

# CHAPTER 14

## MANDATORY REFERENCED STANDARDS

**TABLE 14-1**  
**Standards for Materials, Equipment, Joints, and Connections**

**Where more than one standard has been listed for the same material or method, the relevant portions of all such standards shall apply.**

Standard Number	Standard Title	Application
AHAM DW-1-2004	Household Electric Dishwashers	Appliances
AHAM DW-2PR-92	Plumbing Requirements for Household Dishwashers	Appliances
AHAM FWD-1-92	Food Waste Disposers	Appliances
AHAM FWD-2PR-89	Household Food Waste Disposer Units	Appliances
ANSI A13.1-96 (R03)	Scheme for the Identification of Piping Systems	Piping
ANSI A21.10-2003	Ductile-Iron and Gray-Iron Fittings, 3 in. through 48 in. (75 mm through 1,200 mm), for Water and Other Liquids (same as AWWA C110)	Piping, Ferrous
ANSI A21.11-2000	Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings (same as AWWA C111)	Piping, Ferrous
ANSI A21.51-2002	Ductile-Iron Pipe, Centrifugally Cast, for Water (same as AWWA C151)	Piping, Ferrous
ANSI A21.53-2000	Ductile-Iron Compact Fittings, 3 in. through 24 in. (76 mm through 610 mm) and 54 in. through 64 in. (1400 mm through 1600 mm), for Water Service (same as AWWA C153)	Piping, Ferrous
ANSI A118.10-99	Load, Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installations	Fixtures
ANSI A137.1-88	Ceramic Tile	Miscellaneous
ANSI B2.1-90	Pipe Threads (Except Dryseal) (replaced by ASME B1.20.1-98)	Joints
ANSI/CSA LC 3-2000	Appliance Stands and Drain Pans	Miscellaneous
ANSI A117.1-2003	Accessible and Usable Buildings and Facilities	Miscellaneous
ANSI Z4.1-95	Sanitation in Places of Employment (Table 4-1 Note 6)	Miscellaneous
ANSI Z21.5.1a-2003	Gas Clothes Dryers Type 1 Clothes Dryers	Fuel Gas
ANSI Z21.5.2a-2003	Gas Clothes Dryers Type 2 Clothes Dryers	Fuel Gas

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Standard Number	Standard Title	Application
ANSI Z21.10.1-2004	Gas Water Heaters – Volume I – Storage Water Heaters with Input Ratings of 75,000 Btu per Hour or Less (22 kW)	Appliances
ANSI Z21.10.3-2004	Gas Water Heaters – Volume III – Storage, with Input Ratings Above 75,000 Btu per Hour, Circulating and Instantaneous Water Heaters	Appliances
ANSI Z21.12b-94	Draft Hoods	Appliances
ANSI Z21.13-2004	Gas-Fired Low-Pressure Steam and Hot-Water Boilers	Appliances
ANSI Z21.15-97	Manually Operated Gas Valves for Appliances, Appliance Connector, Valves, and Hose End Valves	Valves
ANSI Z21.22-2000	Relief Valves for Hot-Water Supply Systems	Valves
ANSI Z21.24-2001	Connectors for Gas Appliances	Appliances
ANSI Z21.41-2003 CSA 6.9-2003	Quick-Disconnect Devices for Use with Gas Fuel Appliances	Joints
ANSI Z21.47b-2003	Gas-Fired Central Furnaces	Fuel Gas
ANSI Z21.56-2001 CSA 4.7-2001	Gas-Fired Pool Heaters	Swimming Pools and Spas
ANSI Z21.69a-2003 CSA 6.16-2003	Connectors for Movable Gas Appliances	Appliances
ANSI Z21.80-2003 CSA 6.22-M2003	Line Pressure Regulators	Fuel Gas
ANSI Z21.81-98 CSA 6.25-M98	Cylinder Connection Devices	Fuel Gas
ANSI Z21.86-2004 CSA 2.32-2004	Vented Gas-Fired Space-Heating Appliances	Appliances
ANSI Z34.1-93	Certification – Third Party Certification Programs for Products Processes, and Services	Certification
ANSI Z83.11-2002	Gas Food Service Equipment	Fuel Gas
ANSI Z124.1-95	Plastic Bathtub Units	Fixtures
ANSI Z124.2-95	Plastic Shower Units	Fixtures
ANSI Z124.3-95	Plastic Lavatories	Fixtures
ANSI Z124.4-96	Plastic Water Closet Bowls and Tanks	Fixtures
ANSI Z124.5-97	Plastic Toilet (Water Closet) Seats	Fixtures

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Standard Number	Standard Title	Application
ANSI Z124.6-97	Plastic Sinks	Fixtures
ANSI Z124.7-97	Prefabricated Plastic Spa Shells	Fixtures
ANSI Z124.8-90	Plastic Bathtub Liners	Fixtures
IAPMO/ANSI Z124.9-2004	Plastic Urinal Fixtures (Note 1)	Fixtures
ANSI Z223.1-2002	National Fuel Gas Code (same as NFPA 54)	Fuel Gas
ISEA Z358.1-2004	Emergency Eyewash and Shower Equipment	Miscellaneous
ARI 1010-2002	Drinking Fountains and Self-Contained, Mechanically Refrigerated Drinking Water Coolers	Appliances
ASCE 25-99	Earthquake Actuated Automatic Gas Shutoff Devices	Fuel Gas
ASHRAE 90.1-2004	Energy Standard for Buildings Except Low-Rise Residential Buildings	Miscellaneous
ASME A112.1.2-2004	Air Gaps in Plumbing Systems	Fittings
ASME A112.1.3-2000	Air Gap Fittings for Use with Plumbing Fixtures, Appliances, and Appurtenances	Fixtures
ASME A112.3.1-93	Stainless Steel Drainage Systems for Sanitary, Storm, and Chemical Applications, Above and Below Ground (Note 1)	Piping, Ferrous
ASME A112.3.4-2000 (R04)	Macerating Toilet Systems and Related Components	Fixtures
ASME A112.4.1-93(R02)	Water Heater Relief Valve Drain Tubes	Appliances
ASME A112.4.2-2003	Water Closet Personal Hygiene Devices	Fixtures
ASME A112.4.3-99 (R04)	Plastic Fittings for Connecting Water Closets to the Sanitary Drainage System	Piping
ASME A112.4.7-2002	Point of Use and Branch Water Submetering Systems	Miscellaneous
ASME A112.6.1M-97 (R02)	Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use	Fixtures
ASME A112.6.2-2000 (R04)	Framing-Affixed Supports for Off-the-Floor Plumbing Fixtures	Fixtures
ASME A112.6.3-2001	Floor and Trench Drains	DWV Components
ASME A112.6.4-2003	Roof, Deck, and Balcony Drains	DWV Components
ASME A112.6.7-2001	Enameled and Epoxy Coated Cast Iron and PVC Plastic Sanitary Floor Sinks	Fixtures

