NSF International Standard /
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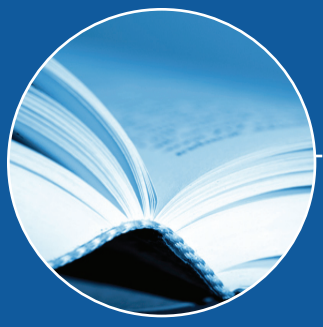
NSF/ANSI 359 - 2018

Valves for Crosslinked Polyethylene (PEX) Water Distribution Tubing Systems



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NSF International Standard/
American National Standard
for Plastics —

Valves for crosslinked polyethylene (PEX) water distribution tubing systems

Standard Developer

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Contents

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Foreword[2]

The purpose of this Standard is to establish minimum physical and performance requirements for valves for crosslinked polyethylene (PEX) water distribution tubing systems. These criteria were established for the protection of public health and the environment.

The physical and performance requirements in this standard apply to in line-valves for use in radiant heating system and hot and cold water cross linked polyethylene (PEX) distribution systems which are compliant with the requirements identified in ASTM F877 for PEX tubing systems. Valves meeting these requirements are rated for a minimum 100 psi at 180º F. This standard is supplemental to ASTM F877 and is intended to identify additional requirements specific for valves. The components covered by this standard are intended for use in residential and commercial, hot and cold, potable water distribution systems as well as sealed central heating, including under-floor heating systems.

This edition of the Standard contains the following revisions:

Issue 3

Language regarding Cv values of valves was revised in 5.4.4.

Issue 4

This revision allows materials not covered in ASTM F877 to be used if they meet the necessary requirements.

This Standard was developed by the NSF Joint Committee on Plastics using the consensus process described by the American National Standards Institute.

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, P.O. Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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NSF/ANSI Standard
for Plastics —

Valves for crosslinked polyethylene (PEX) water distribution tubing systems

1 General

1.1 Purpose

This Standard establishes the minimum physical and performance requirements for in-line valves used with cross-linked polyethylene (PEX) systems. Establishment of these criteria provide for the protection of public health and the environment.

1.2 Scope

This Standard applies to in line-valves for use in radiant heating systems, and hot and cold water cross linked polyethylene (PEX) distribution systems which are compliant with the requirements identified in ASTM F877 for PEX tubing systems. Valves meeting these requirements are rated for a minimum 100 psi (0.69 MPa) at 180º F (82º C). This Standard is supplemental to ASTM F877 and identifies additional requirements specific for valves. This Standard covers components intended for use in residential and commercial, hot and cold, potable water distribution systems; and sealed central heating, including under-floor heating systems. This Standard excludes supply stops and fixture fittings (faucets).

2 Normative references

The following documents contain provisions that, through reference, constitute requirements of this NSF Standard. All documents are subject to revision, and parties are encouraged to investigate the possibility of applying the recent editions of the documents indicated below.

ANSI/ISA-75.01.01 – *Flow Equations for Sizing Control Valves*[3]

ASME A112.14.4 – *Manually Operated, Quarter-Turn Shutoff Valves for Use in Plumbing Systems*[4]

ASME B1.20.1 – *Pipe Threads, General Purpose, Inch*[4]

ASME B16.22 – *Wrought Copper and Copper Alloy Solder Joint Pressure Fittings*[4]

ASTM B858 – *Standard Test Method for Ammonia Vapor Test for Determining Susceptibility to Stress Corrosion Cracking in Copper Alloys*[5]

[3] The International Society of Automation (ISA). 67 Alexander Drive, P.O. Box 12277, Research Triangle Park, NC 77091 <www.isa.org>.

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

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