

RIGID NONMETALLIC CONDUIT, FITTINGS & ACCESSORIES

Schedule 40 and Schedule 80 conduit is designed for use above ground and underground as described in the National Electrical Code.

FEATURES

Ease of Installation

Nonmetallic conduit is 1/4 to 1/5 the weight of metallic systems, can be installed in less than half the time, and are easily fabricated on the job.

Safety

Nonmetallic conduit is non-conductive, assuring a safe system.

Impact Resistant

Schedule 40 and Schedule 80 nonmetallic conduit is resistant to sunlight and is listed for exposed or outdoor usage. The use of expansion fittings allows the system to expand and contract with temperature variations.

Corrosion Resistant

Conduits and fittings are nonmetallic and will not rust or corrode.

Nonmetallic Schedule 40 and Schedule 80 conduit and elbows are manufactured to NEMA TC-2, Federal specification WC1094A and UL 651 specifications. Fittings are manufactured to NEMA TC-3, Federal specification WC1094A and UL514B. Both conduit and fittings carry perspective UL or ETL Listings and UL or ETL labels.

SCHEDULE 40 PVC RIGID NONMETALLIC CONDUIT

HEAVY WALL EPC

Listed for underground applications encased in concrete or direct burial. Also for use in exposed or concealed applications above ground.

- Sunlight resistant
- Rated for use with 90°C conductors
- Superior weathering characteristics



RUS Listed

SCHEDULE 40 HEAVY WALL

Nom. Size	Std. Crate Qty.		Wt. Per 100'	Dimensions		Wall
	10'	20'		O.D.	I.D.	
1/2"	6000'	12000'	17	.840	.622	.109
3/4"	4400'	8800'	23	1.050	.824	.113
1"	3600'	7200'	34	1.315	1.049	.133
1-1/4"	3300'	6600'	46	1.660	1.380	.140
1-1/2"	2250'	4500'	55	1.900	1.610	.145
2"	1400'	2800'	73	2.375	2.067	.154
2-1/2"	930'	1860'	124	2.875	2.469	.203
3"	880'	1760'	163	3.500	3.068	.216
3-1/2"	630'	1260'	196	4.000	3.548	.226
4"	570'	1140'	232	4.500	4.026	.237
5"	380'	760'	315	5.563	5.047	.258
6"	260'	520'	409	6.625	6.065	.280

Rigid nonmetallic conduit is normally supplied in standard 10' or 20' lengths, with one belled end per length. It may be produced without belled ends.

Notes:

1. Special fittings and conduit sizes will be quoted on request.
2. Don't Forget To Order Cement.
3. Vikimatic reserves the right to ship to the nearest unitized quantity.

Use PVC Fittings with Schedule 40 and Schedule 80 Conduit.

Part Number Ordering Matrix Begins On Page 90

PVC CONDUIT

SCHEDULE 80 PVC RIGID NONMETALLIC CONDUIT

(EXTRA HEAVY WALL EPC-80)

Listed for use in above ground and below ground applications that are subject to physical damage.

- Sunlight resistant
- Rated for use with 90°C conductors
- Superior weathering characteristics
- For use in areas subject to physical damage



ETL Listed to UL 651 in compliance to the NEC



Listed E35297

RUS Listed

SCHEDULE 80 EXTRA HEAVY WALL

Nom. Size	Std. Crate Qty.		Wt. Per 100'	Dimensions		
	10'	20'		O.D.	I.D.	Wall
1/2"	6000'	12000'	21	.840	.546	.147
3/4"	4400'	8800'	30	1.050	.742	.154
1"	3600'	7200'	44	1.315	.957	.179
1-1/4"	3300'	6600'	60	1.660	1.278	.191
1-1/2"	2250'	3600'	72	1.900	1.500	.200
2"	1400'	2800'	101	2.375	1.939	.218
2-1/2"	930'	1880'	154	2.875	2.323	.276
3"	880'	1760'	210	3.500	2.900	.300
4"	570'	1140'	308	4.500	3.826	.337
5"	380'	760'	428	5.563	4.813	.375
6"	260'	520'	588	6.625	5.761	.432

Rigid nonmetallic conduit is normally supplied in standard 10' or 20' lengths, with one belled end per length. It may be produced without belled ends.

Notes:

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Use PVC Fittings with Schedule 40 and Schedule 80 Conduit.



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POWER & COMMUNICATIONS DUCT

Power & Communications Duct and fittings are designed and formulated specifically for concrete encased and direct burial applications of power utility primaries, secondaries, street lighting and distribution systems. Power & Communications Duct complies with NEMA Standard TC-6 & 8, and ASTM F-512 for utility duct. Both EB and DB duct are rated for use with 90°C conductors. Power & Communications Duct fittings comply with NEMA TC-9 Standard.