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Standard Number	Standard Title	Application
ASME A112.14.1-2003	Backwater Valves	Valves
ASME A112.14.3-2000	Grease Interceptors	Fixtures
ASME A112.14.4-2001	Grease Removal Devices	Fixtures
ASME A112.18.1-2005/ CSA B125.1-05	Plumbing Supply Fittings	Fixtures
ASME A112.18.2-2005/ CSA B125.2-05	Plumbing Waste Fittings	Fittings
ASME A112.18.3-2003	Backflow Protection Devices and Systems in Plumbing Fixtures	Kitchen, Lavatory, and Shower Fittings with
ASME A112.18.6-2003	Flexible Water Connectors	Piping
ASME A112.18.7-99 (R04)	Deck Mounted Bath/Shower Transfer Valves with Integral Backflow Protection	Valves
ASME A112.19.1M-94 (R04)	Enameled Cast-Iron Plumbing Fixtures (Supplement 1-1998)	Fixtures
ASME A112.19.2M-2003	Vitreous China Plumbing Fixtures and Hydraulic Fixtures Requirements for Water Closets and Urinals	Fixtures
ASME A112.19.3M-01(R04)	Stainless Steel Plumbing Fixtures (Designed for Residential Use)	Fixtures
ASME A112.19.4M-94(R04)	Porcelain-Enameled Formed Steel Plumbing Fixtures (Supplement 1-1998)	Fixtures
ASME A112.19.5-99	Trim for Water-Closet Bowls, Tanks, and Urinals	Fixtures
ASME A112.19.7M-95	Whirlpool Bathtub Appliances	Fixtures
ASME A112.19.8M-87(R96)	Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Whirlpool Bathtub Appliances	Swimming Pools and Spas
ASME A112.19.9M-91 (R02)	Non-Vitreous Ceramic Plumbing Fixtures	Fixtures
ASME A112.19.10-2003	Dual Flush Devices for Water Closets	Fixtures
ASME A112.19.12-2000	Wall Mounted and Pedestal Mounted Adjustable and Pivoting Lavatory and Sink Carrier System	Fixtures
ASME A112.19.13-2002	Electrohydraulic Water Closets	Fixtures
ASME A112.19.14-2001	Six-Liter Water Closets Equipped with a Dual Flashing Device	Fixtures
ASME A112.19.15-2001	Bathtub/Whirlpool Bathtubs with Pressure Sealed Doors	Fixtures

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Standard Number	Standard Title	Application
ASME A112.20.1-2004	Qualification of Installers of High Purity Systems	Swimming Pools & Spas
ASME A112.20.2-2004	Qualification of Installers of Firestop Systems and Devices for Piping Systems	Certification
ASME A112.21.3M-85 (R01)	Hydrants for Utility and Maintenance Use (Note 1)	Valves
ASME A112.36.2M-91 (R02)	Cleanouts (Note 1)	DWV Components
ASME B1.20.1-83 (R01)	Pipe Threads, General Purpose, Inch	Joints
ASME B1.20.3-76 (R03)	Dryseal Pipe Threads, Inch	Joints
ASME B16.1-98	Cast-Iron Pipe Flanges and Flanged Fittings, Classes 25, 125, 250, and 800	Piping, Ferrous
ASME B16.3-98	Malleable-Iron Threaded Fittings	Piping, Ferrous
ASME B16.4-98	Gray Iron Threaded Fittings (Includes Revision Services)	Piping, Ferrous
ASME B16.5-2003	Pipe Flanges and Flanged Fittings	Joints
ASME B16.12-98	Iron Threaded Drainage Fittings (Note 1)	Piping, Ferrous
ASME B16.15-85 (R04)	Cast Bronze Threaded Fittings, Classes 125 and 250	Piping, Copper Alloy
ASME B16.18-2001	Cast Copper Alloy Solder Joint Pressure Fittings (Note 1)	Piping, Copper Alloy
ASME B16.21-92	Nonmetallic Flat Gaskets for Pipe Flanges	Joints
ASME B16.22-2001	Wrought Copper and Copper Alloy Solder Joint Pressure Fittings Alloy	Piping, Copper Alloy
ASME B16.23-2002	Cast Copper Alloy Solder Joint Drainage Fittings – DWV	Piping, Copper Alloy
ASME B16.24-2001	Cast Copper Alloy Pipe Flanges and Flanged Fittings	Piping, Copper Alloy
ASME B16.26-88	Cast Copper Alloy Fittings for Flared Copper Tubes	Piping, Copper Alloy
ASME B16.29-2001	Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings–DWV Alloy (Note 1)	Piping, Copper Alloy
ASME B16.33-2002	Manually Operated Metallic Gas Valves for Use in Gas Piping Systems up to 125 psig	Valves
ASME B16.34-96	Valves – Flanged, Threaded, and Welding End	Valves
ASME B16.39-98	Pipe Unions, Malleable Iron Threaded (Includes Revision Services)	Piping, Ferrous
ASME B16.40- 2002	Manually Operated Thermoplastic Gas Shutoff and Valves in Gas Distribution Systems	Fuel Gas
ASME B16.47-96	Large Diameter Steel Flanges	Piping, Ferrous

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Standard Number	Standard Title	Application
ASME B16.50-2001	Wrought Copper and Copper Alloy Braze-Joint Pressure Fittings	Piping, Copper Alloy
ASME B31.1-2004	Power Piping	Piping
ASME B36.10M-2004	Welded and Seamless Wrought Steel Pipe	Piping, Ferrous
ASME B36.19-85(R94)	Stainless Steel	Piping, Ferrous
ASME Section IV	Rules for Construction of Heating Boilers	Miscellaneous
ASME Section VIII	Rules for Construction of Pressure Vessels	Miscellaneous
ASME Section IX	Welding and Brazing Procedures, Welders, Brazers, and Welding and Brazing Operators	Certification
ASSE 1001-2002	Atmospheric-Type Vacuum Breakers	Backflow Protection
ASSE 1002-99	Anti-Siphon Fill Valves (Ballcocks) for Gravity Water Closet Flush Tank	Backflow Protection
ASSE 1003-2001	Water Pressure Reducing Valves	Valves
ASSE 1004-90	Backflow Prevention Requirements for Commercial Dishwashing Machines	Backflow Protection
ASSE 1005-99	Water Heater Drain Valves	Valves
ASSE 1006-86	Residential Use Dishwashers	Appliances
ASSE 1007-86	Home Laundry Equipment	Appliances
ASSE 1008-86	Household Food Waste Disposer Units	Appliances
ASSE 1009-90	Commercial Food Waste Grinder Units	Appliances
ASSE 1010-2004	Water Hammer Arresters	Piping
ASSE 1011-2004	Hose-Connection Vacuum Breakers	Backflow Protection
ASSE 1012-2002	Backflow Prevention with Intermediate Atmospheric Vent	Backflow Protection
ASSE 1013-2005	Reduced Pressure Principle Backflow Preventers and Reduced Pressure Fire Protection Principle Backflow Preventers	Backflow Protection
ASSE 1014-2005	Hand-Held Showers	Fixtures
ASSE 1015-2005	Double-Check Backflow Prevention Assembly and Double Check Fire Protection Backflow Prevention Assemblies	Backflow Protection
ASSE 1016-2005	Valves for Individual Showers and Tub/Shower Combinations	Valves
ASSE 1017-2003	Temperature Actuated Mixing Valves for Hot Water Distribution Systems	Valves

