Heavy Wall Rigid Schedule 40 Utility Conduit

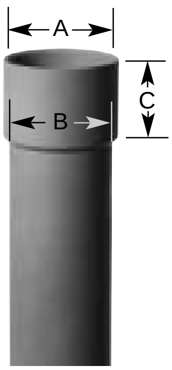
Non-UL Listed

- Rated for 90°C conductors or cable
- For direct earth burial and concrete encasement, specifically designed for the power utility specifications.

With Integral Bell*

*Limited geographical area

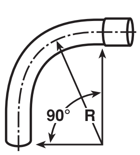
Part No. 20'	Part No. 10'	Std. Crate Qty. 20'	Std. Crate Qty. 10'	Nom. Size	Dimensions O.D.	Dimensions I.D.	Wall	Wt. Per 100'
59610-020	59610-010	4500'	2250'	1/2"	1.900	1.610	.145	56
59611-020	59611-010	2800'	1400'	2"	2.375	2.067	.154	75
59612-020	59612-010	1860'	930'	2 1/2"	2.875	2.469	.203	124
59613-020	59613-010	1760'	880'	3"	3.500	3.068	.216	172
59615-020	59615-010	1140'	570'	4"	4.500	4.026	.237	244
59616-020	59616-010	760'	380'	5"	5.563	5.047	.258	331
59617-020	59617-010	520'	260'	6"	6.625	6.065	.280	430
59618-020	59618-010	300'	150'	8"	8.625	7.981	.322	647

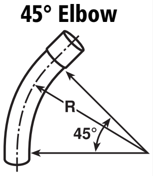


Dimensions in Inches of Utility Conduit Integral Bells

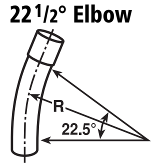
Trade Size	A At Entrance Maximum	A At Entrance Minimum	B At Bottom Maximum	B At Bottom Minimum	C Nominal Bell Depth
1 1/2	1.926	1.916	1.911	1.901	2.750
2	2.405	2.395	2.386	2.376	3.250
2 1/2	2.911	2.901	2.887	2.877	3.250
3	3.543	3.533	3.513	3.503	3.875
4	4.549	4.539	4.514	4.504	3.875
5	5.619	5.609	5.578	5.568	4.625
6	6.692	6.682	6.641	6.631	5.625
8	8.692	8.682	8.614	8.631	6.375

Deep Socket Schedule 40 Utility Elbows with Integral Belled Ends

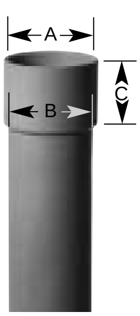




Segment	Part No.	Nom. Diameter	Radius (in.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
90° Elbow	UC9BHB	1 1/2"	12"	20	25.00
	UC9DHB	1 1/2"	24"	1	2.13
	UC9FHB	1 1/2"	36"	1	3.05
	UC9BJB	2"	12"	1	1.44
	UC9DJB	2"	24"	1	2.82
	UC9FJB	2"	36"	1	4.14
	UC9HJB	2"	48"	1	5.15
	UC9DKB	2 1/2"	24"	1	5.00
	UC9FKB	2 1/2"	36"	1	7.15
	UC9DLB	3"	24"	1	6.57
	UC9FLB	3"	36"	1	9.15
	UC9DNB	4"	24"	1	10.59
	UC9FNB	4"	36"	1	13.64
	UC9HNB	4"	48"	1	17.72
	UC9FRB	6"	36"	1	25.80
	UC9HRB	6"	48"	1	32.24
45° Elbow	UC7FHB	1 1/2"	36"	1	1.74
	UC7FJB	2"	36"	1	2.07
	UC7CKB	2 1/2"	18"	1	2.27
	UC7FKB	2 1/2"	36"	1	4.12
	UC7FLB	3"	36"	1	5.00
	UC7FNB	4"	36"	1	8.15
	UC7HNB	4"	48"	1	9.36
	UC7HRB	6"	48"	1	17.19
	UC7ITB	8"	60"	1	33.00



