

# Carlton® Innerduct Guide

## WHERE IS INNERDUCT BEING USED?

### INSIDE THE BUILDING

#### Plenum

- Must be UL Listed
- Plenum cable must be installed
- Color: Industry standard=orange
- Pull tape pre-installed in 1" through 2"

#### General Purpose & Riser

- Must be UL Listed
- Riser rated cable must be used in riser applications
- Color: Industry standard=orange

NOTE: HDPE innerduct will NOT meet code

#### Options

- Color
- Factory installed pull lines
- Split duct
- Custom print line
- Two, Three, or Four Way Parallel

### OUTSIDE THE BUILDING

#### Pulled into a Conduit

- True sized duct recommended 1.00" ID or 1.25" ID
- Corrugated duct for newer conduit runs & shorter distance pulls
- Solidwall for older conduit runs & longer distance pulls

#### Plowed or Trenched

- SDR sized duct recommended (1 1/4" or larger)
- SDR 13 wall thickness for non-rocky soil conditions
- SDR 11 wall thickness for rocky conditions

#### Options

- Color
- Striping
- Factory installed pull lines
- Segmented or paralleled reels
- Pre-lubricated duct

**2002 NEC CODE CHANGE:** The 2002 NEC, Articles 770 and 800 require the removal of abandoned cables. Specifying and installing UL Listed innerducts with the anticipation of future upgrades provides the building owner with a low cost solution for the removal of abandoned cables.

# Carlson Riser-Gard®

**Applications:** Riser and General Purpose Applications per Articles 770 and 800. Suitable for vertical runs in a shaft or between floors  
**UL Listed to 2024** • Maximum Flame Propagation 6.0 ft. Max. Value

## Standard Stock – Reels

	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull Tape	Reel Size (F x W)	Reel Length (ft.)	Wt. per 100 ft. (lbs.)
3/4"	Orange	DE4X1-1000	.83"	1.05"	Empty	36" x 24"	1000	9
	Orange	DE4X1-1000S	.83"	1.05"	Empty	36" x 24"	1000/Split	9
1"	Orange	DF4X1C-500R	1.03"	1.31"	900 lb.	48" x 24"	500	14
	Orange	DF4X1C-1000	1.03"	1.31"	900 lb.	48" x 32"	1000	14
	Orange	DF4X1-1500	1.03"	1.31"	Empty	48" x 32"	1500	14
	Orange	DF4X1C-1500	1.03"	1.31"	900 lb.	48" x 32"	1500	14
	Orange	DF4X1-1500S	1.03"	1.31"	Empty	48" x 32"	1500/Split	14
	Orange	DF4X1C-2700	1.03"	1.31"	900 lb.	48" x 48"	2700	14
	Orange	DF4X1C-5200	1.03"	1.31"	900 lb.	65" x 46"	5200	14
	Orange	DF4X1C-7000	1.03"	1.31"	900 lb.	72" x 44"	7000	14
	Orange	DF4X1C-8000	1.03"	1.31"	900 lb.	82" x 41"	8000	14
	Orange	DF4X1C-9400	1.03"	1.31"	900 lb.	84" x 44"	9400	14
1 1/4"	Orange	DG4X1C-500R	1.38"	1.66"	900 lb.	48" x 32"	500	17
	Orange	DG4X1-900	1.38"	1.66"	900 lb.	48" x 32"	900	17
	Orange	DG4X1C-900	1.38"	1.66"	900 lb.	48" x 32"	900	17
	Orange	DG4X1-900S	1.38"	1.66"	Empty	48" x 32"	900/Split	17
	Orange	DG4X1C-1600	1.38"	1.66"	900 lb.	48" x 48"	1600	17
	Orange	DG4X1C-3200	1.38"	1.66"	900 lb.	65" x 48"	3200	17
	Orange	DG4X1C-4500	1.38"	1.66"	900 lb.	72" x 44"	4500	17
	Orange	DG4X1C-5600	1.38"	1.66"	900 lb.	84" x 44"	5600	17
	Orange	DG4X1C-6500	1.38"	1.66"	900 lb.	82" x 41"	6500	17
	Orange	DH4X1-750S	1.57"	1.90"	Empty	48" x 32"	750/Split	22
1 1/2"	Orange	DH4X1C-1200	1.57"	1.90"	900 lb.	48" x 48"	1200	22
	Orange	DH4X1C-4000	1.57"	1.90"	900 lb.	82" x 41"	4000	22
	Orange	DH4X1C-4500	1.57"	1.90"	900 lb.	84" x 44"	4500	22
2"	Orange	DJ4X1-500S	2.02"	2.37"	Empty	48" x 32"	500/Split	26
	Orange	DJ4X1C-700	2.02"	2.37"	900 lb.	48" x 48"	700	26
	Orange	DJ4X1C-2000	2.02"	2.37"	900 lb.	82" x 41"	2000	26
	Orange	DJ4X1C-2800	2.02"	2.37"	900 lb.	96" x 44"	2800	26