Standard Number	Standard Title	Application
ASSE 1018-2001	Trap Seal Primer Valves, Potable Water Supplied	Valves
ASSE 1019-2004	Vacuum Breaker Wall Hydrant, Freeze-Resistant Automatic Draining Type	Backflow Protection
ASSE 1020-2004	Pressure Vacuum Breaker Assembly	Backflow Protection
ASSE 1021-2001	Drains Air Gaps for Domestic Dishwasher Applications	Backflow Protection
ASSE 1022-2003	Backflow Prevention for Beverage Dispensing Equipment	Backflow Protection
ASSE 1023-79	Hot Water Dispensers, Household Storage Type, Electrical	Appliances
ASSE 1024-2003	Dual Check Valve Backflow Preventers	Backflow Prevention
ASSE 1025-78	Diverter for Plumbing Faucets with Hose Spray, Anti-Siphon Type, Residential Applications	Valves
ASSE 1032-2004	Dual Check Valve Type Backflow Preventers for Carbonated Beverage Dispensers – Post Mix Types	Backflow Protection
ASSE 1035-2002	Laboratory Faucet Backflow Preventer	Backflow Protection
ASSE 1037-90	Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures	Backflow Protection
ASSE 1044-2001	Trap Seal Primer Devices-Drainage Types and Electronic Design Types	DWV Components
ASSE 1047-2005	Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies	Backflow Protection
ASSE 1048-2005	Double Check Detector Fire Protection Backflow Prevention Assemblies	Backflow Protection
ASSE 1052-2004	Hose Connection Backflow Preventers	Backflow Protection
ASSE 1055-97	Chemical Dispensing Systems	Backflow Protection
ASSE 1056-2001	Spill Resistant Vacuum Breakers	Backflow Protection
ASSE 1062-97	Temperature Actuated Flow Reduction (TAFR) Valves for Individual Fixture Fittings	Valves
ASSE 1066-97	Individual Pressure Balancing In-Line Valves for Individual Fixture Fittings (Note 9)	Valves
ASSE 1069-2005	Automatic Temperature Control Mixing Valves	Valves
ASSE 1070-2004	Water Temperature Limiting Devices	Valves
ASSE Series 5000-2004	Professional Qualification Standard for Backflow Prevention Assembly Testers, Repairers, and Surveyors	Backflow Protection

Standard Number	Standard Title	Application
ASSE 6000-2004	Medical Gas Systems Installers, Inspectors, and Verifiers, Maintenance Personnel and Instructors	Certification
ASTM A 47-99 (R04)	Ferritic Malleable Iron Castings	Piping, Ferrous
ASTM A 48-2003	Gray Iron Castings	Piping, Ferrous
ASTM A 53-2004a	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded, and Seamless	Piping, Ferrous
ASTM A 74-2004a	Cast-Iron Soil Pipe and Fittings (Note 1)	Piping, Ferrous
ASTM A 126-2004	Gray Iron Castings for Valves, Flanges, and Pipe Fittings	Piping, Ferrous
ASTM A 197M-2000	Cupola Malleable Iron (Metric)	Piping, Ferrous
ASTM A 269-2004	Seamless and Welded Austenitic Stainless Steel Tubing for General Service	Piping, Ferrous
ASTM A 312-2004b	Seamless and Heavy Cold Worked Welded Austenitic Stainless Steel Pipes	Piping, Ferrous
ASTM A 377-2003	Ductile-Iron Pressure Pipe	Piping, Ferrous
ASTM A 479-2005	Stainless Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels	Piping, Ferrous
ASTM A 518-99(R03)	Corrosion-Resistant High-Silicon Iron Castings	Piping, Ferrous
ASTM A 536-84(R04)	Ductile Iron Castings	Piping, Ferrous
ASTM A 653M-2004a	Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process	Piping, Ferrous
ASTM A 733-2003	Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples	Piping, Ferrous
ASTM A 861-2004	High-Silicon Iron Pipe and Fittings (Note 1)	Piping, Ferrous
ASTM A 888-2004a	Hubless Cast-Iron Soil Pipe and Fittings for Sanitary and Storm Drain Waste and Vent Piping Applications	Piping, Ferrous
ASTM B 29-2003	Refined Lead	Joints
ASTM B 32-2004	Solder Metal (Note 4)	Joints
ASTM B 42-2002 <sup>1</sup>	Seamless Copper Pipe, Standard Sizes	Piping, Copper Alloy
ASTM B 43-98(R04)	Seamless Red Brass Pipe, Standard Sizes	Piping, Copper Alloy

Standard Number	Standard Title	Application
ASTM B 75-2002	Seamless Copper Tube	Piping, Copper Alloy
ASTM B 88-2003	Seamless Copper Water Tube	Piping, Copper Alloy
ASTM B 135-2002	Seamless Brass Tube (Metric)	Piping, Copper Alloy
ASTM B 152-2000	Copper Sheet, Strip, Plate, and Rolled Bar	Miscellaneous
ASTM B 251-2002 <sup>e1</sup>	General Requirements for Wrought Seamless Copper Copper-Alloy Tube	Piping, Copper Alloy
ASTM B 280-2003	Seamless Copper Tube for Air Conditioning and Refrigeration Field Service	Piping, Copper Alloy
ASTM B 302-2002	Threadless Copper Pipe, Standard Sizes	Piping, Copper Alloy
ASTM B 306-2002	Copper Drainage Tube (DWV)	Piping, Copper Alloy
ASTM B 370-2003	Copper Sheet and Strip for Building Construction	Miscellaneous
ASTM B 447-2002	Welded Copper Tube	Piping, Copper Alloy
ASTM B 584-2004	Copper Alloy Sand Casting for General Applications (Note 5)	Piping, Copper Alloy
ASTM B 587-97 <sup>e1</sup> (R03)	Welded Brass Tube	Piping, Copper Alloy
→ ASTM B 687-99	Brass, Copper, and Chromium-Plated Pipe Nipples	Piping, Copper Alloy
→ ASTM B 813-2000 <sup>e1</sup>	Liquid and Paste Fluxes for Soldering Applications of Copper and Copper Alloy Tube	Joints
ASTM B 819-2000	Seamless Copper Tube for Medical Gas Systems	Piping, Copper Alloy
ASTM B 828-2002	Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings	Joints
ASTM C 14-2003	Concrete Sewer, Storm Drain, and Culvert Pipe	Piping, Non-Metallic
ASTM C 296-2000	Asbestos-Cement Pressure Pipe	Piping, Non-Metallic
ASTM C 412-2003	Concrete Drain Tile	Piping, Non-Metallic
ASTM C 425-2004	Compression Joints for Vitrified Clay Pipe and Fittings	Joints
ASTM C 428-97(R02) <sup>e1</sup>	Asbestos-Cement Nonpressure Sewer Pipe (Notes 6 and 7)	Piping, Non-Metallic
ASTM C 443-2005	Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets	Joints
ASTM C 478-2003a	Precast Reinforced Concrete Manhole Sections	Miscellaneous
ASTM C 564-2003a	Rubber Gaskets for Cast-Iron Soil Pipe and Fittings	Joints