Segment	Part No.	Nom. Diameter	Radius (in.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
22 1/2° Elbow	UC5CKB	2 1/2"	18"	1	1.45
	UC5FKB	2 1/2"	36"	1	2.49
	UC5FNB	4"	36"	1	5.18
	UC5FRB	6"	36"	1	11.82
	UC5HNB	4"	48"	1	5.57

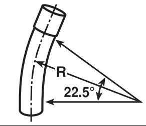
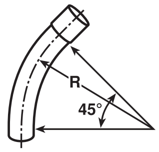
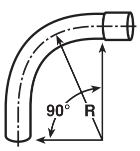


Dimensions in Inches of Utility Elbows Bells

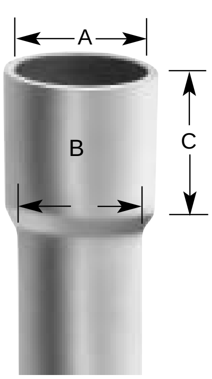
Trade Size	A At Entrance Max.	A At Entrance Min.	B At Bottom Max.	B At Bottom Min.	C Nominal Bell Max.	C Nominal Bell Min.
1 1/2	1.926	1.916	1.900	1.888	2.750	2.500
2	2.405	2.395	2.381	2.357	2.875	2.625
2 1/2	2.911	2.901	2.875	2.861	3.125	2.875
3	3.543	3.533	3.500	3.484	3.125	2.875
4	4.549	4.539	4.500	4.482	3.750	3.500
5	5.619	5.609	5.563	5.543	4.250	4.000
6	6.692	6.682	6.625	6.603	5.250	5.000
8	8.692	8.682	8.641	8.631	6.250	6.000

Non-UL Listed

Elbows – Long Belled

	Part Number	Nom. Diameter	Radius (In.)	Std. Ctn. Qty.	Std. Ctn. Wt. (lbs.)
22 1/2° Elbow 	UC5FRBLB	6"	36	1	9.6
45° Elbow 	UC7CJBLB	2"	18	1	1.3
	UC7DJBLB	2"	24	1	1.4
	UC7DLBLB	3"	24	1	5.0
	UC7DNBLB	4"	24	1	5.8
	UC7DPBLB	5"	24	1	8.5
	UC7FJBLB	2"	36	1	2.2
	UC7FLBLB	3"	36	1	5.2
	UC7FNBLB	4"	36	1	7.8
	UC7FPBLB	5"	36	1	11.1
	UC7FRBLB	6"	36	1	9.6
	UC7HJBLB	2"	48	1	2.8
	UC7HLBLB	3"	48	1	6.6
	UC7HNBLB	4"	48	1	9.7
	UC7HPBLB	5"	48	1	13.7
	UC7HRBLB	6"	48	1	18.1
90° Elbow 	UC7CJBLB	2"	18	1	1.3
	UC7DJBLB	2"	24	1	1.4
	UC7DLBLB	3"	24	1	5.0
	UC7DNBLB	4"	24	1	5.8
	UC7DPBLB	5"	24	1	8.5
	UC7FJBLB	2"	36	1	2.2
	UC7FLBLB	3"	36	1	5.2
	UC7FNBLB	4"	36	1	7.8
	UC7FPBLB	5"	36	1	11.1
	UC7FRBLB	6"	36	1	9.6
	UC7HJBLB	2"	48	1	2.8
	UC7HNBLB	4"	48	1	9.7
	UC7HPBLB	5"	48	1	13.7
	UC7HRBLB	6"	48	1	18.1

