

## STANDARD

# SMOOTHWALL

- Manufactured from flexible HDPE, makes gradual bends without special equipment
- Continuous lengths reduce joining costs
- Excellent low temperature properties, allows installation in cold climates
- Outstanding long term cable protection from shifting ground, rock and root impingement
- Provides a permanent pathway, simplifies future cable repairs or replacement

### INSTALLATION TYPES

Aerial  
Subdivided Conduit  
Plow  
Trench  
Directional Bore  
Tray  
Direct Burial

### SIZE RANGE AVAILABLE

1/2"	2"	6"
3/4"	2 1/2"	8"
1"	3"	10"
1 1/4"	4"	12"
1 1/2"	5"	

### WALL TYPES

SDR 9	SCH 40
SDR 11	SCH 80
SDR 13.5	SIDR 9
SDR 15.5	SIDR 11
SDR 17	

### STANDARD COLORS



or custom colors with optional stripes



## FEATURES

### STANDARD

**MATERIAL** Manufactured from flexible HDPE (High Density Polyethylene)

**SPECIFICATIONS** All Smoothwall conduit dimensions meet or exceed one or more of the following: ASTM F-2160, ASTM D-3350, ASTM D-3485, NEMA TC-7, UL 651A, UL 1990, Bellcore GR-356

**CONDUIT MARKINGS** Permanent marking along conduit includes: material, relevant standards, production info, and sequential feet or meter markings. Custom options available.

### OPTIONS

**CO-EXTRUDED LINING** SILICORE® ULF (Ultra-Low Friction) is co-extruded inside the HDPE wall creating a slick, permanent, interior lining. With a coefficient of friction 60% lower than standard HDPE conduit without the aid of wet lubricants, SILICORE® ULF exhibits no loss in performance over time or in extreme temperature conditions.

**PRE-INSTALLED TAPE** Factory pre-installed Bull-Line™ Pull Tape with EVEN-LOAD™ ensures extra slack at any access point throughout the reel. Available 500lb–6,000lb tensile strength or locatable.

**PRE-INSTALLED CABLE** Cable can be factory pre-installed in conduit

**UV PROTECTANT** Available for UV exposure applications (Aerial, Lashed, or External Tray)



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**SMOOTHWALL (SDR/SCH) TECHNICAL SPECIFICATIONS** (additional sizes next pages)

	WALL TYPE	NOM OD (IN)	OD TOLERANCE +/-	MIN WALL (IN)	WALL TOLERANCE +	AVG ID (IN)	MIN ID (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP (IN)	BEND RADIUS UNSUP (IN)	SWPS (LB)
1/2"	SDR 9	0.840	0.004	0.093	0.020	0.634	0.614	0.098	8	16	525
	SDR 11	0.840	0.004	0.076	0.020	0.668	0.648	0.084	8	16	440
	SDR 13.5	0.840	0.004	0.062	0.020	0.696	0.676	0.072	8	16	365
	SDR 15.5	0.840	0.004	0.062	0.018	0.698	0.680	0.071	8	16	351
	SCH 40	0.840	0.004	0.109	0.020	0.602	0.582	0.111	8	16	601
	SCH 80	0.840	0.004	0.147	0.020	0.526	0.506	0.139	8	16	768
3/4"	SDR 9	1.050	0.005	0.117	0.020	0.796	0.776	0.152	10	20	821
	SDR 11	1.050	0.005	0.095	0.020	0.840	0.820	0.128	10	20	687
	SDR 13.5	1.050	0.005	0.078	0.020	0.874	0.854	0.110	10	20	570
	SDR 15.5	1.050	0.005	0.068	0.020	0.894	0.874	0.098	10	20	536
	SDR 17	1.050	0.005	0.062	0.020	0.906	0.886	0.091	10	20	460
	SCH 40	1.050	0.005	0.113	0.020	0.804	0.784	0.148	10	20	798
	SCH 80	1.050	0.005	0.154	0.020	0.722	0.702	0.188	10	20	1,040
1"	SDR 9	1.315	0.007	0.146	0.020	1.003	0.983	0.234	13	26	1,288
	SDR 11	1.315	0.007	0.120	0.020	1.055	1.035	0.199	13	26	1,078
	SDR 13.5	1.315	0.007	0.097	0.020	1.101	1.081	0.167	13	26	894
	SDR 15.5	1.315	0.007	0.084	0.020	1.127	1.107	0.149	13	26	792
	SDR 17	1.315	0.007	0.077	0.020	1.141	1.121	0.138	13	26	722
	SCH 40	1.315	0.007	0.133	0.020	1.029	1.009	0.217	13	26	1,340
	SCH 80	1.315	0.007	0.179	0.021	0.936	0.915	0.276	13	26	1,533
1 1/4"	SDR 9	1.660	0.008	0.184	0.022	1.270	1.248	0.370	17	34	2,052
	SDR 11	1.660	0.008	0.151	0.020	1.338	1.318	0.312	17	34	1,717
	SDR 13.5	1.660	0.008	0.123	0.020	1.394	1.374	0.263	17	34	1,425
	SDR 15.5	1.660	0.008	0.107	0.020	1.426	1.406	0.234	17	34	1,234
	SDR 17	1.660	0.008	0.098	0.020	1.444	1.424	0.217	17	34	1,150
	SCH 40	1.660	0.008	0.140	0.020	1.360	1.340	0.293	17	34	1,604
	SCH 80	1.660	0.008	0.191	0.023	1.255	1.232	0.382	17	34	2,116