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Standard Number	Standard Title	Application
ASTM C 700-2002	Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated	Piping, Non-Metallic
ASTM C 1053-2000	Borosilicate Glass Pipe and Fittings for Drain, Waste, and Vent (DWV) Applications (Note 1)	Piping, Non-Metallic
ASTM C 1173-2004	Flexible Transition Couplings for Underground Piping Systems	Joints
ASTM C 1277-2004	Shielded Couplings Joining Hubless Cast-Iron Soil Pipe and Fittings	Piping, Ferrous
ASTM C 1440-2003	Thermoplastic Elastomeric (TPE) Gasket Materials for Drain, Waste, and Vent (DWV), Sewer, Sanitary and Storm Plumbing Systems	Piping, Plastic
ASTM C 1460-2004	Shielded Transition Couplings for Use with Dissimilar DWV Pipe and Fittings Above Ground	Piping, Plastic
ASTM C 1461-2002	Mechanical Couplings Using Thermoplastic Elastomeric (TPE) Gaskets for Joining Drain, Waste, and Vent (DWV); Sewer; Sanitary; and Storm Plumbing Systems for Above and Below Ground	Piping, Plastic
ASTM C 1540-2004	Heavy Duty Shielded Couplings Joining Hubless Cast Iron Soil Pipe and Fittings	Joints
ASTM D 1527-99 <sup>e1</sup>	Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe, Sch. 40 and 80	Piping, Plastic
ASTM D 1784-2003	Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds	Piping, Plastic
ASTM D 1785-2004a	Poly(Vinyl Chloride) (PVC) Plastic Pipe, Sch. 40, 80, and 120	Piping, Plastic
ASTM D 1869-95(R00)	Rubber O-rings for Asbestos-Cement Pipe	Joints
ASTM D 2104-2003	Polyethylene (PE) Plastic Pipe, Sch. 40	Piping, Plastic
ASTM D 2235-2004	Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings	Joints
ASTM D 2239-2003	Polyethylene (PE) Plastic Pipe, (SDR-PR) Based on Controlled Inside Diameter	Piping, Plastic
ASTM D 2241-2004b	Poly(Vinyl Chloride)(PVC) Pressure-Rated Pipe (SDR Series)	Piping, Plastic
ASTM D 2282-99 <sup>e1</sup>	Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe (SDR-PR)	Piping, Plastic
ASTM D 2321-2000	Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications	Piping, Plastic

Standard Number	Standard Title	Application
ASTM D 2447-2003	Polyethylene (PE) Plastic Pipe, Sch. 40 and 80 (Based on Controlled Outside Diameter)	Piping, Plastic
ASTM D 2464-99 <sup>e1</sup>	Threaded Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Sch. 80 (Note 1)	Piping, Plastic
ASTM D 2466-2002	Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Sch. 40 (Note 1)	Piping, Plastic
ASTM D 2467-2004 <sup>e1</sup>	Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Sch, 80 (Note 1)	Piping, Plastic
ASTM D 2513-2004a	Thermoplastic Gas Pressure Pipe Tubing and Fittings (Note 1)	Piping, Plastic
ASTM D 2517-2000 <sup>e1</sup>	Reinforced Epoxy Resin Gas Pressure Pipe and Fittings	Piping, Plastic
ASTM D 2564-2004	Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems	Joints
ASTM D 2609-2002	Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe (Note 1)	Piping, Plastic
ASTM D 2657-2003	Practice for Heating Fusion Joining of Polyolefin Pipe Fittings (Note 1)	Joints
ASTM D 2661-2002	Acrylonitrile-Butadiene-Styrene (ABS) Sch. 40 Plastic Drain, Waste, and Vent Pipe and Fittings (Note 1)	Piping, Plastic
ASTM D 2665-2004a	Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings (Note 1)	Piping, Plastic
ASTM D 2672-96a (R03)	Joints for IPS PVC Pipe Using Solvent Cement	Joints
ASTM D 2680-2001	Acrylonitrile-Butadiene-Styrene (ABS) and Poly(Vinyl Chloride) (PVC) Composite Sewer Piping	Piping, Plastic
ASTM D 2729-2003	Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings (Note 1)	Piping, Plastic
ASTM D 2737-2003	Polyethylene (PE) Plastic Tubing	Piping, Plastic
ASTM D 2751-96a	Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings (Note 1)	Piping, Plastic
ASTM D 2846-99 <sup>e1</sup>	Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems	Piping, Plastic
ASTM D 2855-96(R02)	Making Solvent-Cemented Joints with Poly(Vinyl Chloride) (PVC) Pipe and Fittings	Joints
ASTM D 2996-2001	Filament-Wound Fiberglass (Glass-Fiber-Reinforced Thermosetting Resin) Pipe	Piping, Plastic
ASTM D 3034-2004a	Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings	Piping, Plastic
ASTM D 3035- 2003a	Polyethylene(PE) Plastic Pipe (DR-PR) (Based on Controlled Outside Diameter)	Piping, Plastic

Standard Number	Standard Title	Application
ASTM D 3122-95(R02)	Solvent Cements for Styrene-Rubber (SR) Plastic Pipe and Fittings	Joints
ASTM D 3138-2004	Solvent Cements for Transition Joints, Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Non-Pressure Piping Components	Joints
ASTM D 3139-98	Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals	Joints
→ → ASTM D 3212-96a (R03) <sup>e1</sup>	Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals	Joints
ASTM D 3311-2002 <sup>e1</sup>	Drain, Waste, and Vent (DWV) Plastic Fittings Patterns (Note 1)	Piping, Plastic
ASTM D 3965-2004	Rigid Acrylonitrile-Butadiene-Styrene (ABS) Materials for Pipe and Fittings	Piping, Plastic
ASTM D 4068-2001	Chlorinated Polyethylene (CPE) Sheeting for Concealed Water-Containment Membrane	Fixtures
ASTM D 4101-2004a	Propylene Plastic Injection and Extrusion Materials	Miscellaneous
ASTM D 4551-96 (R01)	Poly(Vinyl Chloride) (PVC) Plastic Flexible Concealed Water-Containment Membrane	Fixtures
ASTM D 6104-97 (R03)	Determining the Performance of Oil/Water Separators Subjected to Surface Run-Off	Fixtures
ASTM E 84-2004	Surface Burning Characteristics of Building Materials	Miscellaneous
ASTM E 119-2000a	Fire Tests of Building Construction and Materials	Miscellaneous
ASTM E 814- 2002	Fire Tests of Through-Penetration Fire Stops	Miscellaneous
ASTM F 402-93(R99)	Safe Handling of Solvent Cements, Primers, and Cleaners Used for Joining Thermoplastic Pipe and Fittings	Joints
ASTM F 405-97	Corrugated Polyethylene (PE) Tubing and Fittings	Piping, Plastic
ASTM F 409-2002	Thermoplastic Accessible and Replaceable Plastic Tube and Tubular Fittings (Note 1)	Piping, Plastic
ASTM F 437-99	Threaded Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Sch. 80	Piping, Plastic
ASTM F 438-2004	Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Sch. 40	Piping, Plastic
ASTM F 439-2002 <sup>e1</sup>	Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Sch. 80	Piping, Plastic

Standard Number	Standard Title	Application
ASTM F 441-2002	Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe, Sch. 40 and 80	Piping, Plastic
ASTM F 442-99	Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR)	Piping, Plastic
ASTM F 480-2002	Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR) Schedule 40 and Schedule 80	Piping, Plastic
ASTM F 493-2004	Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings	Joints
ASTM F 628-2001	Acrylonitrile-Butadiene-Styrene (ABS) Sch. 40 Plastic Drain, Waste, and Vent Pipe with a Cellular Core, (Note 1)	Piping, Plastic
ASTM F 656-2002	Primers for Use in Solvent Cement Joints of Poly(Vinyl Chloride) (PVC) Plastic Pipe and Fittings	Joints
ASTM F 667-97	Large Diameter Corrugated Polyethylene Tubing and Fittings	Piping, Plastic
ASTM F 714-2003	Polyethylene (PE) Plastic Pipe (SDR-PR) (Based on Outside Diameter)	Piping, Plastic
ASTM F 789-2003	Type PS-46 and Type PS-115 Poly(Vinyl Chloride) (PVC) Plastic Gravity Flow Sewer Pipe and Fittings (Note 1)	Piping, Plastic
ASTM F 794-2003	Poly(Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter	Piping, Plastic
ASTM F 810-2001	Smoothwall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields	Piping, Plastic
ASTM F 876-2004a	Crosslinked Polyethylene (PEX) Tubing	Piping, Plastic
ASTM F 877-2002a	Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems	Piping, Plastic
ASTM F 891-2004	Coextruded Poly(Vinyl Chloride) (PVC) Plastic Pipe with a Cellular Core	Piping, Plastic
ASTM F 894-98a	Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe	Piping, Plastic
ASTM F 949-2003	Poly(Vinyl Chloride) (PVC) Corrugated Sewer Pipe with a Smooth Interior and Fittings	Piping, Plastic
ASTM F 1216-2003	Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube	Piping, Plastic
ASTM F 1281-2003	Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Pressure Pipe	Piping, Plastic
ASTM F 1282-2003	Polyethylene/Aluminum/Polyethylene (PE-AL-PE) Composite Pressure Pipe	Piping, Plastic

