

## **Camcore™ DIPS Specification**

# **High Density Polyethylene for Sewer and Waste Water Pipe Collection**



### A. Camcore™

Produced from High Density Polyethylene (HDPE) PE 4710 materials, Camcore<sup>™</sup> pipe is designed for sewer and waste water pipe collection services. Camcore<sup>™</sup> is currenty manufactured in nominal diameters 4 inch through 16 inch in Ductile Iron Pipe Sizes (DIPS). Camcore<sup>™</sup> conforms to AWWA C906 and ASTM D3035 standards. It is pressure rated in accordance to the Plastics Pipe Institute (PPI) TR 3 policies and procedures.

Camcore<sup>TM</sup> pipe enhances video inspection and lateral tap locating by utilizing a coextruded light color interior surface. This polyethylene pipe contains a light grey interior surface which is considered the standard for sewer and water collection applications in both Rural and Municipal water Systems. Also external striping colors are available to identify specific usages such as non-potable water, grey water, reclaimed water, waste water, force main and gravity municipal sewage, etc. Camcore<sup>TM</sup> HDPE is chemical and corrosion resistant pipe, especially against hydrogen sulfide attack, oxidation and tuberculation. In comparison to solid wall grey HDPE pipe, Camcore<sup>TM</sup> has indefinite outdoor storage life due to carbon black's resistance to UV degradation. Whereas competitive grey products do not. It also has a higher density allowing for greater abrasion resistance and pull strength. Camcore<sup>TM</sup> is an excellent choice for sewer and waste water infrastructure pipe applications.

Working Pressure Classes for Camcore™ DIPS							
DIPS Size	Average	Pressure Class	PC250	PC200	PC 150	PC 125	PC100
	OD (inches)	SDR	9	11	13.5	17	21
4	4.80	Min. Wall	0.533	0.436	0.336	0.282	0.229
		Avg. ID	3.669	3.875	4.088	4.201	4.315
		lbs/ft	3.093	2.587	2.040	1.732	1.423
6	6.90	Min. Wall	0.767	0.627	0.483	0.406	0.329
		Avg. ID	5.275	5.570	5.877	6.040	6.203
		lbs/ft	6.396	5.348	4.215	3.585	2.940
8	9.05	Min. Wall	1.006	0.823	0.633	0.532	0.431
		Avg. ID	6.918	7.306	7.708	7.921	8.136
		lbs/ft	11.004	9.207	7.245	6.162	5.051
10	11.10	Min. Wall	1.233	1.009	0.779	0.653	0.529
		Avg. ID	8.485	8.961	9.454	9.716	9.979
		lbs/ft	16.543	13.845	10.894	9.276	7.604
12	13.20	Min. Wall	1.467	1.200	0.923	0.776	0.629
		Avg. ID	10.091	10.656	11.243	11.554	11.897
		lbs/ft	23.405	19.581	15.409	13.110	10.752
14	15.30	Min. Wall	1.700	1.391	1.070	0.900	0.729
		Avg ID	11.696	12.351	13.032	13.392	13.755
		lb/ft	31.438	26.308	20.704	17.623	14.444
16	17.40	Min. Wall	1.933	1.582	1.217	1.024	0.829
		Avg ID	13.301	14.047	14.820	15.230	15.643
		lb/ft	40.654	34.027	26.780	22.802	18.680

Note: For evaluated temperatures greater than 73 F refer to WL 118



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### **B. Pipe Material:**

Camcore<sup>™</sup> pipe is produced from the highest rated HDPE pipe materials. This is a long lasting, fusible pipe. Camcore<sup>™</sup> HDPE materials are listed in Plastics Pipe Institutes (PPI) Technical Report 4 (TR-4) (ref: plasticpipe.org/Publications/technical-reports.html)

Camcore<sup>™</sup> is classified under ASTM D3350 as a Type III, Class PE445574C/E, Grade PE47 Camcore<sup>™</sup> is also classified under ASTM D1248 as a Type III, Class D, Category 5, Grade E10 or E11.

### C. Camcore<sup>™</sup> Advantages:

- Leak Free Piping
- Video Surveillance Enhancement
- Durable
- Fatique Free
- Chemical Resistance

- UV protected
- Lateral Tap Locating
- Impact Resistant
- Does NOT support Biological Growth
- Environmentally friendly
- Flexible

- Excellent for Trenchless Piping System Installations
- Fusion Condition Compatibility
- Surge resistant
- Fusible Pipe

Camcore™ ASTM D3350 cell classification of PE445574C/E						
	Property	Standard	Typical Value			
Class	Cell Classification	ASTM D3350	445574C/E (Black/Gray)			
4	Density	ASTM D1505	0.960 g/cc (Black/Gray)			
4	Melt Index	ASTM D1238	0.1 g/10m			
5	Flexural Modulus	ASTM D790	>110,000 <160,000 psi			
5	Tensile Strength	ASTM D638	>3500 psi			
7	SCG (PENT)	ASTM F1473	>500 hours			
4	HDB @73F	ASTM D2837	1600 psi			
C/E	Color; UV Stabilizer	ASTM D3350	Carbon Black/Color w/ UV Stabilizer			

Note: PPI TR-4 Hydrostatic Design Stress (HDS), Strength Design Basis (SDB), Pressure Design Basis (PDB) and Minimum Required Strength (MRS) Ratings for Thermoplastic Piping Materials or Pipe

#### D. Pipe Fusion:

It is recommended that HDPE pipe fusion in accordance to ASTM F2620, PPI TR-33, and pipe and fittings manufacturing recommendations (Ref: WL 101). Mechanical joining procedures supplied by fittings manufacture(s). Camcore™ is manufactured to ASTM D3035 which contains tighter OD tolerances than ASTM F714 for improved electro-fusion compatibilities. It also meets and exceeds ASTM F714 requirements.

#### E. Pipe Installation of HDPE Plastic Pipe:

Installations follow manufacturing recommendations and applicable to ASTM D2774, D2657, F2620, D2683, D3261, F1055. AWWA C901 or C906. AWWA M5. and/or WL 101 and WL113.

WL Plastics Corp. is a HDPE Pipe Manufacturer that manufacturer's high performance High Density Polyethylene (HDPE) pipe and related products for the oil, gas, mining, industrial and municipal water markets which is a long lasting pipe with a predicted service life >100 years. With U.S. and Canadian locations WL Plastics is one of the largest manufacturers of polyethylene pipe in North America.

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ISO 9001:2008 Certified