NSF International Standard /
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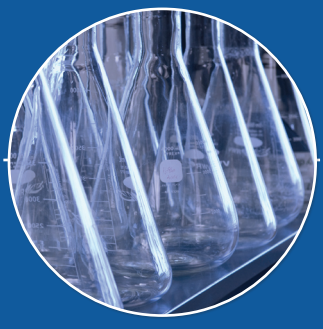
NSF/ANSI 14 - 2016b

Plastics Piping System Components and Related Materials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NSF International Standard/
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for Plastics —

Plastics piping system components and related materials

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Contents

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Foreword[2]

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 78

This revision removed polybutylene fittings from Table 11

Issue 81

Product dimensional requirements in sections 5.1 and 5.4 were clarified.

Issue 82

QC requirements for NSF 358-3 were added to the Standard.

Issue 83

A clarifying row was added to Table 9.36 – Thread Sealants.

The tables in this edition have also been changed to reflect the appropriate section in which it is located:

Previous edition of NSF/ANSI 14	Current edition of NSF/ANSI 14
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Table 2	Table 9.2
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Table 23	Table 9.23
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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. This standard is maintained on a Continuous Maintenance schedule and can be opened for comment at any time. Comments should be sent to Chair, Joint Committee on Plastics at standards@nsf.org, or c/o NSF International, Standards Department, PO Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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. Plastic piping system components which are manufactured to one of the normative references in 2 and do not have integral connections specifically intended for plastic piping systems are not covered by this Standard.

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 shall be 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. The most recent published edition of the document shall be used for undated references.

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]

ASME A112.14.1-2003 (2012). *Backwater Valve* [3]

ASME A112.18.6/CSA B125.6-2009 (R2014). *Flexible Water Connector*[3]

ANSI/ASSE 1049-2009. *Performance Requirements for Individual and Branch Type Air Admittance Valves for Chemical Waster Systems*[4]

ANSI/ASSE 1050-2009. *Performance Requirements for Stack Air Admittance Valves for Sanitary Drainage Systems*[4]

ANSI/ASSE 1051-2009. *Performance Requirements for Individual and Branch Type Air Admittance Valves for Sanitary Drainage Systems*[4]

ANSI/ASSE 1061-2015. *Performance Requirements for Push-Fit Fittings*[4]

ASTM B858-06 (2012). *Standard Test Method for Ammonia Vapor Test for Determining Susceptibility to Stress Corrosion Cracking in Copper Alloys*[5]

ASTM D1785-15. *Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120*[5]

ASTM D2235-04 (2011). *Standard Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings*[5]

ASTM D2239-12a. *Standard Specification for Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter*[5]

ASTM D2241-15. *Standard Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)* [5]

ASTM D2464-15. *Standard Specification for Threaded Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80*[5]

ASTM D2466-15. *Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40*[5]

ASTM D2467-15. *Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80*[5]

ASTM D2513-14e1. *Standard Specification for Polyethylene (PE) Gas Pressure Pipe, Tubing, and Fittings*[5]

ASTM D2564-12. *Standard Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems*[5]

ASTM D2609-15. *Standard Specification for Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe*[5]

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[3] American Society of Mechanical Engineers (ASME). Three Park Avenue, New York, NY 10016-5990 www.asme.org

[4] American Society of Sanitary Engineering (ASSE) for Plumbing and Sanitary Research, 18927 Hickory Creek Drive, Suite 220 Mokena, IL 60448 www.asse-plumbing.org

[5] American Society for Testing Materials (ASTM) 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 <www.astm.org>.

ASTM D2661-14. *Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings*[5]

ASTM D2665-14. *Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings*[5]

ASTM D2672-14. *Standard Specification for Joints for IPS PVC Pipe Using Solvent Cement*[5]

ASTM D2683-14. *Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing*[5]

ASTM D2729-11. *Standard Specification for Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings*[5]

ASTM D2737-12a. *Standard Specification for Polyethylene (PE) Plastic Tubing*[5]

ASTM D2846/D2846M-14. *Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems*[5]

ASTM D2949-10. *Standard Specification for 3.25-in Outside Diameter Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings*[5]

ASTM D2996-15. *Standard Specification for Filament-Wound Fiberglass (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe*[5]

ASTM D2997-15. *Standard Specification for Centrifugally Cast Fiberglass (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe*[5]

ASTM D3034-15e1. *Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings*[5]

ASTM D3035-15. *Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter*[5]

ASTM D3138-04 (2011). *Standard Specification for Solvent Cements for Transition Joints Between Acrylonitrile-Butadiene-Styrene (ABS) and Poly(Vinyl Chloride) (PVC) Non-Pressure Piping Components*[5]

ASTM D3261-15. *Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing*[5]

ASTM D3350-14. *Standard Specification for Polyethylene Plastics Pipe and Fittings Materials*[5]

ASTM D3517-14. *Standard Specification for Fiberglass (Glass-Fiber-Reinforced Thermosetting-Resin) Pressure Pipe*[5]

ASTM D5927-14. *Standard Classification System for and Basis for Thermoplastic Polyester (TPES) Injection and Extrusion Materials Based on ISO Test Methods*[5]

ASTM F409-12. *Standard Specification for Thermoplastic Accessible and Replaceable Plastic Tube and Tubular Fittings*[5]

ASTM F437-15. *Standard Specification for Threaded Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80*[5]

ASTM F438-15. *Standard Specification for Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40*[5]