

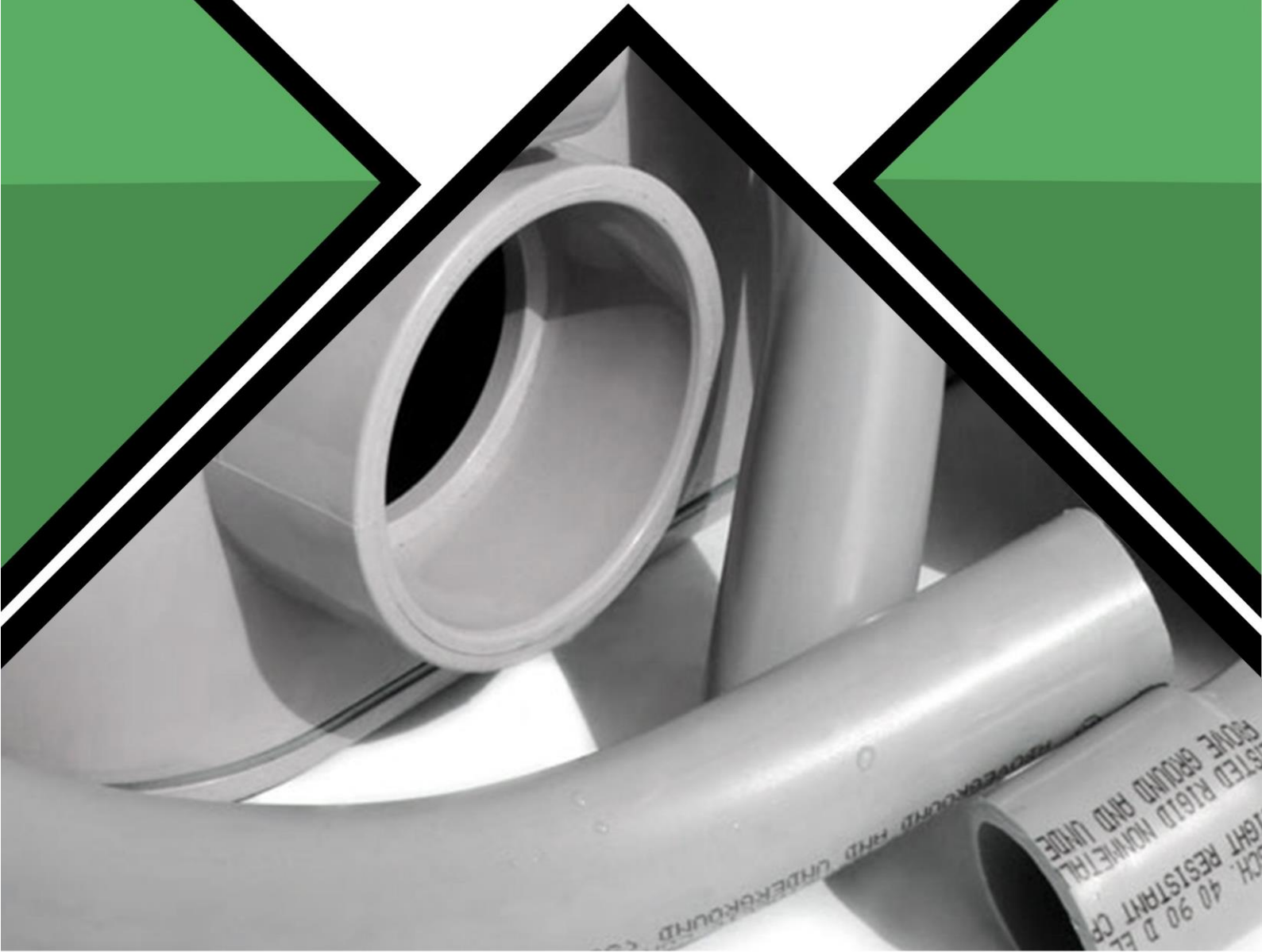


ROYAL PVC Co.LTD

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SECTION 02

Royal PVC Electrical Conduit Pipe







ROYAL PVC ELECTRICAL CONDUIT PIPE

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Standards, Range, Applications & Advantages .

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Dimensions & Weights

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Electrical Conduit Pipe Specification as per BSS & PSI .