Standard Number	Standard Title	Application
ASTM F 1412-2001 <sup>e1</sup>	Polyolefin Pipe and Fittings for Corrosive Waste Drainage Systems	Piping, Plastic
ASTM F 1476-2001	Gasketed Mechanical Couplings for Use in Piping Application	Joints
ASTM F 1673-2004	Polyvinylidene Fluoride (PVDF) Corrosive Waste Drainage Systems	Piping, Plastic
ASTM F 1743-96(R03)	Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP)	Piping, Plastic
ASTM F 1807-2004	Metal Insert Fittings with Copper Crimp Ring for SDR 9 Crosslinked Polyethylene (PEX) Tubing	Piping, Plastic
ASTM F 1866-98	Poly(Vinyl Chloride) (PVC) Drainage and DWV Fabricated Fittings, Schedule 40	Piping, Plastic
ASTM F 1924-2001 <sup>e1</sup>	Plastic Mechanical Fitting for Use on Outside Diameter Controlled Polyethylene Gas Distribution Pipe and Tubing	Piping, Plastic
ASTM F 1948-99a <sup>e1</sup>	Metallic Mechanical Fittings for Use on Outside Diameter Controlled Thermoplastic Gas Distribution Pipe and Tubing	Piping, Plastic
ASTM F 1960-2003	Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-Linked Polyethylene (PEX) Tubing	Piping, Plastic
ASTM F 1961-2002a	Metal Cold Flare Compression Fittings with Disc Springs for Crosslinked Polyethylene (PEX) Tubing	Piping, Plastic
ASTM F 1970-2001	Special Engineered Fittings or Appurtenances for Use in Poly (Vinyl Chloride) (PVC) or Chlorinated Poly(Vinyl Chloride) (CPVC) Systems	Piping, Plastic
ASTM F 1973-2002	Factory Assembled Anodeless Riser and Transition Fitting in Polyethylene (PE) Fuel Gas Distribution Systems	Piping, Plastic
ASTM F 1974-2004	Metal Insert Fittings for Polyethylene/Aluminum/Polyethylene and Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Composite Pressure Pipe	Piping, Plastic
ASTM F 2080-2004	Cold-Expansion Fittings With Metal Compression Sleeves for Cross-Linked Polyethylene (PEX) Pipe	Piping, Plastic
ASTM F 2098-2001	Stainless Steel Clamps for Securing SDR9 Cross-Linked Polyethylene (PEX) Tubing to Metal Insert Fittings	Joints
ASTM F 2159-2003	Plastic Insert Fittings Utilizing a Copper Ring for SDR 9 Cross-Linked Polyethylene (PEX) Tubing	Joints
ASTM F 2165-2002	Flexible Pre-Insulated Piping	Piping, Plastic

Standard Number	Standard Title	Application
ASTM F 2262-2004	Cross-Linked Polyethylene/Aluminum/Cross-Linked Polyethylene Tubing OD Controlled SDR 9	Piping, Plastic
ASTM F2434-2004	Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Cross-Linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX) Tubing	Piping, Plastic
AWS A5.8-2004	Filler Metals for Brazing and Braze Welding	Joints
AWS B2.2-91	Brazing Procedure and Performance Qualification	Certification
AWWA C110-2003	Ductile-Iron and Gray-Iron Fittings, 3 in. through 48 in. (75 mm through 1200 mm), for Water and Other Liquids (same as ANSI A21.10-98)	Piping, Ferrous
AWWA C111-2000	Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings (same as ANSI A21.11-00)	Piping, Ferrous
AWWA C151-2002	Ductile-Iron Pipe, Centrifugally Cast, for Water (same as ANSI A21.51-91)	Piping, Ferrous
AWWA C153-2000	Ductile-Iron Compact Fittings, 3 in. through 24 in. (76 mm through 610 mm) and 54 in. through 64 in. (1400 mm through 1600 mm), for Water Service (same as ANSI A21.53-00)	Piping, Ferrous
AWWA C203-2002	Coal-Tar Protective Coatings and Linings for Steel Water Pipelines – Enameled and Tape – Hot Applied	Piping
AWWA C213-2001	Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines	Piping, Ferrous
AWWA C215-2004	Extruded Polyolefin Coatings for the Exterior of Steel Water Pipelines	Piping, Ferrous
AWWA C400-2003	Asbestos-Cement Distribution Pipe, 4 in. through 16 in. (100 mm through 400 mm) for Water Distribution Systems	Piping, Non-Metallic
AWWA C500-2002	Gate Valves for Water and Sewerage Systems Valves	Valves
AWWA C504-2000	Rubber-Seated Butterfly Valves	Valves
AWWA C507-99	Ball Valves, 6 in. through 48 in. (150 mm through 1200 mm)	Valves
AWWA C510-97	Double Check Valve Backflow-Prevention Assembly	Backflow Protection
AWWA C511-97	Reduced-Pressure Principle Backflow-Prevention Assemblies	Backflow Protection
AWWA C606-2004	Grooved- and Shouldered-Type Joints	Joints

Table 14-1

## UNIFORM PLUMBING CODE

Standard Number	Standard Title	Application
AWWA C900-97	Poly (Vinyl Chloride)(PVC) Pressure Pipe, 4 in. through 12 in., for Water Distribution	Piping, Plastic
AWWA C901-2002	Polyethylene (PE) Pressure Pipe and Tubing, 1/2 in. (13 mm) through 3 in. (76 mm), for Water Service	Piping, Plastic
AWWA C907-91	Poly (Vinyl Chloride) (PVC) Pressure Fittings for Water - 4 in. Through 8 in. (100 mm through 200 mm)	Piping, Plastic
CGA V-1	Compressed Gas Association Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connection	Valves
CGA S-1.3	Pressure Relief Device Standards-Part 3-Stationary Storage Containers for Compressed Gases	Fuel Gas
CISPI 301-2004a	Hubless Cast-Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications (Note 1)	Piping, Ferrous
CISPI 310-2004	Couplings for Use in Connection with Hubless Cast-Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications	Joints
CSA 3-92	U.S. Requirements for Excess Flow Valves	Valves
CSA A257-2003	Concrete Pipe and Manhole Sections	Piping
CSA B45-2002	Plumbing Fixtures	Fixtures
CSA B45.1-2002	Ceramic Plumbing Fixtures	Fixtures
CSA B45.2-2002	Enameled Cast-Iron Plumbing Fixtures	Fixtures
CSA B45.3-2002	Porcelain-Enameled Steel Plumbing Fixtures	Fixtures
CSA B45.4-2002	Stainless Steel Plumbing Fixtures	Fixtures
CSA B45.5-2002	Plastic Plumbing Fixtures	Fixtures
CSA B45.9-2002	Macerating Systems and Related Components	DWV Components
CSA B45.10-2001	Hydromassage Bathtubs	Fixtures
CSA B45.11-2004	Glass Lavatories	Fixtures
CSA B64-2001	Backflow Preventers and Vacuum Breakers	Backflow Protection
CSA B64.1.1-2001	Vacuum Breaker, Atmospheric Type (AVB)	Backflow Protection
CSA B64.1.2-2001	Vacuum Breaker, Pressure Type (PVB)	Backflow Protection
CSA B64.2-2001	Vacuum Breaker, Hose Connection Type (HCVB)	Backflow Protection