Integral Belled End Dimensions



Trade Size	A At Entrance (in.)		B At Bottom (in.)		C Nominal Bell Depth (in.)
	Maximum	Minimum	Maximum	Minimum	
1 - 1 1/2"	1.924	1.912	1.900	1.888	2 3/4"
2"	2.399	2.387	2.375	2.363	3 1/4"
2 - 2 1/2"	2.897	2.883	2.875	2.861	3 1/4"
3"	3.523	3.507	3.500	3.484	4"
4"	4.524	4.506	4.500	4.482	4 3/4"
5"	5.603	5.583	5.563	5.543	5 3/4"
6"	6.669	6.647	6.625	6.603	6 1/4"

Typical Properties of Conduit Raw Material Compound

Thermal

	ASTM Test	Typical Values
Co-efficient of Thermal Expansion-inch/inch/°F (properties @ 73.4°F)	D696	3.38 x 10^{-5}
Heat Distortion °F at 264 psi	D648	160°F
Thermal Conductivity BTU (hr.) (ft.) (°F/in.)	N/A	1.3

Mechanical

	ASTM Test	Typical Values
Specific Gravity	D792	1.43 - 1.6
Tensile Strength (psi) @ 73.4°F	D638	5,000-6,500
Izod Impact ft lbs./in. of notch	D256	0.65 - 1.5
Flexural Strength (psi)	D790	12,500
Compressive Strength (psi)	D695	9,000
Hardness (Durometer D)	D2240	85

Electrical

	ASTM Test	Typical Values
Dielectrical Strength volts/mil	D149	1100
Dielectric Constant 60 CPS @ 30°C	D150	4.00
Power Factor 60 CPS @ 30°C	D150	1.93

Impedance (Volts lost per ampere per 100 feet)

	3∅90% P.F.	80% P.F.	1∅90% P.F.	80% P.F.
Steel Conduit	.0118	.0123	.0136	.0142
Schedule 40®	.0105	.0106	.0121	.0122

Using 250 KCmil Cu. conductor. comparable values for other conductor sizes.

Wire Fill

Maximum number of conductors in Schedule 40 PVC conduit

(Based on Table 1, Chapter 9 of the NEC)

Type Letters	Conductor Size AWG, MCM	Trade Size 1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/4	5	6	8
THWN	14	13	24	39	69	94	154								
	12	10	18	29	51	79	114	164							
	10	6	11	18	32	44	73	194	160						
	8	3	5	9	19	22	36	51	71	106	136				
	6	1	4	6	11	15	26	37	57	76	98	125	154		
THHN	4	1	2	4	7	9	16	22	35	47	60	75	94	137	236
FEP	3	1	1	3	6	8	13	19	29	39	51	64	90	116	201
(14 thru 2)	2	1	1	3	5	7	11	16	25	33	43	54	67	97	169
FEPB	1		1	1	3	5	9	12	18	25	32	49	59	72	125
(14 thru 8)	1/0		1	1	3	4	7	10	15	21	27	33	42	61	105
PFA	2/0		1	1	2	3	6	8	13	17	22	28	35	51	88
(14 thru 4/0)	3/0		1	1	1	3	5	7	11	14	18	23	29	42	73
PFAH	4/0		1	1	1	2	4	6	9	12	15	19	24	35	61
(14 thru 4/0)	250			1	1	1	3	4	7	10	12	16	20	28	49
Z	300			1	1	1	3	4	6	8	11	13	17	24	42
(14 thru 4/0)	350			1	1	1	2	3	5	7	9	12	15	21	37
XHHW	400				1	1	1	3	5	6	8	10	13	19	33
(4 thru	500				1	1	1	2	4	5	7	9	11	16	27
500MCM)	600				1	1	1	1	3	4	5	7	9	13	22
	700					1	1	1	3	4	5	6	8	11	19
	750					1	1	1	2	3	4	6	7	11	19
	6	1	3	5	9	13	21	30	47	63	81	102	128	185	320
	600				1	1	1	1	3	4	5	7	9	13	22
XHHW	700					1	1	1	3	4	5	6	7	11	19
	750					1	1	1	2	3	4	6	7	10	18

Weight Comparison

Carlon Schedule 40® rigid nonmetallic conduit compared to other rigid conduit in pounds per 100 feet (approx.)