STANDARDS:

- ANSI/UL 651 (American National Standard Institute)
- BSS 6099
- PSI 1905

RANGE:

Nominal Diameter:

- From 3/4" to 6"

APPLICATIONS

1. Royal PVC Electrical Conduit pipe can safely be used in electrical conduits and cable ducting.

ADVANTAGES OF ROYAL PVC ELECTRICAL CONDUIT PIPE

ADVANTAGES OF USING ROYAL ELECTRICAL CONDUIT

- LIGHT WEIGHTS: Royal PVC Conduit is one-third the weight of steel galvanized conduit
- EASY TO CUT: Royal conduit cuts clean and no sharp edges.
- EASY TO BEND: Royal conduit pipe is flexible enough to be bent into the desired shape; small sized be bent cold.
- NON-COMBUSTIBLE: Royal conduit pipe will not support flames it is self extinguishing.
- NO THREADING NEEDED: Royal conduit can be joined with coupling, clean or solvent welded.
- ATTRACTIVE: Royal conduit pipe does not require painting; it's neat appearance complements any décor, but can be painted desired.
- LOW WASTAGE: Royal conduit pipe in short lengths can be easily adapted and put to use.
- WEATHER RESISTANT: Extreme weather, sea blast and many chemicals do not affect Royal conduit.
- HALOGEN FREE: Royal conduit pipe is free from fire.

ANSI/UL 651 DIMENSIONS AND WEIGHTS

SUBMITTAL AND DATA SHEET

SCHEDULE 40 AND SCHEDULE 80 CONDUIT NEMA TC-2 AND ANSI/UL 651 RIGID NON-METALLIC CONDUIT FOR USE IN BOTH ABOVE GROUND AND UNDERGROUND INSTALLATIONS.

SCHEDULE 40 CONDUIT Rated for 90°C Conductors Schedule 40 is furnished in standard 13" lengths with one bell end.

20" lengths are available upon request.

SIZE Inch	AVERAGE O.D.mm	NOM. I.D.mm	MIN. T.mm	APPROX. WT/13 FT
3/4	26.67	20.92	02.87	1.41
1	33.40	26.64	03.37	1.95
1 ¼	42.16	35.05	03.55	2.65
1 ½	48.26	40.89	03.68	3.30
2	60.32	52.50	03.91	4.49
3	88.90	77.92	05.48	9.63
3 ½	101.60	90.11	05.74	11.64
4	114.30	102.26	06.00	13.82
5	141.30	128.19	06.55	18.85
6	168.27	154.00	07.11	24.28

SCHEDULE 80 CONDUIT Rated for 90°C Conductors Schedule 80 is furnished in standard 13" lengths with one bell.

SIZE Inch	AVERAGE O.D.mm	NOM. I.D.mm	MIN. T.mm	APPROX. WT/13 FT
3/4	26.67	18.84	03.91	1.77
1	33.40	24.30	04.54	2.48
1 ¼	42.16	32.46	04.85	3.54
1 ½	48.26	38.10	05.08	4.25
2	60.32	49.25	05.53	5.79
3	88.90	73.66	07.62	12.58
4	114.30	97.18	08.55	18.31
5	141.30	122.25	09.52	25.40
6	168.27	146.32	10.97	

20" lengths are available upon request.



SUBMITTAL AND DATASHEET

POWER AND COMMUNICATION DUCT FOR CONCRETE ENCASEMENT

TC-6 & 8 TYPE EB20* : : Rated for 90° C Cable

SIZE Inch	AVERAGE O.D mm	NOM. I.D mm	*MIN. T mm	APPROX.WTkg/13FT
2	60.32	57.27	1.52	2.127
3	88.9	85.80	1.55	3.309
4	114.3	109.98	2.08	5.377
5	141.30	136.06	2.61	8.331
6	168.27	161.79	3.17	11.7

TC-6 & 8 TYPE EB35* : : Rated for 90° C Cable

SIZE Inch	AVERAGE O.D mm	NOM. I.D mm	*MIN. T mm	APPROX.WTkg/13FT
3	88.9	85.03	1.93	4.018
4	114.3	109.22	2.54	6.440
5	141.30	134.899	3.200	9.92
6	168.27	160.55	3.860	13.886

Based on 500,000 psi Modulus West Coast Only

: : Conduit furnished with one (1) bell end per 13" length.

: : JM Eagle™ Type EB duct is designed for concrete encasement installation and complies with NEMA TC-6 & 8, ASTM F512 and/or ANSI/UL 651 A.

