

907.16 Thermoplastic Pipe Requirements

A list of approved thermoplastic pipe and liner pipe will be maintained by the Department. The list will specify the manufacturer and thermoplastic pipe designation. All of these materials shall comply with the applicable AASHTO or ASTM requirements listed in the following table and will only be accepted from qualified manufacturers. The manufacturer is defined as the plant which produces the thermoplastic pipe. The manufacturer shall become qualified by establishing a history of satisfactory quality control of these materials as evidenced by the test results performed by the manufacturer's testing laboratory.

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SUMMARY OF THERMOPLASTIC PIPE SPECIFICATION REQUIREMENTS				
Pipe Material	Standard Specifications	AASHTO	ASTM	Manufacturer Requirements
Corrugated Polyethylene Drainage Tubing	907.17(a)	M 252		ITM 806, Procedure O
Corrugated Polyethylene Pipe	907.17(b)	M 294		ITM 806, Procedure O
Corrugated Polypropylene Pipe	907.19	M 330		ITM 806, Procedure O
Perforated PVC Semicircular Pipe	907.18		D 3034	ITM 806, Procedure A
Profile Wall PVC Pipe	907.22	M 304		ITM 806, Procedure O
Profile Wall Polyethylene Pipe	907.20		F 894	ITM 806, Procedure A
Schedule 40 PVC Pipe	907.24(b)		D 1785 or D 2665	916, Type C Cert.
Smooth Wall Polyethylene Pipe	907.21		F 714	ITM 806, Procedure A
Smooth Wall PVC Pipe	907.23	M 278	F 679	ITM 806, Procedure A
Type PSM PVC Pipe and Fittings	907.24(a)		D 3034	ITM 806, Procedure A

907.17 Corrugated Polyethylene Drainage Tubing and Pipe

(a) Corrugated Polyethylene Tubing

Tubing and fittings shall be in accordance with AASHTO M 252. Perforations shall be required for tubing used as a longitudinal underdrain. Qualification requirements for the manufacturers shall be in accordance with ITM 806, Procedure O.

250 **(b) Corrugated Polyethylene Pipe**

Pipe and fittings shall be in accordance with AASHTO M 294. Qualification requirements for the manufacturers shall be in accordance with ITM 806, Procedure O.

907.18 Perforated PVC Semicircular Pipe

260 Perforated PVC semicircular pipe may be used as an alternate to 6 in. or less diameter pipe or tile. Pipe shall be in accordance with ASTM D 3034, SDR 35. This semicircular pipe shall have a smooth top and a smooth, semicircular bottom, nominally 4 5/8 in. in diameter, with perforations uniformly distributed along the top of the bottom section in accordance with AASHTO M 252 perforation requirements. The top section shall extend a minimum of 1/2 in. beyond the top of the semicircular section. The top section shall be approximately 6 3/8 in. wide including the sloping overhangs on each side. Qualification requirements for the manufacturers shall be in accordance with ITM 806, Procedure A.

907.19 Corrugated Polypropylene Pipe

Pipe and fittings shall be in accordance with AASHTO M 330. Qualification requirements for the manufacturers shall be in accordance with ITM 806, Procedure O.

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907.20 Profile Wall Polyethylene Pipe

Pipe and fittings shall be either closed profile or ribbed open profile in accordance with ASTM F 894. Qualification requirements for the manufacturers shall be in accordance with ITM 806, Procedure A.

907.21 Smooth Wall Polyethylene Pipe

280 Pipe shall be in accordance with ASTM F 714 for nominal diameters of 39 in. or less. Fittings shall be in accordance with ASTM F 1055. The pipe sizes shall be in accordance with ISO sizing system. The pipe dimension ratio shall be 26 or less. The resin used in manufacturing this type of pipe shall have a minimum cell classification of 335434C in accordance with ASTM D 3350 or a minimum grade of PE4710 in accordance with ASTM F 714. Qualification requirements for the manufacturers shall be in accordance with ITM 806, Procedure A.

907.22 Profile Wall PVC Pipe

Pipe and fittings shall be in accordance with AASHTO M 304. Perforations shall be required when used as a longitudinal underdrain or end bent drain pipe. Qualification requirements for the manufacturers shall be in accordance with ITM 806, Procedure O.

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907.23 Smooth Wall PVC Pipe

Pipe and fittings shall be in accordance with AASHTO M 278 for pipe sizes 4 in. through 15 in., and ASTM F 679 for pipe sizes 18 in. through 27 in. Qualification requirements for the manufacturers shall be in accordance with ITM 806, Procedure A.