Standard Number	Standard Title	Application
CSA B64.2.1.1-2001	Vacuum Breaker, Hose Connection Type with Automatic Drainage Feature (HCVB)	Backflow Protection
CSA B64.4-2001	Backflow Preventers, Reduced Pressure Principle Type (RP)	Backflow Protection
CSA B64.4.1-2001	Backflow Preventers, Reduced Pressure Principle Type for Fire System (RPF)	Backflow Protection
CSA B64.5-2001	Backflow Preventers, Double Check Valve Type (DVCA)	Backflow Protection
CSA B64.5.1-2001	Backflow Preventers, Double Check Valve Type for Fire System (DVCAF)	Backflow Protection
CSA B64.7-2001	Vacuum Preventers, Laboratory Faucet Type (LFVB)	Backflow Protection
CSA B125-2001	Plumbing Fittings	Valves
CSA B137.1-2002	Polyethylene Pipe, Tubing, and Fittings for Cold Water Pressure Services	Piping, Plastic
CSA B137.5-2002	Crosslinked Polyethylene (PEX) Tubing Systems for Pressure Applications	Piping, Plastic
CSA B137.9-2002	Polyethylene/Aluminum/Polyethylene Composite Pressure-Pipe Systems	Piping, Plastic
CSA B137.10-2002	Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Composite Pressure-Pipe Systems	Piping, Plastic
CSA B181.3-2002	Polyolefin Laboratory Drainage Systems	Piping/Plastic
CSA B242-80(R04)	Groove and Shoulder Type Mechanical Pipe Couplings	Fittings
CSA B272-93 (R00)	Prefabricated Self-Sealing Roof Vent Flashing	Fittings
CSA B356-2000	Water Pressure Reducing Valves for Domestic Water Supply Systems	Valves
CSA G401-2001	Corrugated Steel Pipe Products	Fittings
→ IAPMO PS 1-2004	Prefabricated Septic Tanks	DWV Components
→ IAPMO PS 4-2004	Drains for Prefabricated and Precast Showers	Fixtures
→ IAPMO PS 14-2002	Flexible Metallic Field Fabricated Water Connectors	Piping
IAPMO PS 16-2004	Subdrains for Built-Up Shower Pans	Fixtures
IAPMO PS 23-2004	Dishwasher Drain Air Gaps	Backflow Protection
→ IAPMO PS 25-2002	Metallic Fittings for Joining Polyethylene Pipe for Water Service and Yard Piping	Joints

Table 14-1

## UNIFORM PLUMBING CODE

Standard Number	Standard Title	Application
IAPMO PS 33-2004	Flexible PVC Hose for Pools, Hot Tubs, Spas and Jetted Bathtub	Piping, Plastic
IAPMO PS 34-2003	Encasement Sleeve for Potable Water Pipe and Tubing	Piping
IAPMO PS 36-90	Lead-Free Sealing Compounds for Threaded Joints	Joints
IAPMO PS 37-90	Black Plastic PVC or PE Pressure-Sensitive Corrosion Preventive Tape	Piping
→ IAPMO PS 40-2001	Anodeless Transition Riser for Use with PVC Gas Yard Piping	Fuel Gas
→ IAPMO PS 42-96	Pipe Alignment and Secondary Support Systems	Piping
→ IAPMO PS 43-91	Cushioned Bathtubs and Whirlpool Bathtub Appliances	Fixtures
→ IAPMO PS 46-2004	Non-Integral Tile Flange Kits	Miscellaneous
→ IAPMO PS 50-2003	Flush Valves with Dual Flush Devices For Water Closets	Fixtures
IAPMO PS 51-98	Plastic and Metallic Expansion Joints	Joints
IAPMO PS 52-2004b	Sumps and Sewage Ejector Tanks	DWV Components
IAPMO PS 53-92	Grooved Mechanical Pipe Couplings and Grooved End Fittings	Joints
IAPMO PS 54-2003a	Metallic and Plastic Utility Boxes	Miscellaneous
IAPMO PS 55-92	Bathwaste Strainer Drains	Fixtures
IAPMO PS 57-2002	PVC Hydraulically Actuated Diaphragm Type Water Control Valves	Valves
→ IAPMO PS 59-92	Septic Effluent and Waste Water Diverter Valves	DWV Components
IAPMO PS 60-96	Sewage Holding Tank Containing Sewage Ejector Pump for Direct-Mounted Water Closet	DWV Components
→ IAPMO PS 61-92	Fabricated Stainless Steel Security Water Closets	Fixtures
→ IAPMO PS 63-2004a	Plastic Leaching Chambers	DWV Components
IAPMO PS 64-98	Pipe Flashings	Piping
→ IAPMO PS 65-2002	Air Gap Units for Water Conditioning Equipment Installation	Backflow Protection
IAPMO PS 66-2000	Dielectric Waterway Fittings	Piping
IAPMO PS 67-93	Early-Closure Replacement Flappers or Early-Closure Replacement Flapper With Mechanical Assemblies	Fixtures

MANDATORY REFERENCED STANDARDS

Table 14-1

Standard Number	Standard Title	Application
IAPMO PS 69-2003a	Plastic Bathwaste and Overflow Assemblies	Piping, Plastic
IAPMO PS 72-2003	Valves with Atmospheric Vacuum Breakers	Valves
IAPMO PS 73-93	Dental Vacuum Pumps	Miscellaneous
IAPMO PS 76-95	Ballcock or Flushometer Valve Tailpiece Trap Primers and Trap Primer Receptors/Adapters	DWV Components
IAPMO PS 79-2003	Multiport Electronic Trap Primer	DWV Components
IAPMO PS 80-2003b	Grease Interceptors and Clarifiers	DWV Components
IAPMO PS 81-2000	Precast Concrete Seepage Pit Liners and Covers	DWV Components
IAPMO PS 82-95	Fiberglass (Glass Fiber Reinforced Thermosetting Resin) Fittings	Piping, Plastic
IAPMO PS 85-95	Tools for Mechanically Formed Tee Connections in Copper Tubing	Piping
IAPMO PS 86-95	Rainwater Diverter Valve for Non-Roofed Area Slabs	DWV Components
IAPMO PS 87-95	Diverter and Shutoff Valves for Pool/Spas	Valves
IAPMO PS 88-2002	Pre-Pressurized Potable Water Tanks	Miscellaneous
IAPMO PS 89-95	Soaking and Hydrotherapy (Whirlpool) Bathtubs with Hydraulic Seatlift	Fixtures
IAPMO PS 90-2003	Elastomeric Test Caps/Cleanout Caps	DWV Components
IAPMO PS 91-95	Plastic Stabilizers for Use with Plastic Closet Bends	Piping, Plastic
IAPMO PS 92-2003	Heat Exchangers	Miscellaneous
IAPMO PS 93-2004a	Water Closet Seats with Spray, Water Closet Seats with Spray and other Devices with Spray for Water Closet	Fixtures
IAPMO PS 94-2001a	P-Trap, Supply Stop, and Riser Insulated Protector	Miscellaneous
IAPMO PS 95-2001	Drain, Waste, and Vent Hangers and Plastic Pipe Support Hooks	Piping
IAPMO PS 96-2002	Passive Direct Solar Water Heaters	Miscellaneous
IAPMO PS 97-2001	Mechanical Cast-Iron Closet Flanges	Piping, Ferrous
IAPMO PS 98-96	Prefabricated Fiberglass Church Baptistries	Fixtures
IAPMO PS 99-2004	Terrazzo Marble, Concrete, and Granite Plumbing Fixtures	Fixtures

