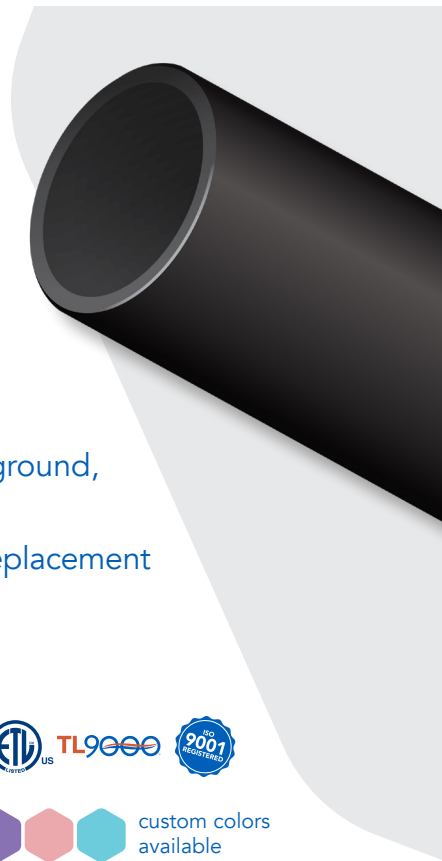


**STANDARD**

# 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**

Existing Conduit  
 Directional Bore  
 Concrete Encased  
 Plow

**size range available**

0.5"	1.5"	4.0"
0.75"	2.0"	5.0"
1.0"	2.5"	6.0"
1.25"	3.0"	

**wall types**

EPEC-B/SDR 13.5  
 EPEC-40/SCH 40  
 EPEC-80/SCH 80



**standard colors**



**stripe colors**



<b>FEATURES</b>	<b>STANDARD</b>
	<b>FOOTAGE MARKINGS</b> Sequential foot or meter markings. Custom print streams available.
	<b>UV STABILIZATION</b> package added.
	<b>STANDARD</b> Meets or exceeds the HDPE resin requirements per ASTM D 3350 UV Black (minimum carbon black loading of 2%), Sequential footage markings, permanent ink jet or indent print, tested and listed by Intertek Laboratories (ETL) to assure compliance with UL 651A, certified by Dura-Line to comply with all UL 651A property and testing requirements.
	<b>PACKAGING</b> Long continuous lengths on reels or coils. Stick lengths of 40' or 50'.
	<b>OPTIONS</b>
	<b>SILICORE</b> is co-extruded with the tough HDPE jacket creating a super, slick permanent lining. SILICORE lined ducts allow for higher speed cable jetting and longer cable pulls.
	<b>PREINSTALLED 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>INTERNAL RIBS</b> Internal straight ribs greatly reduce friction for longer, faster pulls
<b>EXTERNAL STRIPES</b> can be added from our standard color offering to facilitate visual identification.	



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## UL 651A TECHNICAL SPECIFICATIONS

PIPE SIZE	½"	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"	5"	6"	
<b>WALL TYPE</b>	NOM OD (IN)	0.84	1.05	1.315	1.66	1.9	2.375	2.875	3.5	4.5	5.563	6.625
	OD TOLERANCE +/-	0.004	0.004	0.005	0.005	0.006	0.006	0.007	0.008	0.0009	0.01	0.011
	BEND RADIUS SUPPORTED (IN)	8	10	13	17	19	24	29	39	50	61	73
	BEND RADIUS UNSUPPORTED (IN)	16	20	26	34	38	48	58	78	100	122	146
<b>EPEC-B/SDR 13.5</b>	MIN. WALL (IN)		0.078	0.097	0.123	0.141	0.176	0.213	0.259	0.333	0.412	0.491
	WALL TOLERANCE +		0.02	0.02	0.02	0.02	0.021	0.026	0.031	0.04	0.049	0.059
	AVG ID (IN)		0.874	1.101	1.394	1.598	2.002	2.423	2.951	3.794	4.689	5.585
	MIN ID (IN)		0.854	1.081	1.374	1.578	1.981	2.397	2.92	3.754	4.641	5.525
	WEIGHT (#/FT)		0.104	0.162	0.259	0.34	0.53	0.777	1.151	1.902	2.909	4.126
	SWPS (LBS)		570	894	1,425	1,867	2,917	4,274	6,335	10,472	16,004	22,697
<b>EPEC-40/SCH 40</b>	MIN. WALL (IN)	0.109	0.113	0.133	0.14	0.145	0.154	0.203	0.216	0.237	0.258	0.28
	WALL TOLERANCE +	0.02	0.02	0.02	0.02	0.02	0.02	0.024	0.026	0.028	0.031	0.034
	AVG ID (IN)	0.602	0.804	1.029	1.36	1.59	2.047	2.445	3.042	3.998	5.016	6.031
	MIN ID (IN)	0.582	0.784	1.009	1.34	1.57	2.027	2.421	3.016	3.97	4.985	5.997
	WEIGHT (#/FT)	0.109	0.145	0.215	0.291	0.349	0.469	0.744	0.973	1.387	1.882	2.443
	SWPS (LBS)	601	798	1,340	1,604	1,919	2,579	4,090	5,348	7,618	10,320	13,395
<b>EPEC-80/SCH 80</b>	MIN. WALL (IN)	0.147	0.154	0.179	0.191	0.2	0.218	0.276	0.3	0.337	0.375	0.432
	WALL TOLERANCE +	0.02	0.02	0.021	0.023	0.024	0.026	0.033	0.036	0.04	0.045	0.052
	AVG ID (IN)	0.526	0.722	0.936	1.255	1.476	1.913	2.29	2.864	3.786	4.768	5.709
	MIN ID (IN)	0.506	0.702	0.915	1.232	1.452	1.887	2.257	2.828	3.746	4.723	5.657
	WEIGHT (#/FT)	0.139	0.188	0.277	0.383	0.465	0.644	0.982	1.315	1.923	2.668	3.669
	SWPS (LBS)	768	1,040	1,533	2,116	2,564	3,545	5,409	7,238	10,578	14,669	20,172

### UL 651A 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
- 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.



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**RESIN REQUIREMENTS PER ASTM D 3350,  
HAVING A MINIMUM CELL CLASSIFICATION OF 334420 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 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, F50>24hrs	ASTM D 1693
0	Hydrostatic Design Basis	Non-pressure rated	ASTM D 2837
C	Black UV Resistance	Added carbon black @ 2% by weight	ASTM D 4218
OR E	Color UV Resistance	Color with UV inhibitor and antioxidant	ASTM D 4238