

# VINYLTECH GREEN PIPE

## TECHNICAL DATA SUBMITTAL



### SCOPE

These specifications designate the dimensional requirements for manufacturing and installing Vinyltech's Green PVC pipe for wastewater force mains.

**AWWA C900-07** - Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 in. Through 12 in. (100mm Through 300mm), for Water Transmission and Distribution

**AWWA C905-10** - Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 14" Through 48" (350mm Through 1,200mm) for Water Distribution

**AWWA C605** - Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water

**ASTM D1784** - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds

**ASTM D3139** - Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals

**ASTM F477** - Standard Specification for Elastomeric Seals (Gaskets ) for Joining Plastic Pipe

**ASTM D2122** - Standard Method of Determining Dimensions of Thermoplastic Pipe and Fittings

**ASTM D2837** - Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials

### PIPE COMPOUND

The pipe shall be extruded from compounds meeting (PVC1120) the requirements of Cell Classification 12454, as defined in ASTM D1784, Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.

### PIPE

Vinyltech pipe shall be manufactured in accordance with the dimensional standards of AWWA C900 or AWWA C905.

### GASKET JOINT

The gasket shall be reinforced with a steel band and meet the requirements of ASTM F477. Vinyltech pipe shall have an integral bell end with a locked-in factory installed gasket and shall meet the joint requirements of ASTM D3139.

### MARKING

Vinyltech's Green Force Main PVC pipe is marked with standard C900 and C905 print lines in intervals not to exceed 5 feet. The UL, FM, and NSF designations do not apply and are not printed on the pipes.

### QUALITY CONTROL

Our full-time quality assurance staff continually administers a rigid program of Vinyltech's standard tests to maintain the production of the best pipe products available.

### INSTALLATION

Recommended installation procedures of Vinyltech Corporation are outlined in AWWA C605, Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water. The AWWA Manual M23, PVC Pipe-Design and Installation, is also an invaluable resource guide for design and installation.

### ASSEMBLING THE PIPE

Assembly of Vinyltech Green Force Main PVC pipe is easily accomplished. A depth of entry mark is on each spigot end to serve as a visual check for rapid, accurate joint inspection. **Do not over insert.**

- 1) Remove any mud, sand, or other foreign matter from the belled and spigot ends of the pipe. Carefully clean the gasket area.
- 2) With a clean applicator (a brush or hand) lubricate the entire surface of the pipe from the spigot end to the depth of entry mark and the contact surface of the gasket with **Vinyltech Brand Lubricant**.
- 3) Brace the bell to avoid disturbing the already installed joints. Align the pipe, insert the spigot into the bell and push.
- 4) **Do not insert past the entry mark line.**



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AN OTTERTAIL COMPANY

GREEN PIPE

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GREEN PIPE

### C900 DR 18 PRESSURE CLASS 235

| NOMINAL SIZE (IN) (mm) | OUTER DIAMETER (IN) | MINIMUM WALL | LIFTS PER TRUCK | FEET PER LIFT | APPROXIMATE WEIGHT (LB/100') |
|------------------------|---------------------|--------------|-----------------|---------------|------------------------------|
| 4 (100)                | 4.80                | 0.267        | 16              | 1020          | 251.6                        |
| 6 (150)                | 6.90                | 0.383        | 16              | 440           | 521.2                        |
| 8 (200)                | 9.05                | 0.503        | 20              | 200           | 903.0                        |
| 10 (250)               | 11.10               | 0.617        | 12              | 240           | 1364.4                       |
| 12 (300)               | 13.20               | 0.733        | 28              | 60-80         | 1935.8                       |

### C900 DR 14 PRESSURE CLASS 305

| NOMINAL SIZE (IN) (mm) | OUTER DIAMETER (IN) | MINIMUM WALL | LIFTS PER TRUCK | FEET PER LIFT | APPROXIMATE WEIGHT (LB/100') |
|------------------------|---------------------|--------------|-----------------|---------------|------------------------------|
| 4 (100)                | 4.80                | 0.343        | 16              | 1020          | 317.5                        |
| 6 (150)                | 6.90                | 0.493        | 16              | 440           | 658.7                        |
| 8 (200)                | 9.05                | 0.646        | 20              | 200           | 1139.7                       |
| 10 (250)               | 11.10               | 0.793        | 12              | 240           | 1722.3                       |
| 12 (300)               | 13.20               | 0.943        | 28              | 60-80         | 2445.5                       |

### C905 DR 25 PRESSURE RATED 165

| NOMINAL SIZE (IN) (mm) | OUTER DIAMETER (IN) | MINIMUM WALL | LIFTS PER TRUCK | FEET PER LIFT | APPROXIMATE WEIGHT (LB/100') |
|------------------------|---------------------|--------------|-----------------|---------------|------------------------------|
| *14 (350)              | 15.30               | 0.612        | 120             | 1440          | 1935.0                       |
| 16 (400)               | 17.40               | 0.696        | 40/60           | 1000          | 2575.0                       |
| 18 (450)               | 19.50               | 0.780        | 40/60           | 1000          | 3165.0                       |
| *20 (500)              | 21.60               | 0.864        | 80              | 640           | 3900.0                       |
| *24 (600)              | 25.80               | 1.032        | 60              | 360           | 5600.0                       |

### C905 DR 18 PRESSURE RATED 235

| NOMINAL SIZE (IN) (mm) | OUTER DIAMETER (IN) | MINIMUM WALL | LIFTS PER TRUCK | FEET PER LIFT | APPROXIMATE WEIGHT (LB/100') |
|------------------------|---------------------|--------------|-----------------|---------------|------------------------------|
| *14 (350)              | 15.30               | 0.850        | 120             | 1440          | 2650.0                       |
| 16 (400)               | 17.40               | 0.967        | 40/60           | 1000          | 3475.0                       |
| 18 (450)               | 19.50               | 1.083        | 40/60           | 1000          | 4340.0                       |
| *20 (500)              | 21.60               | 1.200        | 80              | 640           | 5350.0                       |
| *24 (600)              | 25.80               | 1.433        | 60              | 360           | 7650.0                       |

\*Northern Pipe Products

## THE RIEBER SEALING SYSTEM

The Rieber system provides a proven pipe joint with an excellent track record in the field. It is the fastest growing system in the world because of its many advantages.

- Factory installed, locked-in gasket
- The pipe bell forms over the gasket, making a perfect fit
- Avoids the possibility of installing the wrong gasket
- Reduces installation problems
- The locked-in gasket eliminates gasket roll-out during joining
- The gasket is molded vs. extruded and spliced
- Works equally well under pressure or vacuum
- Three sealing points achieved vs. two
- **LEAK-PROOF JOINTS**
- **“THE WORLDS BEST JOINT”**