I.D.: Inside Diameter O.D.: Outside Diameter T.: Wall Thickness

SUBMITTAL AND DATA SHEET

POWER AND COMMUNICATION DUCT FOR DIRECT BURIAL

TC-6 & 8 TYPE DB60: : Rated for 90° C Cable

SIZE Inch	AVERAGE O.D mm	NOM. I.D mm	*MIN. T mm	APPROX.WTkg/13FT
2	60.325	57.277	1.524	2.127
3	88.9	84.226	2.336	4.668
4	114.3	108.153	3.073	7.622
5	141.300	133.578	3.860	11.640
6	168.275	159.029	4.622	16.486

Based on 500,000 psi Modulus

TC-6 & 8 TYPE DB100 : :

SIZE Inch	AVERAGE O.D mm	NOM. I.D mm	*MIN. T mm	APPROX.WTkg/13FT
3	88.9	83.210	2.844	5.377
4	114.30	106.98	3.683	8.981
5	141.300	132.257	4.546	13.65
6	168.275	157.505	5.41	19.381

TC-6 & 8 TYPE DB 128 : :

Rated for 90° C Cable

SIZE Inch	AVERAGE O.D mm	NOM. I.D mm	*MIN. T mm	APPROX.WTkg/13FT
1	33.401	30.353	1.524	1.181
1-1/2	48.260	45.212	1.524	1.713
2	60.325	56.41	1.955	2.6
3	88.900	82.90	2.997	5.731
4	114.30	106.476	3.911	9.454
5	141.300	131.597	4.851	14.477
6	168.275	156.743	5.765	20.504

Based on 500,000 psi Modulus

: : Conduit furnished with one (1)bell end per 13" length.

: : JM Eagle™ Type DB Duct is designed for direct burial installations and complies with NEMA TC-6 & 8 and ASTM F512

SCOPE

This specification designates general requirements for 5" 6" diameter polyvinyl chloride (PVC) Electrical Conduit and Power Duct Pipe for the Conveyance of Electrical wires in above/below ground and/or in- door applications.

Royal offers a complete line of Electrical Conduit and Power Duct Pipe products which include;

Schedule 40 and 80 Conduit (NEMA TC-2, ANSI/UL651), Encased and Direct Burial Conduit (ASTM F512, NEMA TC-6 & 8 and/or ANSI/UL 651A), and Type C Telephone Duct. All Royal Electrical Conduit and Power Duct pipe products are offered in 4 meters laying.

Royal Rigid PVC Electrical Plastic Tubing (EPT) & Conduit (EPC-40 and EPC-80)

Nominal Pipe Size	Outside Dia	EPT-A-PVC		EPT-40-PVC		EPT-80-PVC	
		W/Thick	N.Weight	W/Thick	N.Weight	W/Thick	N.Weight
INCH	MM	MM	KGS/M	MM	KGS/M	MM	KGS/M
1/2"	21.34	1.52	0.155	2.77	0.248	3.73	0.309
3/4"	26.67	1.52	0.197	2.87	0.329	3.91	0.418
1"	33.4	1.52	0.250	3.38	0.483	4.55	0.614
1-1/4"	42.16	1.78	0.365	3.56	0.652	4.85	0.850
1-1/2"	48.26	2.03	0.468	3.68	0.779	5.08	1.030
2"	60.32	2.54	0.717	3.91	1.04	5.54	1.430
2-1/2"	73.02	2.79	0.952	5.16	1.65	7.01	2.180
3"	88.9	3.18	1.310	5.49	2.160	7.62	2.900
4"	114.30	3.81	2.000	6.02	3.070	8.56	4.260
5"	141.30	----	----	6.55	4.17	9.52	5.910
6"	168.28	----	----	7.11	5.410	10.97	8.130
8"	219.08	----	----	8.18	8.143	12.70	12.40

Royal Rigid PVC Utilities Duct for Underground Installation NEMA TC-6 and ASTM F512 Dimension

Nominal Pipe Size	Outside Dia	PVC Type EB 20		PVC Type DB 60	
		W/Thick	N.Weight	W/Thick	N.Weigh
INCH	MM	MM	KGS/M	MM	KGS/M
2"	60.32	1.52	0.463	1.52	0.465
3"	88.9	1.55	0.702	2.34	1.000
4"	114.30	2.08	1.170	3.07	1.650
5"	141.30	2.62	1.710	3.86	2.500
6"	168.28	3.18	2.530	4.62	3.570