## Standard Stock – Coils

(Overnight Shippable)

	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull Tape	Coil Length (ft.)	Wt. per 100 ft. (lbs.)
3/4"	Orange	DE4X1-350	.83"	1.04"	Empty	350	9
	Orange	DE4X1-350S	.83"	1.04"	Empty	350/Split	9
1"	Orange	DF4X1-250	1.05"	1.31"	Empty	250	14
	Orange	DF4X1C-250	1.05"	1.31"	900 lb.	250	14
	Orange	DF4X1-250S	1.05"	1.31"	Empty	250/Split	14
1 1/4"	Orange	DF4X1C-500	1.05"	1.31"	900 lb.	500	14
	Orange	DG4X1-200	1.38"	1.65"	Empty	200	17
	Orange	DG4X1C-200	1.38"	1.65"	900 lb.	200	17
	Orange	DG4X1-200S	1.38"	1.65"	Empty	200/Split	17
1 1/2"	Orange	DG4X1C-500	1.38"	1.65"	900 lb.	500	17
	Orange	DH4X1C-150	1.55"	1.88"	900 lb.	150	22
2"	Orange	DH4X1-150S	1.55"	1.88"	Empty	150/Split	22
	Orange	DJ4X1C-100	2.04"	2.35"	900 lb.	100	26
2"	Orange	DJ4X1-100S	2.04"	2.35"	Empty	100/Split	26

### Custom Orders

- \* Custom Orders are not returnable
- \* Custom lengths are available in minimum order quantities of 1000 ft.
- \* Custom color runs are available in minimum order quantities of 10,000 ft.

### Options:

- Two, three, or four way parallel
- Custom print line

### How to Build a Part Number:

Position 1 - Product	Position 2 - Size	Position 3 - Configuration	Position 4 - Wall	Position 5 - Color	Position 6 - Pull Line	Position 7 - Length
D = Riser-Gard	E = 3/4" F = 1" G = 1-1/4" H = 1-1/2" J = 2"	4 = Corrugated	X = Standard	1 = Orange 2 = Blue 3 = Gray 4 = White 5 = Green 6 = Black 7 = Yellow 8 = Red 9 = Brown	C = 900 lb. Tape	Example -1000 = Feet -1000S = 1000 Feet Split

# Carlon Plenum-Gard®

**Applications:** Plenum, Riser and General Purpose Applications per Articles 770 and 800

**UL Listed to 2024 Standard**

- Maximum flame propagation distance is less than 5.0 ft.
- The peak optical density of smoke is less than 0.50
- The average optical density of smoke is less than 0.15

**NOTE:** Plenum-Gard is manufactured from Kynar Flex® PVDF resin. Kynar Flex® is a registered trademark of Atofina Chemicals, Inc.