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**SMOOTHWALL (SDR/SCH) TECHNICAL SPECIFICATIONS** (additional sizes previous and next pages)

	WALL TYPE	NOM OD (IN)	OD TOLERANCE +/-	MIN WALL (IN)	WALL TOLERANCE +	AVG ID (IN)	MIN ID (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP (IN)	BEND RADIUS UNSUP (IN)	SWPS (LB)
1 1/2"	SDR 9	1.900	0.010	0.211	0.025	1.453	1.428	0.485	19	38	2,688
	SDR 11	1.900	0.010	0.173	0.021	1.533	1.512	0.408	19	38	2,249
	SDR 13.5	1.900	0.010	0.141	0.020	1.598	1.578	0.342	19	38	1,867
	SDR 15.5	1.900	0.010	0.123	0.020	1.634	1.614	0.304	19	38	1,607
	SDR 17	1.900	0.010	0.112	0.020	1.656	1.636	0.281	19	38	1,507
	SCH 40	1.900	0.010	0.145	0.020	1.590	1.570	0.350	19	38	1,919
	SCH 80	1.900	0.010	0.200	0.024	1.476	1.452	0.463	19	38	2,564
2"	SDR 9	2.375	0.012	0.264	0.032	1.815	1.783	0.759	24	48	4,200
	SDR 11	2.375	0.012	0.216	0.026	1.917	1.891	0.636	24	48	3,515
	SDR 13.5	2.375	0.012	0.176	0.021	2.002	1.981	0.528	24	48	2,917
	SDR 15.5	2.375	0.012	0.153	0.020	2.049	2.029	0.467	24	48	2,466
	SDR 17	2.375	0.012	0.140	0.020	2.075	2.055	0.432	24	48	2,355
	SCH 40	2.375	0.012	0.154	0.020	2.047	2.027	0.469	24	48	2,579
	SCH 80	2.375	0.012	0.218	0.026	1.913	1.887	0.641	24	48	2,545
2 1/2"	SDR 9	2.875	0.014	0.319	0.038	2.199	2.161	1.110	29	58	6,155
	SDR 11	2.875	0.014	0.261	0.031	2.322	2.291	0.930	29	58	5,151
	SDR 13.5	2.875	0.014	0.213	0.026	2.423	2.397	0.775	29	58	4,274
	SDR 15.5	2.875	0.014	0.185	0.022	2.483	2.461	0.680	29	58	3,592
	SDR 17	2.875	0.014	0.169	0.020	2.517	2.497	0.625	29	58	3,450
	SCH 40	2.875	0.014	0.203	0.024	2.445	2.421	0.740	29	58	4,090
	SCH 80	2.875	0.014	0.276	0.033	2.290	2.257	0.978	29	58	5,409
3"	SDR 9	3.500	0.018	0.389	0.047	2.675	2.628	1.648	39	78	9,122
	SDR 11	3.500	0.018	0.318	0.038	2.826	2.788	1.380	39	78	7,633
	SDR 13.5	3.500	0.018	0.259	0.031	2.951	2.920	1.146	39	78	6,335
	SDR 15.5	3.500	0.018	0.226	0.027	3.021	2.994	1.011	39	78	5,342
	SDR 17	3.500	0.018	0.206	0.025	3.063	3.038	0.928	39	78	5,114
	SCH 40	3.500	0.018	0.216	0.026	3.042	3.016	0.969	39	78	5,348
	SCH 80	3.500	0.018	0.300	0.036	2.864	2.828	1.310	39	78	7,238