Table 14-1

## UNIFORM PLUMBING CODE

Standard Number	Standard Title	Application
IAPMO PS 100-96	Porous Filter Protector for Subdrain Weep Holes	DWV Components
IAPMO PS 101-97	Suction Relief Valves	Valves
IAPMO PS 102-2004a	Pedestal Lavatory Trap	DWV Components
IAPMO PS 104-97	Pressure Relief Connection for Dispensing Equipment	Valves
IAPMO PS 105-97	Polyethylene Distribution Boxes	DWV Components
IAPMO PS 106-98	Prefabricated, Tileable Shower Receptors	Fixtures
IAPMO PS 107-98	Aramid-Reinforced Rubber Hose for Use in Non-Potable Water Radiant Heating and Snow Melting	Piping, Plastic
IAPMO PS 108-98	Restaurant Fire Suppression Systems	Appliances
IAPMO PS 110-99	PVC Cold Water Compression Fittings	Fittings
IAPMO PS 111-99	PVC Cold Water Gripper Fittings	Fittings
IAPMO PS 112-99	PVC Plastic Valves for Cold Water Distribution Systems Outside a Building and CPVC Plastic Valves for Hot and Cold Water Distribution Systems	Valves
IAPMO PS 113-99 <sup>et</sup>	Hydraulically Powered Household Food Waster Grinders	Appliances
IAPMO PS 114-99 <sup>et</sup>	Remote, Floor Box Industrial Water Supply, Air Supply, Drainage	Miscellaneous
IAPMO PS 115-2002	Hot Water Demand or Automatic Activated Hot Water Pumping Systems	Miscellaneous
IAPMO PS 116-99	Hot Water Circulating Devices Which Do Not Use a Pump	Miscellaneous
IAPMO PS 117-2004a	Press Type or Plain End Rubber Gasketed with Nail Connector Fittings for Copper Alloy Installation on Copper Tubing	Fittings
IAPMO PS 118-2000	FOG (Fats, Oils, Greases) Disposal Systems	DWV Components
IAPMO PS 119-2000	Water Energized Sump Pump	Miscellaneous
IAS 1-91	U.S. Requirements for Indirect Water Heaters for Use with External Heat Source	Miscellaneous
IAS LC 1b-2001 CSA 6.26-M99	Fuel Gas Piping Systems Using Corrugated Stainless Steel Tubing (CSST) Fuel Gas	Fuel Gas
ISO Guide 65-96	General Requirements for Bodies Operating Product Certification Systems	Certification
MSS SP-25-98	Standard Marking System for Valves, Fittings, Flanges, and Unions	Piping

Standard Number	Standard Title	Application
MSS SP-42-2004	Class 150 Corrosion-Resistant Gate-Globe, Angle, and Check Valves with Flanged and Butt Weld Ends	Piping, Ferrous
MSS SP-44-96	Steel Pipeline Flanges	Piping, Ferrous
MSS SP-58-2002	Pipe Hangers and Supports – Materials, Design, and Manufacture	Piping
MSS SP-67-2002a	Butterfly Valves	Valves
MSS SP-69-2002	Pipe Hangars and Supports - Selection and Application	Piping
MSS SP-70-98	Cast-Iron Gate Valves, Flanged and Threaded Ends	Valves
MSS SP-71-97	Cast-Iron Swing Check Valves, Flanged and Threaded Ends	Valves
MSS SP-72-99	Ball Valves with Flanged or Butt-Welding Ends for General Service	Valves
MSS SP-73-2003	Brazing Joints for Wrought and Cast Copper Alloy Solder Joint Pressure Fittings	Joints
MSS SP-78-98	Cast-Iron Plug Valves, Flanged and Threaded Ends	Valves
MSS SP-80-2003	Bronze Gate-Globe, Angle, and Check Valves	Valves
MSS SP-83-2001	Class 300 Steel Pipe Unions Socket-Welding and Threaded	Piping, Ferrous
MSS SP-89-98	Pipe Hangars and Supports - Fabrication and Installation Practices	Piping
MSS SP-104-2003	Wrought Copper Solder Joint Pressure Fittings	Piping, Copper Alloy
MSS SP-106-2003	Cast Copper Alloy Flanges and Flanges Fittings, Class 125, 150, and 300	Piping, Copper Alloy
MSS SP-109-97	Welded Fabricated Copper Solder Joint Pressure Fittings	Piping, Copper Alloy
MSS SP-123-98	Non-Ferrous Threaded and Solder-Joint Unions for Use with Copper Water Tube	Piping, Copper Alloy
NFPA 13R-2002	Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height	Miscellaneous
NFPA 13D-2002	Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes	Miscellaneous
NFPA 31-2001	Installation of Oil-Burning Equipment	Miscellaneous
NFPA 54-2002	National Fuel Gas Code (same as ANSI Z223.1)	Fuel Gas
NFPA 58-2004	Storage and Handling of Liquefied Petroleum Gases	Fuel Gas

Table 14-1

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Standard Number	Standard Title	Application
NFPA 85-2004	Boiler and Combustion Systems Hazards Code	Appliances
NFPA 99-2002	Health Care Facilities	Piping
NFPA 99C-2002	Gas and Vacuum Systems	Piping
NFPA 130-2003	Fixed Guideway Transit and Passenger Rail Systems	Miscellaneous
NFPA 211-2003	Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances	Miscellaneous
NFPA 502-2004	Road Tunnels, Bridges, and Other Limited Access Highways	Miscellaneous
NFPA 1989-2003	Breathing Air Quality for Fire and Emergency Services Respiration Protection	Miscellaneous
NSF 3-2003	Commercial Spray-Type Dishwashing and Glasswashing Machines	Appliances
NSF 12-2003e	Automatic Ice Making Equipment	Appliances
NSF 14-2004 <sup>1</sup>	Plastic Piping Components and Related Materials	Piping, Plastic
NSF 18-2004	Manual Food and Beverage Dispensing Equipment	Appliances
NSF 24-88(R96)	Plumbing System Components for Manufactured Homes and Recreational Vehicles	Miscellaneous
NSF 29-2003	Chemical Feeders for Commercial Dishwashers	Appliances
NSF 40-2000	Residential Wastewater Treatment Systems	DWV Components
NSF 41-99	Non-Liquid Saturated Treatment Systems	DWV Components
NSF 42-2002e	Drinking Water Treatment Units—Aesthetic Effects	Appliances
NSF 44-2004	Residential Cation Exchange Water Softeners	Appliances
NSF 46-2004	Evaluation of Components and Devices Used in Wastewater Treatment Systems	DWV Components
NSF 53-2004	Drinking Water Treatment Units—Health Effects	Appliances
NSF 58-2004	Reverse-Osmosis Drinking Water Treatment Systems	Appliances
NSF 61-2004	Drinking Water System Components—Health Effects	Miscellaneous
NSF 62-2004	Water Distillation Systems	Appliances
NSPI 1-2003	Public Swimming Pools	Swimming Pools and Spas
PDI G-101-85	Testing and Rating Procedure for Grease Interceptors with Appendix of Sizing and Installation Data	DWV Components