The Telephone Duct complies with NEMA TC-10, Bellcore CAO 8546, GT8343, and other applicable telephone standards.

ADVANTAGES:

- High impact strength
- Excellent structural strength
- Superior load bearing
- Multiple duct banks can be pre-assembled and lowered into trench
- No special cutting or tapering devices required
- Provides easy bending around obstructions minimizing the need for special angle couplings and sweeps
- Superior aging and weathering characteristics

FEATURES:

- Heat resistant
- Fire resistant
- Conforms to NEMA Standard TC-6 & 8 and ASTM Standard F-512 for utility duct
- Duct Type EB-20 is ETL Listed
- Low coefficient of expansion
- Continuous rigid control
- Smooth inner wall and smooth transition between joints



ENGINEERING FEATURES:

Chemical Inertness resists water absorption and is totally immune to galvanic or electrolytic attacks.

Solvent Cemented Joints provide leakproof duct runs tested at 25 psi. This type of joint eliminates the need for costly mechanical rodding procedure. Power & Communications Duct can be rodded pneumatically.

fact

VIKIMATIC STOCKS CONDUIT AND ANCILLARY PRODUCTS ALL OVER THE UNITED STATES.

Part Number Ordering Matrix Begins On Page 90

PVC CONDUIT

PVC CONDUIT

POWER & COMMUNICATIONS DUCT TYPE EB

Nonmetallic Power & Communications Duct Type EB is manufactured from an exclusive high modulus C-600 compound, developed especially for power and communications applications, and is designed for use in concrete encased installations. Type EB is rated for 90°C cable.



ETL Listed to UL 651 in compliance to the NEC

POWER & COMMUNICATIONS DUCT TYPE EB-20

Meets NEMA Standard TC-6 & 8 EB-20/ASTM F-512

Nom. Size	Std. Crate Qty.		Approx. Wt. Per 100'	O.D.	*Min Wall
	10'	20'			
2	-	2,800	36	2.375	.060
3	-	2,000	59	3.500	.061
4	570	1,140	98	4.500	.082
5	380	760	148	5.563	.103
6	260	520	212	6.625	.125

*Min. wall thickness relates to 500,000 modulus.

Note: One belled end per piece of conduit.

POWER & COMMUNICATION DUCT TYPE EB-35 HEAVY WALL

Meets NEMA Standard TC-6 & 8 EB-35/ASTM F-512

Nom. Size	Std. Crate Qty.		Approx. Wt. Per 100'	O.D.	*Min Wall
	10'	20'			
2	-	2,800	39	2.375	.060
3	-	2,000	72	3.500	.076
4	-	1,140	116	4.500	.100
5	380	760	177	5.563	.126
6**	-	520	251	6.625	.152

*Min. wall thickness relates to 500,000 modulus.

**Special order item.

Note: One belled end per piece of conduit.

USE DB SWEEPS WITH EB DUCT.

don't forget

To order cement!

Cement can be order in pints, quarts or gallons. Ask your Vikimatic representative for complete details.



Part Number Ordering Matrix Begins On Page 90

POWER & COMMUNICATIONS DUCT TYPE DB

Nonmetallic Power & Communication Duct Type DB is manufactured from an high modulus C-600 compound, developed especially for power and communications applications, and is designed for use in direct burial or concrete encased installations. Type DB is rated for 90°C cable.

RUS Listed

TRENCHING:

Trench should be graded true and free from stones and soft spots. Backfill should also be free of stones and be firmly tamped around the sides of the conduit, to develop maximum supporting strength. Tamping on top of the conduit is not recommended.

BACKFILL:

In rocky soil where it is impossible to have an even trench bottom, a selected backfill should be put in before laying the conduit. Selected backfill (not tamped) at least 6" over the top of the conduit is recommended. After final backfill is placed, tamping may be used to finish the grade.

The method of direct burial varies with soil condition, load conditions, and engineering preferences. A common practice is to lay one tier at a time, backfill, and repeat with the desired spacing of ducts being made as ducts are layered.

Many companies have used the heavier wall Type DB-120 in a duct-to-duct formation. Where limited loads occur, this type of installation has proven satisfactory.

POWER & COMMUNICATION DUCT TYPE DB-60

Meets NEMA Standard TC-6 & 8 DB-60/ASTM F-512

Nom. Size	Std. Crate Qty.	Approx. Wt. Per 100'	O.D.	*Min Wall
2	2,800	38	2.375	.060
3	2,000	81	3.500	.092
3-1/2	2,000	108	4.000	.107
4	1,140	133	4.500	.121
5	760	202	5.563	.152
6	520	288	6.625	.182

*Min. wall thickness relates to 500,000 modulus
 Note: One belled end per piece of conduit.

