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AMERICAN SOCIETY FOR TESTING AND MATERIALS
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# Standard Practice for Installation of Thermoplastic Pipe and Corrugated Pipe in Septic Tank Leach Fields[1]

This standard is issued under the fixed designation F 481; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This practice describes procedures for handling and installing thermoplastic pipe and corrugated pipe in septic tank leach fields, curtain drains, and from the septic tank to the leach field. Proper installation ensures that the pipe will satisfactorily convey and distribute partially treated waste water to a leaching field for additional treatment and disposal by soil absorption. The curtain or perimeter drain will function to protect the soil absorption capacity of the leach field.

1.2 To ensure compliance with local regulatory provisions, the local approving authority (local health departments, etc.) should be contacted regarding specific requirements for leach field design materials and installation.

1.3 This practice applies to pipe and fittings made under each of the following ASTM specifications:

1.3.1 For transport from tank to leach field: Specifications D 2680, D 2729, D 2751, D 2852, D 3034, F 405, F 758, F 789, F 810, F 891, F 892, and F 949.

1.3.2 Perforated, for use in leach field or curtain drain: Specifications D 2729, D 2751, F 405, F 810, F 891, and F 892.

1.4 Pipe intended for installation in accordance with this practice should have a minimum pipe stiffness as specified in the appropriate product standard referenced in 1.3.1 or 1.3.2.

1.5 The values stated in inch-pound units are to be regarded as the standard.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* For specific precautionary statements, see Section 7.

## 2. Referenced Documents

2.1 *ASTM Standards:*

D 1600 Terminology for Abbreviated Terms Relating to Plastics[2]

D 2321 Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications[3]

D 2680 Specification for Acrylonitrile-Butadiene-Styrene (ABS) and Poly(Vinyl Chloride) (PVC) Composite Sewer Piping[3]

D 2729 Specification for Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings[3]

D 2751 Specification for Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings[3]

D 2852 Specification for Styrene-Rubber (SR) Plastic Drain Pipe and Fittings[3]

F 405 Specification for Corrugated Polyethylene (PE) Pipe and Fittings[3]

F 412 Terminology Relating to Plastic Piping Systems[3]

F 449 Practice for Subsurface Installation of Corrugated Polyethylene (PE) Pipe for Agricultural Drainage or Water Table Control[3]

F 758 Specification for Smooth-Wall Poly(Vinyl Chloride) (PVC) Plastic Underdrain Systems for Highway, Airport, and Similar Drainage[3]

F 789 Specification for Type PS-46 Poly(Vinyl Chloride) (PVC) Plastic Gravity Flow Sewer Pipe and Fittings[3]

F 810 Specification for Smooth-Wall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields[3]

F 891 Specification for Coextruded Poly(Vinyl Chloride) (PVC) Plastic Pipe With a Cellular Core[3]

F 892 Specification for Polyethylene (PE) Corrugated Pipe With a Smooth Interior and Fittings[3]

F 949 Specification for Poly(Vinyl Chloride) (PVC) Corrugated Sewer Pipe With a Smooth Interior and Fittings[3]

## 3. Terminology

3.1 Definitions are in accordance with Terminology F 412 and abbreviations are in accordance with Terminology D 1600, unless otherwise specified.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *dual-wall pipe*—pipe with corrugated exterior and smooth interior.

3.2.2 *pipe*—smooth or corrugated interior wall thermoplastic pipe.

[1] This practice is under the jurisdiction of ASTM Committee F-17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.65on Land Drainage.

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[2] *Annual Book of ASTM Standards*, Vol 08.01.

[3] *Annual Book of ASTM Standards*, Vol 08.04.