**SMOOTHWALL (SDR/SCH) TECHNICAL SPECIFICATIONS** (additional sizes previous and next pages)

	WALL TYPE	NOM OD (IN)	OD TOLERANCE +/-	MIN WALL (IN)	WALL TOLERANCE +	AVG ID (IN)	MIN ID (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP (IN)	BEND RADIUS UNSUP (IN)	SWPS (LB)
4"	SDR 9	4.500	0.023	0.500	0.060	3.440	3.380	2.723	50	100	15,080
	SDR 11	4.500	0.023	0.409	0.049	3.633	3.584	2.282	50	100	12,618
	SDR 13.5	4.500	0.023	0.333	0.040	3.794	3.754	1.895	50	100	10,472
	SDR 15.5	4.500	0.023	0.290	0.035	3.885	3.850	1.669	50	100	8,814
	SDR 17	4.500	0.023	0.265	0.032	3.938	3.906	1.534	50	100	8,453
	SCH 40	4.500	0.023	0.237	0.028	3.998	3.970	1.380	50	100	7,618
	SCH 80	4.500	0.023	0.337	0.040	3.786	3.746	1.914	50	100	10,578
5"	SDR 9	5.563	0.028	0.618	0.074	4.253	4.179	4.161	61	122	23,045
	SDR 11	5.563	0.028	0.506	0.061	4.490	4.429	3.490	61	122	19,284
	SDR 13.5	5.563	0.028	0.412	0.049	4.690	4.641	2.896	61	122	16,004
	SDR 15.5	5.563	0.028	0.359	0.043	4.802	4.759	2.552	61	122	13,483
	SDR 17	5.563	0.028	0.327	0.039	4.870	4.831	2.339	61	122	12,918
	SCH 40	5.563	0.028	0.258	0.031	5.016	4.985	1.872	61	122	10,320
	SCH 80	5.563	0.028	0.375	0.045	4.768	4.723	2.657	61	122	14,669
6"	SDR 9	6.625	0.033	0.736	0.088	5.065	4.977	5.901	73	146	32,684
	SDR 11	6.625	0.033	0.602	0.072	5.349	5.277	4.944	73	146	27,349
	SDR 13.5	6.625	0.033	0.491	0.059	5.584	5.525	4.122	73	146	22,697
	SDR 15.5	6.625	0.033	0.427	0.051	5.720	5.669	3.615	73	146	19,123
	SDR 17	6.625	0.033	0.390	0.047	5.798	5.751	3.324	73	146	18,321
	SCH 40	6.625	0.033	0.280	0.034	6.031	5.997	2.432	73	146	13,395
	SCH 80	6.625	0.033	0.432	0.052	5.709	5.657	3.656	73	146	20,172
8"	SDR 9	8.625	0.043	0.958	0.115	6.593	6.479	10.001	155	233	55,397
	SDR 11	8.625	0.043	0.784	0.094	6.963	6.869	8.383	155	233	46,355
	SDR 13.5	8.625	0.043	0.639	0.077	7.270	7.193	6.969	155	233	38,470
	SCH 40	8.625	0.043	0.322	0.039	7.942	7.903	3.661	155	233	20,158