Nom. Size	Carlon Schedule 40® Rigid Nonmetallic Conduit	Carlon Schedule 80® Rigid Nonmetallic Conduit	Aluminum	Electrical Metallic Tubing (EMT)	Inter-mediate Metal Conduit (IMC)	Rigid Metal Conduit (RMC)
1/2	18	22	27	30	57	79
3/4	23	29	36	46	78	105
1	35	43	53	66	112	153
1 1/4	48	60	70	96	114	201
1 1/2	57	72	86	112	176	246
2	76	100	116	142	230	334
2 1/2	125	153	183	230	393	527
3	164	212	239	270	483	690
3 1/2	198		288	350	561	831
4	234	310	340	400	625	982
5	317	431	465	Not Made	Not Made	1344
6	412	592	612	Not Made	Not Made	1770

Maximum number of conductors in Schedule 80 PVC conduit

(Based on Table 1, Chapter 9 of the NEC)

Conductor Size AWG, MCM		Trade Size 1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5
# 14	THW	4	8	13	24	34	57	82	128		
	THHN	10	19	33	58	81	135	194	0		
12	THW	3	6	11	20	28	47	67	105	183	
	THHN	8	14	24	43	60	100	144	0		
10	THW	3	5	9	16	22	37	54	85	148	
	THHN	5	9	15	27	38	64	92	143		
8	THW	1	2	4	8	11	19	28	44	77	121
	THHN	1	4	7	13	18	31	45	70	123	195
6	THW	1	1	3	6	8	14	20	32	56	88
	THHN	1	3	5	9	13	22	32	50	88	140
4	THW	0	1	2	4	6	10	15	24	42	66
	THHN	1	1	3	6	8	13	20	31	54	86
3	THW	0	1	1	4	5	9	13	20	36	57
	THHN	1	1	2	5	7	11	17	26	46	73
2	THW	0	1	1	3	4	8	11	17	31	49
	THHN	1	1	1	4	5	9	14	22	38	61
1	THW	0	1	1	1	3	5	8	13	22	35
	THHN	0	1	1	3	4	7	10	16	28	45
0	THW	0	0	1	1	2	4	7	11	19	30
	THHN	0	1	1	2	3	6	8	13	24	38
00	THW	0	0	1	1	1	4	6	9	16	26
	THHN	0	1	1	1	3	5	7	11	20	32
000	THW	0	0	1	1	1	3	5	8	14	22
	THHN	0	0	1	1	2	4	6	9	16	26
0000	THW	0	0	1	1	1	3	4	6	11	18
	THHN	0	0	1	1	1	3	5	8	14	22
250	THW	0	0	0	1	1	1	3	5	9	14
	THHN	0	0	0	1	1	2	4	6	11	18
300	ThW	0	0	0	1	1	1	3	4	8	13
	THHN	0	0	0	1	1	1	3	5	9	15
350	THW	0	0	0	1	1	1	2	4	7	11
	THHN	0	0	0	1	1	1	3	4	8	13
400	THW	0	0	0	0	1	1	1	3	6	10
	THHN	0	0	0	1	1	1	2	4	7	12
500	THW	0	0	0	0	1	1	1	3	5	8
	THHN	0	0	0	0	1	1	1	3	6	10
600	THW	0	0	0	0	0	1	1	1	4	7
	THHN	0	0	0	0	1	1	1	3	5	8
700	THW	0	0	0	0	0	1	1	1	3	6

Expansion and Contraction

Temperature Considerations for Rigid Nonmetallic Conduit Compensation for Linear Expansion

Like all construction materials, PVC will expand or contract with variations in temperatures. The coefficient of linear expansion in PVC conduit is 3.38 x 10^{-5} in./in./°F as compared to 1.2 x 10^{-5} for aluminum and 0.6 x 10^{-5} for steel. An expansion coupling is needed whenever the change in length due to temperature variation will exceed 1/2 in.