## Standard Stock – Reels

	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull Tape	Reel Size (F x W)	Reel Length (ft.)	Wt. per 100 ft. (lbs.)
3/4"	Orange	CE4X1-1000	.83"	1.04"	Empty	36" x 24"	1000	8
	Orange	CE4X1-1000S	.83"	1.04"	Empty	36" x 24"	1000/Split	8
	White	CE4X4-1000	.83"	1.04"	Empty	34" x 28"	1000	8
1"	Orange	CF4X1C-500	1.05"	1.31"	900 lb.	36" x 24"	500	10
	Orange	CF4X1C-1000	1.05"	1.31"	900 lb.	48" x 32"	1000	10
	Orange	CF4X1C-1500	1.05"	1.31"	900 lb.	48" x 32"	1500	10
	Orange	CF4X1-1500S	1.05"	1.31"	Empty	48" x 32"	1500/Split	10
	Orange	CF4X1C-5200	1.05"	1.31"	900 lb.	65" x 48"	5200	10
	Orange	CF4X1C-8000	1.05"	1.31"	900 lb.	82" x 41"	8000	10
1 1/4"	White	CF4X4C-500	1.05"	1.31"	900 lb.	36" x 24"	500	10
	White	CF4X4C-1500	1.05"	1.31"	900 lb.	48" x 32"	1500	10
	White	CF4X4C-5200	1.05"	1.31"	900 lb.	65" x 46"	5200	10
	Orange	CG4X1C-500	1.38"	1.65"	900 lb.	36" x 24"	500	16
	Orange	CG4X1C-900	1.38"	1.65"	900 lb.	48" x 32"	900	16
	Orange	CG4X1-900S	1.38"	1.65"	Empty	48" x 32"	900/Split	16
1 1/2"	Orange	CG4X1C-1600	1.38"	1.65"	900 lb.	48" x 46"	1600	16
	Orange	CG4X1C-3200	1.38"	1.65"	900 lb.	65" x 48"	3200	16
	Orange	CG4X1C-6500	1.38"	1.65"	900 lb.	96" x 41"	6500	16
	White	CG4X4C-900	1.38"	1.65"	900 lb.	48" x 32"	900	16
	White	CG4X4C-3200	1.38"	1.65"	900 lb.	65" x 46"	3200	16
	Orange	CH4X1C-350	1.55"	1.88"	900 lb.	48" x 32"	350	20
2"	Orange	CH4X1C-1200	1.55"	1.88"	900 lb.	48" x 46"	1200	20
	Orange	CH4X1C-4000	1.55"	1.88"	900 lb.	82" x 41"	4000	20
	White	CH4X4C-1200	1.55"	1.88"	900 lb.	48" x 46"	1200	20
2"	Orange	CJ4X1C-225	2.04"	2.35"	900 lb.	48" x 32"	225	23
	Orange	CJ4X1C-700	2.04"	2.35"	900 lb.	48" x 46"	700	23
	Orange	CJ4X1C-1400	2.04"	2.35"	900 lb.	72" x 41"	1400	23
	Orange	CJ4X1C-2000	2.04"	2.35"	900 lb.	82" x 41"	2000	23
	White	CJ4X4C-700	2.04"	2.35"	900 lb.	48" x 46"	700	23

## Standard Stock – Coils

(Overnight Shippable)

	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull Tape	Coil Length (ft.)	Wt. per 100 ft. (lbs.)
3/4"	Orange	CE4X1-350	.83"	1.04"	Empty	350	8
	Orange	CE4X1-350S	.83"	1.04"	Empty	350/Split	8
	White	CE4X4-350	.83"	1.04"	Empty	350	8
1"	Orange	CF4X1C-100	1.05"	1.31"	900 lb.	100	10
	Orange	CF4X1C-250	1.05"	1.31"	900 lb.	250	10
	Orange	CF4X1-250S	1.05"	1.31"	Empty	250	10
	Orange	CF4X1-250S	1.05"	1.31"	Empty	250/Split	10
	White	CF4X4C-250	1.05"	1.31"	900 lb.	250	10
	White	CF4X4C-250	1.05"	1.31"	900 lb.	250	10
1 1/4"	Orange	CG4X1C-200	1.38"	1.65"	900 lb.	200	16
	Orange	CG4X1-200S	1.38"	1.65"	Empty	200/Split	16
	White	CG4X4C-200	1.38"	1.65"	900 lb.	200	16
	White	CG4X4C-500	1.38"	1.65"	900 lb.	500	16
1 1/2"	Orange	CH4X1C-150	1.55"	1.88"	900 lb.	150	20
	Orange	CH4X1-150S	1.55"	1.88"	Empty	150/Split	20
	White	CH4X4C-150	1.55"	1.88"	900 lb.	150	20
2"	Orange	CJ4X1C-100	2.04"	2.35"	900 lb.	100	23
	Orange	CJ4X1-100S	2.04"	2.35"	Empty	100/Split	23
	White	CJ4X4C-100	2.04"	2.35"	900 LBS.	100	23

## Custom Orders

- \* Custom Orders are not returnable
- \* Custom lengths are available in minimum order quantities of 1000 ft.
- \* Custom color runs are available in minimum order quantities of 10,000 ft.

