



*NSF International Standard /
American National Standard*

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Plastics Piping System Components
and Related Materials



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for Plastics —

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Foreword²

The purpose of this Standard is to establish minimum physical, performance, and health effects requirements for plastics piping system components and related materials.

In this edition of NSF/ANSI 14, the following revisions have been incorporated:

Issue 21

Normative References were updated including the addition of the following:

ASTM F 1483-05. *Standard Specification for Oriented Poly(Vinyl Chloride), PVCO, Pressure Pipe*

ASTM F1673-04. *Standard Specification for Polyvinylidene Fluoride (PVDF) Corrosive Waste Drainage Systems*

ASTM F 2306-05. *Standard Specification for 12 to 60 in. [300 to 1500 mm] Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Gravity-Flow Storm Sewer and Subsurface Drainage Applications*

ASTM F 2623-07. *Standard Specification for Polyethylene of Raised Temperature (PE-RT) SDR Tubing⁵*

AWWA C904-06. *Cross-Linked Polyethylene (PEX) Pressure Pipe, 1/2 In. (12mm) Through 3 In. (76 mm), for Water Service*

AWWA C909-02. *Molecularly Oriented Polyvinyl Chloride (PVCO) Pressure Pipe, 4 IN through 12 IN. (100 MM through 600 MM), for Water Distribution*

UL 1285 (4th edition), *Standard for Safety Pipe and Couplings, Polyvinyl Chloride (PVC), for Underground Fire Service*

ASTM F 2023-05. *Test Method for Evaluating the Oxidative Resistance of Crosslinked Polyethylene (PEX Tubing and Systems to Hot Chlorinated Water*

and deletion of the following:

ASTM D 2666-96a, *Standard Specification for Polybutylene (PB) Plastic Tubing*

ASTM D 4181-00. *Standard Classification for Acetal (POM) Molding and Extrusion Materials*

ASTM F 2023-2003. *Test Method for Evaluating the Oxidative Resistance of Crosslinked Polyethylene (PEX Tubing and Systems to Hot Chlorinated Water*

Issue 22

QC tables were updated with the addition of new standards already referenced in the normative reference section.

Issue 23

QC requirements were added in table 10 for polyethylene pipe.

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Issue 24

This issue added requirements that each colored pipe made from a classified material be tested to section 5.7.

Issue 25

Section 7 was updated to exclude lead as an intentional ingredient in potable water plastic piping system components and related materials.

This Standard was developed by the NSF Joint Committee on Plastics using the consensus process described in NSF Standards Development Policies and accredited by ANSI.

Suggestions for improvement of this Standard are welcome. Comments should be sent to Chair, Joint Committee on Plastics, c/o NSF International, Standards Department, PO Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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NSF/ANSI Standard
for Plastics —

Plastics piping system components and related materials

1 General

1.1 Purpose

This Standard establishes minimum physical, performance, and health effects requirements for plastic piping system components and related materials. These criteria were established for the protection of public health and the environment.

1.2 Scope

The physical, performance, and health effects requirements in this Standard apply to thermoplastic and thermoset plastic piping system components, including but not limited to pipes, fittings, valves, joining materials, gaskets, and appurtenances. The established physical, performance, and health effects requirements also apply to materials (resin or blended compounds) and ingredients used to manufacture plastic piping system components. This Standard provides definitions and requirements for materials, ingredients, products, quality assurance, marking, and recordkeeping.

1.3 Materials, design, and construction

For plastic piping system components and materials cited by the references in 2, the materials, design, and construction requirements of this Standard and the applicable product standard(s) in 2 shall apply. When materials, designs, or constructions are utilized that are not cited in 2, the plastic piping system components and related materials shall comply with the applicable requirements of this Standard. Plastic piping system components and related materials that incorporate materials, designs, or constructions not cited in 2 are acceptable, provided that such plastic piping system components and related materials can be demonstrated to be at least equivalent in terms of strength, quality, effectiveness, durability, and safety to those that are cited in this Standard.

2 Normative references

The following documents contain requirements that, by reference in this text, constitute requirements of this Standard. At the time of publication, the indicated editions were valid. All of the documents are subject to revision, and parties are encouraged to investigate the possibility of applying the recent editions of the documents indicated below. It is the responsibility of the user of this Standard to determine the acceptance of the referenced standards to the application and requirements of the local jurisdictions.

2.1 Normative references for plastic pipe and related components

ASME A112.4.14-2004. *Manually Operated, Quarter-Turn Shutoff Valves for Use in Plumbing Systems*³