Support of Royal PVC Conduit in Above Ground Installations

Size	Maximum Space Between Supports (ft)
1-1/4"	5
2-1/2-3"	6
3-1/2-5"	7
6"	8

Royal PVC Electrical Fittings

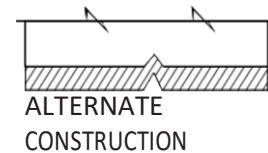
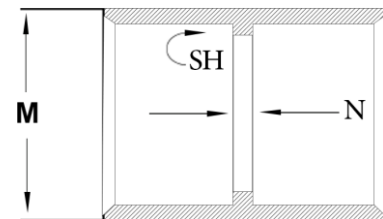
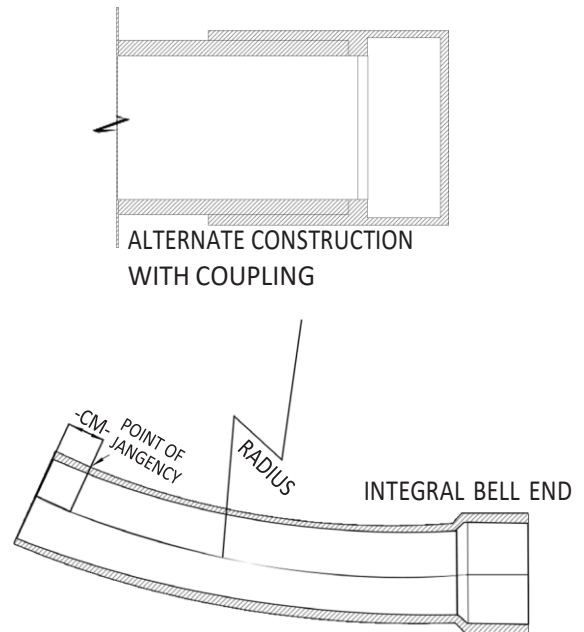
Applicable standards

ASTM F 512 NEMA TC 3 & TC 9

Sch 40, Sch 80

Coupling Dimension, in.

Nominal Size	M, Max	SH, max	N, Min
1"	113/64	0.070	1/16
1-1/2"	29/32	0.070	1/16
2"	247/64	0.075	3/32
3"	331/32	0.076	7/64
4 1/2"	51/32	0.097	1/16
6"	71/2	0.140	9/64



Sch 40, Sch 80

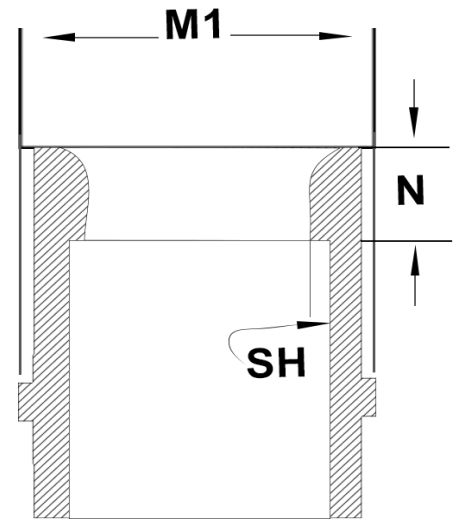
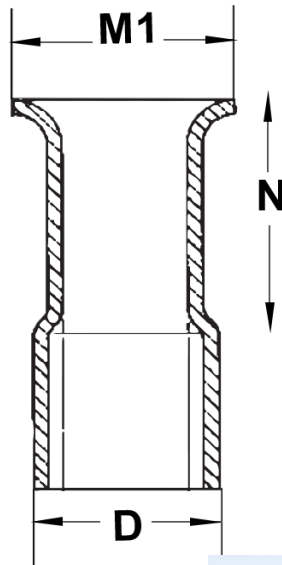
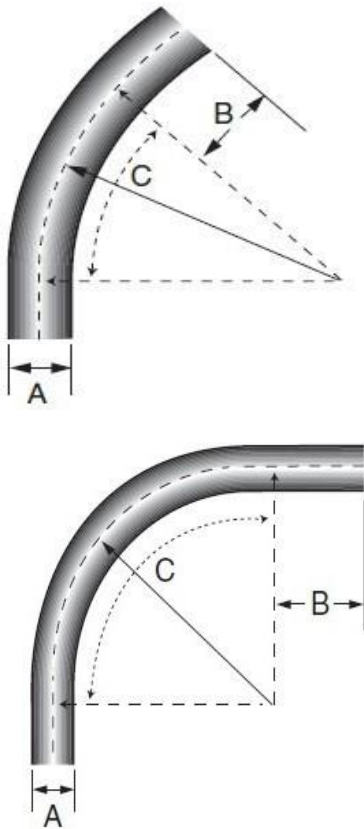
Minimum Dimension for Bends and Sweeps