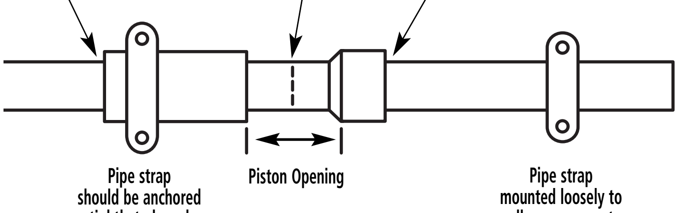
Add 30°F to the estimated temperature range when conduit is installed in direct sunlight to allow for radiant heating.

An expansion coupling consists of two sections of conduit, one telescoping inside another. When installing expansion couplings, alignment of piston and barrel is important. Be sure to mount expansion joint level for best performance.

For a vertical run, the expansion coupling must be installed close to the top of the run with the barrel jointing down, in order that rain water does not run into the opening. The lower end of the conduit run must be secured at the bottom so that any length change due to temperature variation will result in an upward movement.

Expansion Characteristics of PVC Rigid Nonmetallic Conduit
Coefficient of Thermal Expansion = 3.38 x 10^{-5} in./in./°F

Temperature Change in Degrees F	Length Change in inches per 100 Ft. of PVC Conduit	Temperature Change in Degrees F	Length Change in inches per 100 Ft. of PVC Conduit	Temperature Change in Degrees F	Length Change in inches per 100 Ft. of PVC Conduit	Temperature Change in Degrees F	Length Change in inches per 100 Ft. of PVC Conduit
5	0.2	55	2.2	105	4.2	155	6.3
10	0.4	60	2.4	110	4.5	160	6.5
15	0.6	65	2.6	115	4.7	165	6.7
20	0.8	70	2.8	120	4.9	170	6.9
25	1.0	75	3.0	125	5.1	175	7.1
30	1.2	80	3.2	130	5.3	180	7.3
35	1.4	85	3.4	135	5.5	185	7.5
40	1.6	90	3.6	140	5.7	190	7.7
45	1.8	95	3.8	145	5.9	195	7.9
50	2.0	100	4.1	150	6.1	200	8.1



Determine the Piston Opening

The expansion joint must be installed to allow both expansion and contraction of the conduit run. The correct piston opening for any installation condition should use the following formula:

$$O = \left[\frac{T\ max - T\ installed}{\Delta T} \right] E$$

Where:

- O = Piston opening (in.)
- T max = Maximum anticipated temperature of conduit (°F)
- T inst. = Temperature of conduit at time of installation (°F)
- Δ T = Total change in temperature of conduit (°F)
- E = Expansion allowance built into each expansion coupling (in.)

Example

380 ft. of conduit is to be installed on the outside of a building exposed to the sun in a single straight run. It is expected that the conduit will vary in temperature from 0°F in the winter to 140°F in the summer (this includes the 30°F for radiant heating from the sun.) The installation is to be made at a conduit temperature of 90°F. From the table, a 140°F temperature change will cause a 5.7 in. length change in 100 ft. of conduit. The total change for this example is 5.7" x 3.8 = 21.67" which should be rounded to 22". The number of expansion couplings will be 22" x coupling range (4" for Carlon trade sizes 1/2" through 1-1/2", and 8" for sizes 2" through 6".) If the E945D coupling is used, the number will be 22" x 4 = 5.50 which should be rounded to 6. The coupling should be placed at 62 ft. intervals (380 x 6). the proper piston setting at the time of installation is calculated as explained above.

$$O = \left[\frac{140 - 90}{140} \right] 4.0 = 1.4 \text{ in.}$$

Insert the piston into the barrel to the maximum depth. Place a mark on the piston at the end of the barrel. To properly set the piston, pull the piston out of the barrel to correspond to the 2.1 in. calculated above. See drawing at lower left.

