

### **1.0 Scope**

This specification covers restrained-joint Polyvinyl Chloride (PVC) Pipe, 4" – 12", with Iron Pipe Size (I.P.S.) outside diameters. Pipe is intended for use in gravity sewer and sewer force main piping systems installed with open-cut or trenchless construction techniques.

### **2.0 Reference Documents ASTM International**

<b>ASTM D1784</b>	STANDARD SPECIFICATION FOR RIGID PVC COMPOUNDS AND CHLORINATED PVC COMPOUNDS
<b>ASTM D2241</b>	STANDARD SPECIFICATION FOR POLY(VINYL CHLORIDE) (PVC) PRESSURE-RATED PIPE (SDR SERIES)
<b>ASTM D2837</b>	STANDARD TEST METHOD FOR OBTAINING HYDROSTATIC DESIGN BASIS FOR THERMOPLASTIC PIPE MATERIALS
<b>ASTM D3139</b>	STANDARD SPECIFICATION FOR JOINTS FOR PLASTIC PRESSURE PIPES USING FLEXIBLE ELASTOMERIC SEALS
<b>ASTM F477</b>	STANDARD SPECIFICATION FOR ELASTOMERIC SEALS (GASKETS) FOR JOINING PLASTIC PIPE

### **3.0 Requirements**

#### **3.1 General**

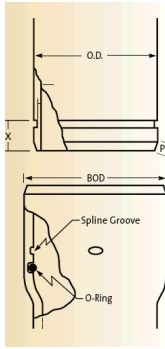
Products delivered under this specification shall meet the dimensional and materials requirements of ASTM D2241.

#### **3.2 Materials**

Pipe shall be made from unplasticized PVC compounds having a minimum cell classification of 12454, as defined in ASTM D1784. The compound shall qualify for a Hydrostatic Design Basis (HDB) of 4000 psi for water at 73.4°F, in accordance with the requirements of ASTM D2837.

#### **3.3 Dimensions**

Nominal outside diameters and wall thicknesses of restrained-joint pipe shall conform to the requirements of ASTM D2241. Restrained-joint pipe shall be furnished in 4", 6", & 8" sizes, Class SDR21 (equivalent pressure rating = 200 psi) and 10" & 12" sizes, Class SDR26 (new product - equivalent pressure rating TBD). Pipe shall be furnished in standard lengths of 10 & 20 feet as shown in the following table.



Dimensions, Weights and Performance Data											
LAYING LENGTH	SIZE	SDR	O.D.	MIN. WALL	APPROX. MIN I.D.	ALLOWABLE TENSILE LOAD. LBS.*	APPROX. WEIGHT LBS/FT	BOD	X	P	PART NUMBER
10'	4"	21	4.500	0.214	3.824	6,500	1.98	5.15	3.000	0.125	266409
10'	6"	21	6.625	0.316	5.608	8,200	4.19	7.55	3.000	0.188	266416
10'	8"	21	8.625	0.411	7.303	15,500	7.28	9.80	3.163	0.625	266423
10'	10"	26	10.750	0.413	9.690	18,500	8.93	11.75	3.500	0.656	266454
10'	12"	26	12.750	0.490	11.468	22,000	12.56	13.95	3.500	0.656	266478
20'	8"	21	8.625	0.411	7.303	15,500	7.01	9.80	3.163	0.625	266447
20'	10"	26	10.750	0.413	9.690	18,500	8.73	11.75	3.500	0.656	266461
20'	12"	26	12.750	0.490	11.468	22,000	12.29	13.95	3.500	0.656	266485

### 3.4 Joints

Pipe shall be joined using a non-metallic spline-lock system for maximum reliability and interchangeability. High-strength, flexible thermoplastic splines shall be inserted into mating, precision-machined grooves in the pipe and bell to provide full 360° restraint with evenly distributed loading.

Integral Bell joints shall incorporate an elastomeric sealing gasket meeting the requirements of ASTM F477. Joints shall be designed to meet the leakage test requirements of ASTM D3139.

### 3.5 Workmanship

Pipe shall be homogeneous throughout and free from voids, cracks, inclusions and other defects, and shall be as uniform as commercially practicable in color, density and other physical characteristics.

### 3.6 Marking

Pipe shall be legibly and permanently marked in ink with the following minimum information:

- Nominal size (for example, 4 In.)
- Outside Diameter System (I.P.S.)
- PVC
- Standard Dimension Ratio (SDR) and pressure rating
- Manufacturer's name or trademark and production record code

### 3.7 APPROVED MANUFACTURERS

CertaFlo™ GreenLine restrained-joint PVC pipe from CertainTeed Corporation, or approved equal.

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