## Options:

- Two, three, or four way parallel
- Custom print line

## How to Build a Part Number:

Position 1 - Product	Position 2 - Size	Position 3 - Configuration	Position 4 - Wall	Position 5 - Color	Position 6 - Pull Line	Position 7 - Length
C = Plenum-Gard	E = 3/4" F = 1" G = 1-1/4" H = 1-1/2" J = 2"	4 = Corrugated	X = Standard	1 = Orange 2 = Blue 3 = Gray 4 = White 5 = Green 6 = Black 7 = Yellow 8 = Red 9 = Brown	C = 900 lb. Tape	Example -1000 = Feet -1000S = 1000 Feet Split

# Carlton General Purpose Duct

**Applications:** General Purpose Applications per Articles 770 and 800.

## Standard Stock – Reels

	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull Tape	Reel Size	Reel Length (ft.)	Wt. per 100 ft. (lbs.)
<b>1"</b>	Orange	BF4X1B-8000	1.05	1.31	1130 lbs.	84" x 45"	8000	14
<b>1 1/4"</b>	Orange	BG4X1B-5600	1.38	1.65	1130 lbs.	84" x 45"	5600	17
<b>1 1/2"</b>	Orange	BH4X1B-4500	1.55	1.88	1130 lbs.	84" x 45"	4500	22
<b>2"</b>	Orange	BJ4X1B-2000	2.04	2.35	1130 lbs.	84" x 45"	2000	26

### Custom Orders

- \* Custom Orders are not returnable
- \* Custom lengths are available in minimum order quantities of 1000 ft.
- \* Custom color runs are available in minimum order quantities of 10,000 ft.

### Options:

- Two, three, or four way parallel
- Custom print line

### How to Build a Part Number:

Position 1 - Product	Position 2 - Size	Position 3 - Configuration	Position 4 - Wall	Position 5 - Color	Position 6 - Pull Line	Position 7 - Length
B = General Purpose	E = 3/4" F = 1" G = 1-1/4" H = 1-1/2" J = 2"	4 = Corrugated	X = Standard	1 = Orange 2 = Blue 3 = Gray 4 = White 5 = Green 6 = Black 7 = Yellow 8 = Red 9 = Brown	B = 1130 lb. Tape	Example -1000 = Feet -1000S = 1000 Feet Split

# Carlton Hal-Free Riser-Gard®

**Applications:** Tunnels, Laboratories, and High-Tech Environments per Articles 770 and 800  
**UL Listed to 2024** • Maximum Flame Propagation 3'6" Max. Value

## Standard Stock – Reels

	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull Tape	Reel Size	Reel Length (ft.)	Wt. per 100 ft. (lbs.)
<b>1"</b>	White	HF4X4C-5000	1.290	1.340	900 lbs.	72" x 41"	5000	6.8
<b>1 1/4"</b>	White	HG4X4C-4000	1.515	1.565	900 lbs.	72" x 41"	4000	8.8
<b>1 1/2"</b>	White	HH4X4C-2000	1.775	1.825	900 lbs.	66" x 41"	2000	11.4
<b>2"</b>	White	HJ4X4C-2000	2.398	2.425	900 lbs.	82" x 41"	2000	19.8

### Custom Orders

- \* Custom Orders are not returnable
- \* Custom lengths are available in minimum order quantities of 1000 ft.