## MANDATORY REFERENCED STANDARDS

Table 14-1

Standard Number	Standard Title	Application
PDI-WH 201-92	Water Hammer Arresters	Piping
SAE J 512-97	Automotive Tube Fittings	Fittings
SAE J1670-93	Type F Clamps for Plumbing Applications	Joints
SAMA LF6a	Medical Care Facility Brassware	Miscellaneous
UL 80-2004	Steel Inside Tanks for Oil-Burner Fuel	Miscellaneous
UL 103-2001	Factory-Built Chimneys for Residential Type and Building Heating Appliances	Miscellaneous
UL 125-97	Valves for Anhydrous Ammonia and LPG (Other than Safety Relief)	Valves
UL 132-97	Safety Relief Valves for Anhydrous Ammonia and LPG	Valves
UL 144-99	LPG Regulators	Valves
UL 174-2004	Household Electric Storage Tank Water Heaters	Appliances
UL 252-2003	Compressed Gas Regulations	Valves
UL 296-2003	Oil Burners	Appliances
UL 343-97	Pumps for Oil-Burning Appliances	Pumps
UL 352-97	Constant-Level Oil Valves	Valves
UL 378-93	Draft Equipment	Miscellaneous
UL 399-93	Drinking-Water Coolers	Appliances
UL 430-2004	Waste Disposers	Appliances
UL 441-96	Gas Vents	Miscellaneous
UL 443-95	Steel Auxiliary Tanks for Oil-Burner Fuel	Miscellaneous
UL 499-97	Electrical Heating Appliances	Appliances
UL 563-95	Ice Makers	Appliances
UL 569-95	Pigtails and Flexible Hose Connectors for LP-Gas	Fuel Gas
UL 723-2004	Standard Test for Surface Burning Characteristics of Building Materials	Miscellaneous
UL 726-95	Oil-Fired Boiler Assemblies	Appliances
UL 732-95	Oil-Fired Storage Tank Water Heaters	Appliances

Table 14-1

Standard Number	Standard Title	Application
UL 749-97	Household Dishwashers	Appliances
UL 778-2002	Motor-Operated Water Pumps	Pumps
UL 834-2004	Heating, Water Supply, and Power Boilers—Electric	Appliances
UL 921-96	Commercial Electric Dishwashers	Appliances
UL 959-2001	Factory Built, Medium Heat Appliance Chimneys	Miscellaneous
UL 1206-2003	Electric Commercial Clothes Washing Equipment	Appliances
UL 1453-2004	Electric Booster and Commercial Storage Tank Water Heaters	Appliances
WQA S-300-91	Point-of-Use Low Pressure Reverse Osmosis Drinking Water Systems	Appliances

## Notes:

- 1 Although this standard is referenced in Table 14-1, some of the pipe, tubing, fittings, valves, or fixtures included in the standard are not acceptable for use under the provisions of the Uniform Plumbing Code.
- 4 See Section 316.1.3 for restriction.
- 5 Alloy C85200 for cleanout plugs.
- 6 Limited to domestic sewage.
- 7 Type II only.
- 9 ASSE 1066 is not intended to limit the maximum outlet temperature at point of use.
- 10 See Section 315.0 for trenching, excavation, and backfilling requirements when installing building drains and sewers. Engineers may wish to consult ASTM D 2321 when preparing plans and specifications for sewer mains or specific projects.

**TABLE 14-1 INDEX**

**Standards for Materials, Equipment,  
Joints, and Connections**

Standard Number	.page	.Code Sections
<b>Appliances</b>		
AHAM DW-1-2004	.223	
AHAM DW-2PR-92	.223	
AHAM FWD-1-92	.223	
ANSI Z21.10.1-2004 • CSA 4.1a02	.224	
ANSI Z21.10.3-2004	.224	
ANSI Z21.12b-94	.224	
ANSI Z21.13-2004	.224	
ANSI Z21.24-2001	.224	.1212.1(3)
ANSI Z21.69-03 • CSA 6.16-M03	.224	.1212.1(6)
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**ABBREVIATIONS IN TABLE 14-1**

<b>AHAM</b>	Association of Home Appliance Manufacturers, 1111 19th Street, N.W., Suite 402, Washington DC 20036.
<b>ANSI</b>	American National Standards Institute, Inc., 25 W. 42nd Street, 4th floor, New York, NY 10036.
<b>ARI</b>	Air Conditioning and Refrigeration Institute, 400 N. Fairfax Drive, Suite 200, Arlington, VA 22203.
<b>ASCE</b>	The American Society of Civil Engineers, 1801 Alexander Bell Drive, Reston, VA 20191.
<b>ASHRAE</b>	The American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc., 1791 Tullie Circle, NE, Atlanta, GA 30329-2305.
<b>ASME</b>	The American Society of Mechanical Engineering, Three Park Avenue, New York, NY 10016.
<b>ASSE</b>	American Society of Sanitary Engineering, 901 Canterbury, Suite A, Westlake, Ohio 44145.
<b>ASTM</b>	American Society of Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.
<b>AWS</b>	American Welding Society, 550 NW LeJuene Road, Miami, FL 33126.
<b>AWWA</b>	American Water Works Association, 6666 W. Quincy Avenue, Denver, CO 80235.
<b>CISPI</b>	Cast Iron Soil Pipe Institute, 5959 Shallowford Road, Suite 419, Chattanooga, TN 37421.
<b>CSA</b>	Canadian Standards Association, 5060 Spectrum Way, Suite 100, Mississauga, Ontario, L4W 5N6, Canada.
<b>(D) or [D]</b>	Discontinued.
<b>e1</b>	An editorial change since the last revision or reapproval.
<b>FS</b>	Federal Specifications, Federal Supply Service, Standards Division, General Services Administration, 7th and D Streets, Washington, DC 20407.
<b>IAPMO</b>	International Association of Plumbing and Mechanical Officials, 5001 E. Philadelphia Street, Ontario, CA 91761.
<b>ICC</b>	International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041.
<b>ISO</b>	International Organization for Standardization, 1 Rue de Varebre, Casa Postale 56, CH-1211 Geneva 20, Switzerland.
<b>MSS</b>	Manufacturers Standardization Society of the Valve and Fittings Industry, 127 Park Street, N.E., Vienna, VA 22180.
<b>NFPA</b>	National Fire Protection Association, P.O. Box 9101, 1 Batterymarch Park, Quincy, MA 02269-9101.
<b>NSF</b>	NSF International, 789 Dixboro Road, Ann Arbor, MI 48113-0140
<b>NSPI</b>	National Spa and Pool Institute, 2111 Eisenhower Avenue, Alexandria, VA 22314.

**ABBREVIATIONS IN TABLE 14-1**  
**(Continued)**

- PDI** Plumbing and Drainage Institute, 800 Turnpike Street, Suite 300, North Andover, MA 01845.
- UL** Underwriters' Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062.
- WQA** Water Quality Association, 4151 Naperville Road, Lisle, IL 60532-1088.