**SMOOTHWALL (SDR/SCH) TECHNICAL SPECIFICATIONS** (additional sizes previous and next pages)

	WALL TYPE	NOM OD (IN)	OD TOLERANCE +/-	MIN WALL (IN)	WALL TOLERANCE +	AVG ID (IN)	MIN ID (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP (IN)	BEND RADIUS UNSUP (IN)	SWPS (LB)
10"	SDR 9	10.750	0.054	1.194	0.143	8.219	8.076	15.534	194	290	86,057
	SDR 11	10.750	0.054	0.977	0.117	8.679	8.562	13.019	194	290	72,010
	SDR 13.5	10.750	0.054	0.796	0.096	9.062	8.966	10.821	194	290	59,762
	SCH 40	10.750	0.054	0.365	0.044	9.976	9.932	5.215	194	290	28,580
12"	SDR 9	12.750	0.064	1.417	0.170	9.746	9.576	21.866	230	344	121,056
	SDR 11	12.750	0.064	1.159	0.139	10.293	10.154	18.319	230	344	101,297
	SDR 13.5	12.750	0.064	0.944	0.113	10.749	10.636	15.214	230	344	84,067
	SCH 40	12.750	0.064	0.406	0.049	11.889	11.840	6.846	230	344	37,489

**SMOOTHWALL SDR & SCHEDULE NOTES**

- Bend Radius**

½" through 2 ½"	Supported Bend Radius 10 times the OD	Unsupported Bend Radius 20 times the OD
3" through 6"	Supported Bend Radius 11 times the OD	Unsupported Bend Radius 22 times the OD
8" through 16"	Supported Bend Radius 18 times the OD	Unsupported Bend Radius 27 times the OD
- During cable placement, large sweeping bends are recommended over tighter bends. Pre-formed sweeps are recommended for conduit sizes 8" through 16" diameters.
- SWPS (Safe Working Pull Strength) is calculated using a 25% safety factor with the minimum resin tensile strength of 3,000 psi, the average OD and average wall thickness.

## SMOOTHWALL (SIDR) TECHNICAL SPECIFICATIONS

	WALL TYPE	AVG OD (IN)	MIN WALL (IN)	WALL TOLERANCE +	MIN ID (IN)	WEIGHT (LB/FT)	BEND RADIUS SUP (IN)	BEND RADIUS UNSUP (IN)	SWPS (LB)
1/2"	SIDR 9	0.780	0.069	0.020	0.622	0.072	8	16	445
	SIDR 11.5	0.762	0.060	0.022	0.622	0.063	8	16	390
3/4"	SIDR 9	1.026	0.092	0.020	0.824	0.122	10	20	760
	SIDR 11.5	0.986	0.072	0.020	0.824	0.096	10	20	597
1"	SIDR 9	1.298	0.117	0.020	1.049	0.192	13	26	1,471
	SIDR 11.5	1.246	0.091	0.020	1.049	0.150	13	26	891
1 1/4"	SIDR 9	1.701	0.153	0.020	1.380	0.324	17	34	1,652
	SIDR 11.5	1.635	0.120	0.020	1.380	0.253	17	34	1,549
1 1/2"	SIDR 11.5	1.908	0.140	0.020	1.610	0.341	19	38	2,123
2"	SIDR 9	2.553	0.230	0.028	2.067	0.729	24	48	4,535
	SIDR 11.5	2.447	0.180	0.022	2.067	0.558	24	48	3,468
2 1/2"	SIDR 11.5	2.919	0.215	0.026	2.469	0.792	29	58	4,934
3"	SIDR 11.5	3.627	0.267	0.032	3.068	1.225	39	78	7,627
4"	SIDR 11.5	4.768	0.350	0.042	4.026	2.111	50	100	13,119
6"	SIDR 11.5	7.175	0.527	0.063	6.065	4.782	73	146	29,750

### SMOOTHWALL SIDR NOTES:

- Bend Radius**  

1/2" through 2 1/2"	Supported Bend Radius 10 times the OD	Unsupported Bend Radius 20 times the OD
3" through 6"	Supported Bend Radius 11 times the OD	Unsupported Bend Radius 22 times the OD
8" through 16"	Supported Bend Radius 18 times the OD	Unsupported Bend Radius 27 times the OD
- During cable placement, large sweeping bends are recommended over tighter bends. Pre-formed sweeps are recommended for conduit sizes 8" through 16" diameters.
- SWPS (Safe Working Pull Strength) is calculated using a 25% safety factor with the minimum resin tensile strength of 3,000 psi, the average OD and average wall thickness.
- Internal or external ribs are in addition to the average wall and for determining OD and ID dimensions. The average rib height to be added is 0.020"
- Add 0.016 #/ft for ribbed products 1 1/2" and less. For 2" and larger, add 0.025 #/ft