### How to Build a Part Number:

Position 1 - Product	Position 2 - Size	Position 3 - Configuration	Position 4 - Wall	Position 5 - Color	Position 6 - Pull Line	Position 7 - Length
H = Hal-Free	F = 1" G = 1-1/4" H = 1-1/2" J = 2"	4 = Corrugated	X = Standard	4 = White	C = 900 lb. Tape	Example -1000 = Feet -1000S = 1000 Feet Split

# Carlson Corrugated HDPE (High Density Polyethylene)

## Standard Stock – Reels

	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull Tape	Reel Size	Reel Length (ft.)	Wt. per 100 ft. (lbs.)
1"	Orange	A5D2S1JNNB1000	1.049	1.365	1130 lb.	48-30-24	1000	12.5
	Orange	A5D2S1JNNB1800	1.049	1.365	1130 lb.	48-30-24	1800	12.5
	Orange	A5D2S1JNNB2000	1.049	1.365	1130 lb.	48-41-24	2000	12.5
	Orange	A5D2S1JNNB2700	1.049	1.365	1130 lb.	48-41-24	2700	12.5
	Orange	A5D2S1JNNB5000	1.049	1.365	1130 lb.	66-41-24	5000	12.5
	Orange	A5D2S1JNNB6500	1.049	1.365	1130 lb.	72-41-24	6500	12.5
	Orange	A5D2S1JNNB7000	1.049	1.365	1130 lb.	72-45-24	7000	12.5
	Orange	A5D2S1JNNB8000	1.049	1.365	1130 lb.	82-41-24	8000	12.5
1 1/4"	Orange	A6D2S1JNNB1000	1.250	1.550	1130 lb.	48-30-24	1000	14.4
	Orange	A6D2S1JNNB1600	1.250	1.550	1130 lb.	48-41-24	1600	14.4
	Orange	A6D2S1JNNB2500	1.250	1.550	1130 lb.	66-41-24	2500	14.4
	Orange	A6D2S1JNNB4000	1.250	1.550	1130 lb.	66-41-24	4000	14.4
	Orange	A6D2S1JNNB5000	1.250	1.550	1130 lb.	72-41-24	5000	14.4
	Orange	A6D2S1JNNB6000	1.250	1.550	1130 lb.	82-41-24	6000	14.4
	Orange	A6D2S1JNNB7000	1.250	1.550	1130 lb.	84-45-24	7000	14.4
1 1/2"	Orange	A9D2S1JNNB1000	1.500	1.850	1130 lb.	66-41-24	1000	17.8
	Orange	A9D2S1JNNB2200	1.500	1.850	1130 lb.	66-41-24	2200	17.8
	Orange	A9D2S1JNNB2900	1.500	1.850	1130 lb.	72-41-24	2900	17.8
	Orange	A9D2S1JNNB4000	1.500	1.850	1130 lb.	82-41-24	4000	17.8
2"	Orange	A13D2S1JNNB1000	2.000	2.425	1130 lb.	66-41-24	1000	25.0
	Orange	A13D2S1JNNB1500	2.000	2.425	1130 lb.	66-41-24	1500	25.0
	Orange	A13D2S1JNNB1800	2.000	2.425	1130 lb.	72-41-24	1800	25.0
	Orange	A13D2S1JNNB2000	2.000	2.425	1130 lb.	82-41-24	2000	25.0
	Orange	A13D2S1JNNB500	2.000	2.425	1130 lb.	48-30-24	500	25.0
	Orange	A13D2S1JNNB750	2.000	2.425	1130 lb.	48-41-24	750	25.0

## Standard Stock – Coils

	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull Tape	Box Size	Reel Length (ft.)	Wt. per 100 ft. (lbs.)
1"	Orange	A5D2E1JNNA250	1.049	1.365	Empty	COIL	250/Split	12.5
	Orange	A5D2E1JNNA250B	1.049	1.365	Empty	34-14-34	250/Split	12.5
	Orange	A5D2S1JNNB250	1.049	1.365	1130 lb.	COIL	250	12.5
	Orange	A5D2S1JNNB250B	1.049	1.365	1130 lb.	34-14-34	250	12.5
	Orange	A5D2S1JNNB500	1.049	1.365	1130 lb.	COIL	500	12.5
	Orange	A5D2S1JNNB500B	1.049	1.365	1130 lb.	39-15-39	500	12.5
	Orange	A6D2E1JNNA250	1.250	1.550	Empty	COIL	250/Split	14.4
	Orange	A6D2E1JNNA250B	1.250	1.550	Empty	39-15-39	250/Split	14.4
1 1/4"	Orange	A6D2S1JNNB250	1.250	1.550	1130 lb.	COIL	250	14.4
	Orange	A6D2S1JNNB250B	1.250	1.550	1130 lb.	39-15-39	250	14.4
	Orange	A6D2S1JNNB500	1.250	1.550	1130 lb.	COIL	500	14.4
	Orange	A6D2S1JNNB500B	1.250	1.550	1130 lb.	44-18-44	500	14.4
	Orange	A9D2S1JNNB250	1.500	1.850	1130 lb.	COIL	250	17.8
	Orange	A9D2S1JNNB250B	1.500	1.850	1130 lb.	44-18-44	250	17.8
	Orange	A9D2S1JNNB500	1.500	1.850	1130 lb.	COIL	500	17.8
2"	Orange	A13D2S1JNNB250	2.000	2.425	1130 lb.	COIL	250	25.0