Summary

1. Anticipate expansion and contraction of PVC conduit in aboveground, exposed installation.
2. Use an expansion coupling when length change due to temperature variation will exceed 1/2".
3. PVC conduit expands 4.1" for each 100 feet of run and a 100°F temperature change.
4. Align expansion coupling with the conduit run to prevent binding.
5. Follow the instructions to set the piston opening.
6. Rigidly fix the outer barrel of the expansion coupling so it cannot move. Mount the conduit connected to the piston loosely enough to allow the conduit to move as the temperature changes.

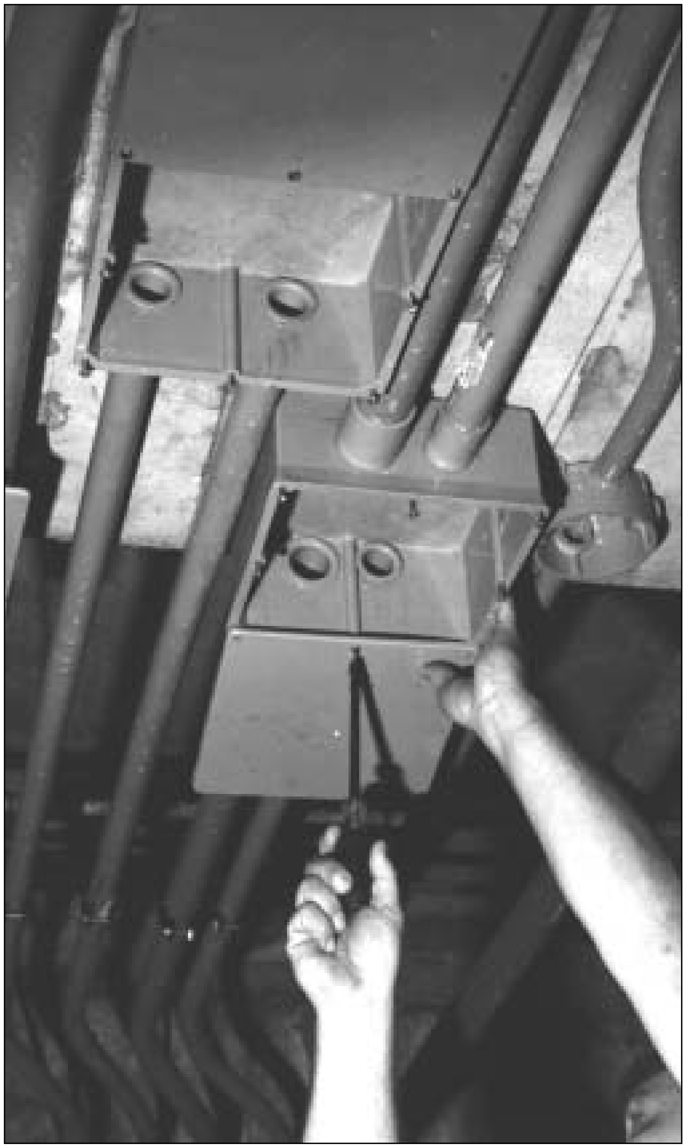
Corrosion Resistance of Carlon Schedule 40 and Schedule 80 PVC Conduit and Fittings

Carlon Schedule 40 and Schedule 80 are generally acceptable for use in environments containing the chemicals below. These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. Schedule 40 and Schedule 80 can be used in many process areas where chemicals not on this list are manufactured or used because worker safety requirements dictate that any air presence or splashing be at a very low level.

If there are any questions for specific suitability in a given environment, prototype samples should be tested under actual conditions.