POWER & COMMUNICATION DUCT TYPE DB-120 HEAVY WALL

Meets NEMA Standard TC-6 & 8 DB-120/ASTM F-512

Nom. Size	Std. Crate Qty.		Approx. Wt. Per 100'	O.D.	*Min Wall
	10'	20'			
1	–	8,000	18	1.315	.060
1-1/2	–	4,500	28	1.900	.060
2	–	2,800	47	2.375	.077
3	–	2,000	99	3.500	.118
4	–	1,140	165	4.500	.154
5	–	760	251	5.563	.191
6	260	520	356	6.625	.227

*Min. wall thickness relates to 500,000 modulus
 Note: One belled end per piece of conduit.

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PVC CONDUIT

PVC CONDUIT

SPECIAL CALIFORNIA RIGID NONMETALLIC DB-100 POWER & COMMUNICATION DUCT & SWEEPS

DB-100 nonmetallic Power & Communication Duct Type DB is manufactured to NEMA Standard TC-6 & 8 and to specifications that exist within the State of California, and is designed for use in direct burial or concrete encased installations. Rated for use with 90°C cable.

POWER & COMMUNICATION DUCT TYPE DB-100

Meets NEMA Standard TC-6 & 8 and ASTM F-512

Nom. Size	Std. Crate Qty.	Approx. Wt. Per 100'	O.D.	*Min Wall
4	1,140	154	4.500	.155
5	760	237	5.563	.192
6	520	337	6.625	.229

*Min. wall thickness relates to 500,000 modulus

Note: One belled end per piece of conduit.

POWER & COMMUNICATION DUCT TYPE DB-100 DWP APPROVED

Meets NEMA Standard TC-6 & 8 and ASTM F-512

Nom. Size	Std. Crate Qty.	Approx. Wt. Per 100'	O.D.	*Min Wall
3	2,000	95	4.500	.155
4	1,140	156	5.563	.192
5	760	237	6.625	.229

*Min. wall thickness relates to 500,000 modulus



**Part Number Ordering Matrix
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PHYSICAL PROPERTIES OF POWER & COMMUNICATIONS DUCT BY ASTM TEST METHODS

Property	ASTM No.	Typical Values	
		P&C Duct	Telephone Duct
Tensile strength, psi	D638	4,800	4,800
Modulus of elasticity in tension, psi	D638	500,000	500,000
Flexural strength, psi	D790	11,000	11,000
Deflection temp under load at 265 psi °C	D648	72°C	72°C
Coefficient of thermal expansion in/in/°F	D696	3.30 x 10 ⁻⁵	3.30 x 10 ⁻⁵
Coefficient of static friction		.20	.20

COLLAPSE PRESSURE OF P&C DUCT MATERIALS (PSI)

2" EB-20	- 11.2	5" EB-20	- 5.9
2" EB-35	- 11.2	5" EB-35	- 10.3
2" DB-60	- 11.2	5" DB-60	- 18.9
2" DB-120	- 26.6	5" DB-120	- 38.2
3" EB-20	- 6.6	6" EB-20	- 6.1
3" EB-35	- 8.2	6" EB-35	- 11.2
3" DB-60	- 15.2	6" DB-60	- 19.6
3" DB-120	- 34.0	6" DB-120	- 38.0
4" EB-20	- 6.7		
4" EB-35	- 9.2		
4" DB-60	- 17.0		
4" DB-120	- 36.6		

COLLAPSE PRESSURE OF TELEPHONE DUCT MATERIALS (PSI)

Type B Duct	- 9.2
Type C Duct	- 36.6
Type D Duct	- 36.6

PERFORMANCE PROPERTIES OF P&C DUCT AS INDICATED PER NEMA STANDARD TC-6 & 8 AND ASTM F-512

Pipe Stiffness lb/in/in

Conduit Series	Minimum Pipe Stiffness (F/Δy), all sizes
EB-20	20
EB-35	35
DB-60	60
DB-100	100
DB-120	120

Minimum Impact Resistance at 0°C (32°F) ft • lbf

Nominal Size	Conduit Series				
	EB-20	EB-35	DB-60	DB-100	DB-120
1	-	-	-	-	10
1-1/2	-	-	10	-	15
2	20	20	20	-	25
3	20	30	40	45	50
3-1/2	20	35	50	60	65
4	25	40	60	70	80
5	30	55	85	100	110
6	40	75	120	135	150

PERFORMANCE PROPERTIES OF TELEPHONE DUCT AS INDICATED PER NEMA STANDARD TC-10

Pipe Stiffness F/Δy lb/in/in

Nominal Size	B-Duct	HWB	C-Duct	D-Duct
All	30	40	120	120

Minimum Impact Resistance at 32°C

B-Duct ft. lb.	C-Duct ft. lb.	D-Duct ft. lb.
25	50	50

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