## Custom Orders

- \* Custom Orders are not returnable
- \* Custom lengths are available in minimum order quantities of 1000 ft.

## How to Build a Part Number:

Product	Size	Type	SDR	Options	Splits	Color	Stripes	Tape	Length
A = HDPE	5 = 1" 6 = 1-1/4" 9 = 1-1/2" 13 = 2"	D = Corrugated	2 = None	E = Slit S = Standard	1 = 1 Way	A = Black B = Blue C = Brown D = Buff E = Gray F = Green G = Lilac H = Lt. Green J = Orange K = Red L = Terra Cotta M = White N = Yellow	NN = None 3A = Black Stripes 3B = Blue Stripes 3C = Brown Stripes 3D = Buff Stripes 3E = Gray Stripes 3F = Green Stripes 3G = Lilac Stripes 3H = Lt. Green Stripes 3J = Orange Stripes 3K = Red Stripes 3L = Terra Cotta Stripes 3M = White Stripes 3N = Yellow Stripes	A = Empty B = 1130 lbs. Polyester Tape	1500 (Equals 1500 Feet)

# Pyramid Industries Plenum Duct

**Applications:** Plenum, Riser and General Purpose Applications per Articles 770 and 800.

- UL Listed to 2024 Standard**
- Maximum flame propagation distance is less than 5.0 ft.
  - The peak optical density of smoke is less than 0.50
  - The average optical density of smoke is less than 0.15

## Standard Stock – Reels

	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull Tape	Reel Size	Reel Length (ft.)
1"	White	PLM100T-1800	1.049	1.365	900 lb.	48-30-24	1800
	White	PLM100T-5000	1.049	1.365	900 lb.	72-41-24	5000
	White	PLM100T-8000	1.049	1.365	900 lb.	82-41-24	8000
1 1/4"	White	PLM125T-1000	1.250	1.550	900 lb.	48-30-24	1000
	White	PLM125T-5000	1.250	1.550	900 lb.	72-41-24	5000
	White	PLM125T-6000	1.250	1.550	900 lb.	82-41-24	6000
1 1/2"	White	PLM150T-2000	1.500	1.850	900 lb.	66-41-24	2000
	White	PLM150T-4000	1.500	1.850	900 lb.	82-41-24	4000
2"	White	PLM200T-2000	2.000	2.425	900 lb.	82-41-24	2000

## Standard Stock – Coils/Box

	Color	Part No.	Nom. I.D.	Nom. O.D.	Pull Tape	Box Size	Coil Length (ft.)
1"	White	PLM100T-250B2	1.049	1.365	900 lb.	34-14-34	250
1 1/4"	White	PLM125T-250B4	1.250	1.550	900 lb.	39-15-39	250
	White	PLM125T-500	1.250	1.550	900 lb.	-	500
1 1/2"	White	PLM150T-250B3	1.500	1.850	900 lb.	44-18-44	250

## Custom Orders

- \* Custom Orders are not returnable
- \* Custom lengths are available in minimum order quantities of 1000 ft.
- \* Custom color runs are available in minimum order quantities of 10,000 ft.

## Options:

- Size: 3/4"
- Split Duct
- Color: Black, Blue, Grey, Green, Red, Orange, Brown and Yellow
- Custom print line
- Two, three, or four way parallel

**Carlon**<sup>®</sup>  
LAMSON & SESSIONS