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An American National Standard

Standard Specification for Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Pressure Pipe¹

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^{ε1} NOTE—Section 1.1 was editorially updated and Note A2.1 was reinstated in June 2002.

^{ε2} NOTE—Section 10 was editorially updated in December 2002.

1. Scope

1.1 This specification covers a coextruded crosslinked polyethylene composite pressure pipe with a welded aluminum tube reinforcement between the inner and outer layers. The inner and outer crosslinked polyethylene layers are bonded to the aluminum tube by a melt adhesive. Included is a system of nomenclature for the crosslinked polyethylene-aluminum-crosslinked polyethylene (PEX-AL-PEX) pipes, the requirements and test methods for materials, the dimensions of the component layers and finished pipe, adhesion tests, and the burst and sustained pressure performance. Also given are the requirements and methods of marking. The pipe covered by this specification is intended for use in potable water distribution systems for residential and commercial applications, water service, underground irrigation systems, and radiant panel heating systems, baseboard, snow- and ice-melt systems, and gases that are compatible with the composite pipe and fittings.

1.2 This specification covers only composite pipes incorporating a welded aluminum tube. Pipes consisting of metallic layers not welded together are outside the scope of this specification.

1.3 Specifications for connectors for use with pipe meeting the requirements of this specification are given in Annex A1.

1.4 This specification excludes polyethylene-aluminum-polyethylene pipes (see Specification F 1282).

1.5 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.6 The following precautionary caveat pertains only to the test methods portion, Section 9, of this specification: *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.*

¹ This specification is under the jurisdiction of ASTM Committee F17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.11 on Composite. Current edition approved Apr. 10, 2002; Oct. 1, 2003. Published May 2002; November 2003. Originally published as F 1281—90; approved in 1990. Last previous edition approved in 2002 as F 1281 – 01^{ε2}.