

**STANDARD**

# UL 651A

- ▶ ETL listed to UL 651A, used per NEC Article 353
- ▶ Manufactured from flexible HDPE, makes gradual bends without special equipment
- ▶ Excellent low-temperature properties, for better handling in cold climates
- ▶ Outstanding ductility and strength, protects cables from shifting ground, rock, and root impingement, increasing UG cable life
- ▶ Provides a permanent pathway, simplifies future cable repair and replacement

**INSTALLATION TYPES**

Plow  
Trench

**SIZE RANGE AVAILABLE**

1/2"	1 1/2"	4"
3/4"	2"	5"
1"	2 1/2"	6"
1 1/4"	3"	

**WALL TYPES**

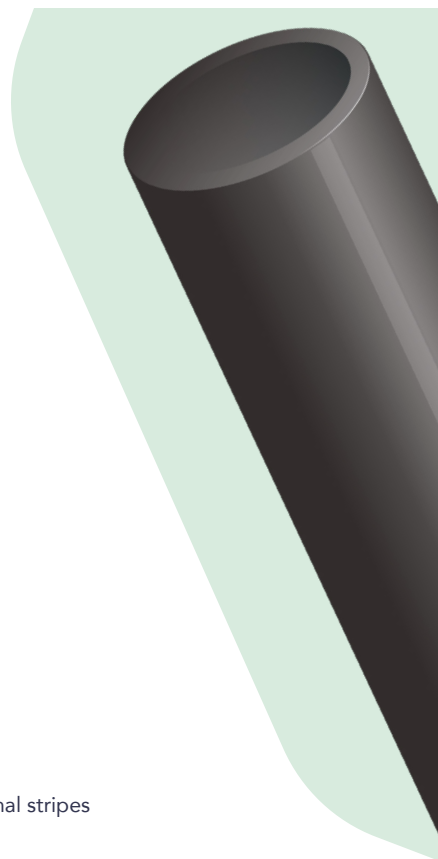
EPEC-11  
EPEC-13.5  
SCH 40  
SCH 80

**STANDARD COLORS**

UV Stabilized

**STANDARD COLORS**

or custom colors with optional stripes



FEATURES

<b>STANDARD</b>
<b>MATERIAL</b> Manufactured from flexible HDPE (High Density Polyethylene)
<b>SPECIFICATIONS</b> ETL Listed to UL 651A, used per NEC Article 353. Meets or exceeds the HDPE resin
<b>CONDUIT MARKINGS</b> Permanent marking along conduit includes: material, relevant standards, production info, and sequential feet or meter markings. Custom options available.
<b>UV PROTECTANT</b> Added UV stabilization package
<b>OPTIONS</b>
<b>CO-EXTRUDED LINING</b> 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.
<b>PRE-INSTALLED TAPE</b> 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.
<b>PRE-INSTALLED CABLE</b> Cable can be factory pre-installed in conduit

**UL 651A TECHNICAL SPECIFICATIONS** (additional sizes next page)

SIZE	WALL TYPE	NOM OD (IN)	OD TOLERANCE +/-	MIN WALL (IN)	WALL TOLERANCE +	AVG ID (IN)	MIN ID (IN)	WEIGHT (LB/FT)	BEND RADIUS (IN)	BEND RADIUS SUP (IN)	BEND RADIUS UNSUP (IN)	SWPS (LB)
1/2"	EPEC-11	0.840	0.004	0.076	0.020	0.668	0.487	0.084	8	16	458	
	EPEC-13.5	0.840	0.004	0.062	0.020	0.696	0.676	0.072	8	16	365	
	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"	EPEC-11	1.050	0.004	0.095	0.020	0.840	0.820	0.128	10	20	701	
	EPEC-13.5	1.050	0.004	0.078	0.020	0.874	0.854	0.110	10	20	570	
	SCH 40	1.050	0.004	0.113	0.020	0.804	0.784	0.148	10	20	798	
	SCH 80	1.050	0.004	0.154	0.020	0.722	0.702	0.188	10	20	1,040	
1"	EPEC-11	1.315	0.005	0.120	0.020	1.055	1.035	0.199	13	26	1,089	
	EPEC-13.5	1.315	0.005	0.097	0.020	1.101	1.081	0.167	13	26	894	
	SCH 40	1.315	0.005	0.133	0.020	1.029	1.009	0.217	13	26	1,340	
	SCH 80	1.315	0.005	0.179	0.021	0.936	0.915	0.276	13	26	1,533	
1 1/4"	EPEC-11	1.660	0.005	0.151	0.020	1.338	1.318	0.312	17	34	1,706	
	EPEC-13.5	1.660	0.005	0.123	0.020	1.394	1.374	0.263	17	34	1,425	
	SCH 40	1.660	0.005	0.140	0.020	1.360	1.340	0.293	17	34	1,604	
	SCH 80	1.660	0.005	0.191	0.023	1.255	1.232	0.382	17	34	2,116	
1 1/2"	EPEC-11	1.900	0.006	0.173	0.021	1.533	1.512	0.408	19	38	2,232	
	EPEC-13.5	1.900	0.006	0.141	0.020	1.598	1.578	0.342	19	38	1,867	
	SCH 40	1.900	0.006	0.145	0.020	1.590	1.570	0.350	19	38	1,919	
	SCH 80	1.900	0.006	0.200	0.024	1.476	1.452	0.463	19	38	2,564	
2"	EPEC-11	2.375	0.006	0.216	0.026	1.917	1.891	0.636	24	48	3,474	
	EPEC-13.5	2.375	0.006	0.176	0.021	2.002	1.981	0.528	24	48	2,917	
	SCH 40	2.375	0.006	0.154	0.020	2.047	2.027	0.469	24	48	2,579	
	SCH 80	2.375	0.006	0.218	0.026	1.913	1.887	0.641	24	48	2,545	