Radii, Degree of Curvature, and Straight Tangent Lengths at Ends of Bends and Sweeps					
Nominal Size	5° Bend	Radius, in. 22½ and 30° Bend	Radius, in. 45 and 90° Bend	Radius, ft 2½, 30, 45, and 90° Sweep	CM, min, in
2"	48	18,24,36,48,60	18,24,36,48,60	12½	2¼
3"	48	18,24,36,48,60	18,24,36,48,60	12½	3¾
4"	48	18,24,36,48,60	18,24,36,48,60	12½	37/8
6"	48	48,60	48,60	12½	5½

Note:

Sweeps Longer Than 10ft May be supplied in two sections to facilitate shipping and storage.

Nominal Size	M1 , max	N, min	D, min
2"	4 9/32	2 25/32	2.173
3"	5 9/32	2 5/16	3.208
4"	5 1/2	3	4.129
6"	4 1/2	3 1/4	6.192



Socket End Bell Dimensions, in. Sch 40

Nominal Size	M1 , max	SH, max	N, min
1"	2 1/4	0.070	3/16
1 1/2 "	2 1/2	0.70	3/16
2"	3 7/64	0.075	5/16
3"	4 1/8	0.076	5/16
4"	5 11/32	0.097	7/16
6"	7 13/32	0.140	7/16





BSS 6099 & PSI 1905

ROYAL PVC ELECTRICAL CONDUIT PIPE BSS 6099& PSI 1905

NOMINAL SIZE	Outside Diameter		Wall Thickness		Weight KG/MTR	
Inch	Min	Max	Min	Max	Min	Max
1/2	17.0	17.3	0.96	1.16	0.070	0.084
3/4	21.1	21.5	1.09	1.29	0.098	0.117
1	26.6	26.9	1.16	1.36	0.133	0.156
1-1/4	33.4	33.7	1.44	1.67	0.207	0.241
1-1/2	42.1	42.4	1.60	1.84	0.292	0.335
2	60.2	60.5	1.70	1.90	0.447	0.500
3	88.7	89.1	1.80	2.00	0.680	0.700
4	114.1	114.5	1.90	2.10	0.940	0.960

Electric Conduit Pipes are available in 1 / 2 " , 3 / 4 " , 1 " , 1 - 1 / 4 " , 1 - 1 / 2 " , 2 " , 3 " , 4 " Diameter and 3 meter

DI ELECTRICAL CONSTANT: TEST CYCLE : 50/S	501-525
DI ELECTRICAL POWER FACTOR: TEST CYCLES :50C/S SHOERING-BRIDGE METHOD	0.1-0.146
SPECIFIC(VOLUME)RESISTANCE ELECTRICAL INSULATION RESISTANCE A 1 DC 1000 VOLT	1.27X10 ¹³ Ω-CM
CRITICAL SUPPORTED VOLTAGE AC50C/S 11KV ONE MINUTE	NO CHANGE



+93 (0) 786 500 436 +93 (0) 777 09 56 85
+93 (0) 786 292 901 +93 (0) 785 64 62 32
+93 (0) 788 288 244 +93 (0) 700 28 82 44



info@royalpvc.af
royal_pvcaf@yahoo.com



www.royalpvc.af



Main Office Address: 2nd Floor, Haroon Market, Between Haji Yaqoub & Ansari Square, Share-e Naw, Kabul, Afghanistan

Factory Address: Near to Hussain khil High School, Distric# 12, Naw Abad, Bagrami, Kabul, Afghanistan.

COMPANY PROFILE & THCHNICAL MANUAL

- Royal PVC Pressure Pipe
- Royal PVC Electrical Conduit
- Royal PVC Sewerage Pipe
- Royal PVC Fittings
- Royal HDPE Pipe
- Royal PPRC Pipe & Fittings