Acetic Acid 0-20%
Acetic Acid 20-30%
Acetic Acid 30-60%
Acetic Acid 80%
Acetic Acid – Glacial
Acetic Acid Vapors
Acetylene
Adipic Acid
Alum
Aluminum Chloride
Aluminum Fluoride
Aluminum Hydroxide
Aluminum Oxychloride
Aluminum Nitrate
Aluminum Sulfate
Ammonia-Dry Gas
Ammonium Bifluoride
Ammonium Carbonate
Ammonium Chloride
Ammonium Hydroxide 28%
Ammonium Metaphosphate
Ammonium Nitrate
Ammonium Persulfate
Ammonium Phosphate – Neutral
Ammonium Sulfate
Ammonium Sulfide
Ammonium Thiocyanate
Amyl Alcohol
Anthraquinone
Anthraquinonesulfonic Acid
Antimony Trichloride
Aqua Regia
Arsenic Acid 80%
Arylsulfonic Acid
Barium Carbonate
Barium Chloride
Barium Hydroxide
Barium Sulfate
Barium Sulfide
Beet – Sugar Liquor
Benzine Sulfonic Acid 10%
Benzoic Acid
Bismuth Carbonate
Black Liquor (Paper Industry)
Bleach – 12.5% Active CL_2
Borax
Boric Acid
Brine
Breeder Pellets – Dane. Fish
Bromic Acid
Bromine – Water
Butane
Butadiene
Butyl Alcohol
Butyl Phenol
Butylene
Butyric Acid
Calcium Bisulfite
Calcium Carbonate
Calcium Chlorate
Calcium Chloride
Calcium Hydroxide
Calcium Hypochlorite
Calcium Nitrate
Calcium Sulfate
Carbonic Acid
Carbon Dioxide Gas – Wet
Carbon Dioxide – Aqueous Solution
Carbon Monoxide
Caustic Potash
Caustic Soda
Chloracatic Acid
Chloral Hydrate
Chlorine Gas (Dry)
Chlorine Gas (Moist)
Chlorine Water
Chlorosulfonic Acid
Chrome Alum
Chromic Acid 10%
Chromic Acid 30%
Chromic Acid 40%
Chromic Acid 50%
Citric Acid
Copper Chloride
Copper Cyanide
Copper Fluoride
Copper Nitrate
Copper Sulfate
Cottonseed Oil
Cresylic Acid 50%
Crude Oil – Sour
Crude Oil – Sweet
Demineralized Water
Dextrin
Dextrose
Diglycolic Acid
Disodium Phosphate
Ethyl Alcohol
Ethylene Glycol
Fatty Acids
Ferric Chloride
Ferric Nitrate
Ferric Sulfate
Ferrous Chloride
Ferrous Sulfate
Fluorine Gas – Wet
Fluorine Gas – Dry
Fluoroboric Acid
Fluorosilicic Acid
Formaldehyde
Formic Acid
Fructose
Gallic Acid
Gas – Coke Oven
Gas – Natural (Dry)
Gas – Natural (Wet)
Gasoline – Sour
Gasoline – Refined
Glucose
Glycerine (Glycerol)
Glycol
Glycolic Acid
Green Liquor (Paper Industry)
Heptane
Hexanol, Tertiary
Hydrobromic Acid 20%
Hydrochloric Acid 0% - 25%
Hydrochloric Acid 25% - 40%
Hydrocyanic Acid or Hydrogen Cyanide
Hydrofluoric Acid 10%
Hydrofluorosilicic Acid
Hydrogen Phosphide
Hydrogen Sulfide – Dry
Hydrogen Sulfide – Aqueous Solution
Hydroquinone
Hydroxylamine Sulfate
Iodine
Kerosene
Lactic Acid 28%
Lauric Acid
Lauryl Chloride
Lauryl Sulfate
Lead Acetate
Lime Sulfur
Linoleic Acid
Linseed Oil
Lubricating Oils
Magnesium Carbonate
Magnesium Chloride
Magnesium Hydroxide
Magnesium Nitrate
Magnesium Sulfate
Maleic Acid
Malic Acid
Mercuric Chloride
Mercuric Cyanide
Mercurous Nitrate
Mercury
Methyl Sulfate
Methylene Chloride
Mineral Oils
Naphthalene
Nickel Chloride
Nickel Nitrate
Nitric Acid, Anydrous
Nitric Acid 20%
Nitric Acid 40%
Nitric Acid 60%
Nitrobenzene
Nitrous Oxide