**UL 651A TECHNICAL SPECIFICATIONS** (additional sizes previous page)

SIZE	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)
2 1/2"	EPEC-11	2.875	0.007	0.261	0.031	2.322	2.291	0.930	29	58	5,087
	EPEC-13.5	2.875	0.007	0.213	0.026	2.423	2.397	0.775	29	58	4,274
	SCH 40	2.875	0.007	0.203	0.024	2.445	2.421	0.740	29	58	4,090
	SCH 80	2.875	0.007	0.276	0.033	2.290	2.257	0.978	29	58	5,409
3"	EPEC-11	3.500	0.008	0.318	0.038	2.826	2.788	1.380	39	78	7,535
	EPEC-13.5	3.500	0.008	0.259	0.031	2.951	2.920	1.146	39	78	6,335
	SCH 40	3.500	0.008	0.216	0.026	3.042	3.016	0.969	39	78	5,348
	SCH 80	3.500	0.008	0.300	0.036	2.864	2.828	1.310	39	78	7,238
4"	EPEC-11	4.500	0.009	0.409	0.049	3.633	3.584	2.282	50	100	12,474
	EPEC-13.5	4.500	0.009	0.333	0.040	3.794	3.754	1.895	50	100	10,472
	SCH 40	4.500	0.009	0.237	0.028	3.998	3.970	1.380	50	100	7,618
	SCH 80	4.500	0.009	0.337	0.040	3.786	3.746	1.914	50	100	10,578
5"	EPEC-11	5.563	0.010	0.506	0.061	4.490	4.429	3.523	61	122	19,078
	EPEC-13.5	5.563	0.010	0.412	0.049	4.690	4.641	2.896	61	122	16,004
	SCH 40	5.563	0.010	0.258	0.028	5.016	4.985	1.872	61	122	10,320
	SCH 80	5.563	0.010	0.375	0.045	4.768	4.723	2.657	61	122	14,669
6"	EPEC-11	6.625	0.011	0.602	0.072	5.349	5.277	4.944	73	146	27,000
	EPEC-13.5	6.625	0.011	0.491	0.059	5.584	5.525	4.112	73	146	22,697
	SCH 40	6.625	0.011	0.280	0.034	6.031	5.997	2.432	73	146	13,395
	SCH 80	6.625	0.011	0.432	0.052	5.709	5.657	3.656	73	146	20,172

## UL 651A 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
- 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.

## RESIN REQUIREMENTS PER ASTM D-3350,

having a minimum cell classification of PE334480 C for black and E for color

CELL #	PROPERTY	DESCRIPTION MINIMUM REQUIREMENTS	ACCEPTABLE TEST METHODS
3	Resin Density	0.940-0.947 g/cm <sup>3</sup>	ASTM D-1505 or ASTM D-792 or ASTM D-4883
3	Melt Index	<0.4 grams/10 minutes	ASTM D-1238
4	Flexural Modulus	80,000 psi	ASTM D-790
4	Tensile Strength	3,000 psi	ASTM D-638
-	Elongation	400%	ASTM D-638
8	Slow Crack Growth Resistance	Condition B, 10% Igepal/H <sub>2</sub> O solution, F10 > 96hr	ASTM D-1693
0	Hydrostatic Design Basis	Non-pressure rated	ASTM D-2837
C	Black UV Resistance	Added carbon black @ 2-4% by weight	ASTM D-4218
or E	Color UV Resistance	Color with UV inhibitor and antioxidant	ASTM D-4238



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+1 800 847 7661  
WWW.DURALINE.COM

TL9000

