation of Gravenhurst products. Please consult any pertinent local codes prior to installation of these products. If you have any questions pertaining to the information in this brochure please contact Gravenhurst's Technical Services at the numbers listed below.

## Warranty

G.P.L and T.P.I.L. products are guaranteed against defects resulting from faulty workmanship or materials. We will replace or allow credit, at our option, for products found to be deffective, provided the purchaser gives immediate written notice of defects, and provided that inspection by G.P.L. or T.P.I.L. establishes the validity of the claim. Deffective products will be replaced free of charge, including the shipping charges for the for the replacement product. Claims for labour costs or other expenses will not be allowed. The warranty to replace or allow credit shall constitute fulfillment of all G.P.L.'s or T.P.I.L.'s obligations and warranties, and shall be in lieu of all other warranties expressed or implied. G.P.L. or T.P.I.L. shall not be liable for consequential or any other damage whatsoever nature or kind.