Oils and Fats
Oils – Petroleum – (See Type)
Oleic Acid
Oxalic Acid
Palmitic Acid 10%
Perchloric Acid 10%
Phenylhydrazine Hydrochloride
Phosgene, Gas
Phosphoric Acid – 0-25%
Phosphoric Acid – 25-50%
Phosphoric Acid – 50-85%
Photographic Chemicals
Plating Solutions
Potassium Bicarbonate
Potassium Bichromate
Potassium Borate
Potassium Bromide
Potassium Carbonate
Potassium Chloride
Potassium Chromate
Potassium Cyanide
Potassium Dichromate
Potassium Ferricyanide
Potassium Ferrocyanide
Potassium Fluoride
Potassium Hydroxide
Potassium Nitrate
Potassium Perborate
Potassium Perchlorite
Potassium Permanganate 10%
Potassium Persulfate
Potassium Sulfate
Propane
Propyl Alcohol
Silicic Acid
Silver Cyanide
Silver Nitrate
Silver Plating Solutions
Sodium Acetate
Sodium Arsenite
Sodium Benzoate
Sodium Bicarbonate
Sodium Bisulfate
Sodium Bisulfite
Sodium Bromide
Sodium Chlorate
Sodium Chloride
Sodium Cyanide
Sodium Dichromate
Sodium Ferricyanide
Sodium Ferrocyanide
Sodium Fluoride
Sodium Hydroxide
Sodium Hypochlorite
Sodium Nitrate
Sodium Nitrite
Sodium Sulfate
Sodium Sulfide
Sodium Sulfite
Sodium Thiosulfate (Hypo)
Stannic Chloride
Stannous Chloride
Stearic Acid
Sulfur
Sulfur Dioxide – Gas Dry
Sulfur Trioxide
Sulfuric Acid – 0-10%
Sulfuric Acid – 10-75%
Sulfuric Acid – 75-90%
Sulfurous Acid
Tannic Acid
Tanning Liquors
Tartaric Acid
Titanium Tetrachloride
Triethanolamine
Trimethyl Propane
Trisodium Phosphate
Turpentine
Urea
Vinegar
Whiskey
White Liquor (Paper Industry)
Wines
Zinc Chloride
Zinc Chromate
Zinc Cyanide
Zinc Nitrate
Zinc Sulfate

Suggested Format for Specifying Carlon Nonmetallic Conduit, Conduit Fittings and Junction Boxes



A. The Carlon rigid nonmetallic conduit system shall be installed as indicated on the drawings and as specified herein.

B. All wiring shall be installed in Carlon rigid nonmetallic conduit. All conduit shall be secured by means of proper fittings. All fittings shall be Carlon.

C. Carlon outlet boxes, fittings and junction boxes shall be used for all outlets, pull boxes and junction points. (Lighting fixtures shall not be supported or hung from PVC junction boxes but be supported in position by other means.)

D. Exposed conduits shall be mounted securely by suitable hangers or straps with the maximum spacing of points of supports not greater than indicated by Section 352.30 of the NEC.

E. Except where embedded in concrete or direct buried, Carlon conduit shall be supported to permit adequate lineal movement to allow for expansion and contraction of conduit due to temperature change.

F. For aboveground installations where temperature change in excess of 14°C (25°F) is anticipated, expansion joints shall be installed. See Table 352.44(A) NEC for expansion characteristics.

G. Proper care shall be taken when field bending is employed to maintain the internal diameter and wall thickness of the conduit.