

Scope

This specification designates the requirements for 12- through 60-inch (300 to 1500mm) Prinsco GOLDPRO STORM® Dual Wall polypropylene pipe for use in gravity-flow land drainage applications.

Pipe Requirements

Prinsco GOLDPRO Storm pipe shall have annular exterior corrugations with a smooth interior allowing for a Manning's "n" design value of 0.012 and shall meet the following standards:

- 12- through 60-inch (300 to 1500mm) shall meet ASTM F2881 and AASHTO M330, Type S or SP

Materials

GOLDPRO Storm pipe and fabricated fittings shall be manufactured using virgin Polypropylene (PP) compounds meeting the requirements of ASTM F2881 and AASHTO M330. Polypropylene compounds shall be comprised of the base polypropylene virgin resin and all additives, colorants, UV inhibitors, and stabilizers. Conditioning, sampling, preparation, and testing of molded specimens shall be in accordance with the requirements in ASTM D4101.

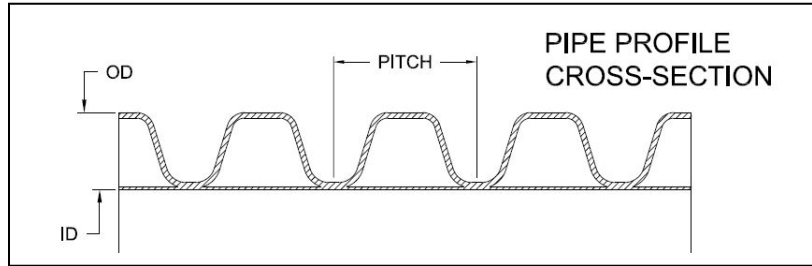
Joint Performance

GOLDPRO Storm pipe joints shall meet the requirements of ASTM F2881 and AASHTO M330.

- Watertight Joints – GOLDPRO Storm is available with gasketed integral bell and spigot type watertight joints. The integral joints shall be watertight in accordance with ASTM D3212. Gaskets shall meet the requirements of ASTM F477 and shall be installed by the manufacturer. An approved joint lubricant, available from the manufacturer, shall be applied to the bell and gasket during installation. GOLDPRO Storm watertight joints shall be assembled in accordance with the manufacturer's recommendations to ensure installed watertight performance.
- Soil Tight Connection – GOLDPRO Storm is available in plain end configuration and shall be joined with external couplers. Coupling methods shall be designed to positively engage with the external corrugations and shall meet the soil tightness requirements of paragraph 26.4.2.4 in Section 26 of the *AASHTO LRFD Bridge Construction Specifications*.

Fittings

Fittings shall meet the requirements of ASTM F2881 and AASHTO M330. Standard plain end fittings are available and custom fittings may be fabricated to customer-specific requirements including integral bell and spigot connections to create a watertight joint in accordance with ASTM D3212.

**Physical Pipe Dimensions**

Nominal ID in (mm)	Approximate OD in (mm)	Corrugation Pitch in (mm)	Min. Pipe Stiffness @ 5% Deflection psi (kpa)
12 (300)	14.7 (373)	1.7 (43)	70 (483)
15 (375)	17.8 (452)	2.6 (66)	60 (414)
18 (450)	21.5 (546)	2.6 (66)	56 (386)
24 (600)	28.2 (716)	4.0 (102)	50 (345)
30 (750)	34.7 (881)	4.0 (102)	46 (317)
36 (900)	40.9 (1040)	4.7 (119)	40 (276)
42 (1050)	47.9 (1220)	5.9 (150)	35 (241)
48 (1200)	54.6 (1390)	5.9 (150)	30 (207)
60 (1500)	67.0 (1700)	5.9 (150)	25 (172)

Installation

Pipe and fittings shall be installed in accordance with ASTM D2321 and Prinsco’s installation guidelines. Minimum cover heights for AASHTO H-25 loads shall be 12” (300mm) for 4- through 48-inch (100 to 1200mm) diameter pipe and 18” (450mm) for 60-inch (1500mm) pipe. The minimum cover shall be measured from the top of the pipe to the bottom of flexible pavement or to the top of rigid pavement. Contact your local Prinsco representative or visit www.prinsco.com for the latest installation guidelines.

Reference Specifications

This specification references the latest edition and revisions of the following standard specifications:

- ASTM F2881 – *Standard Specification for 12 to 60 in. (300 to 1500 mm) Polypropylene (PP) Dual Wall Pipe and Fittings for Non-Pressure Storm Sewer Applications*
- AASHTO M330 – *Standard Specification for Polypropylene Pipe, 300- to 1500-mm (12- to 60-in) Diameter*
- ASTM D4101– *Standard Specification for Polypropylene Injection and Extrusion Materials*
- ASTM D3212 – *Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals*
- ASTM F477 – *Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe*
- ASTM D2321 – *Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications*