

The Growing World of Plastic Piping



- SEPTIC TANK/LEACH BED LINES
- SEWER LINES, STORM & SANITARY
- WATER AND WASTEWATER TREATMENT PLANTS
- CORROSIVE WASTE
- RECLAIMED WATER
- BURIED LIQUID GATHERING SYSTEMS
- CHILLED WATER COOLING
- SNOW MELTING
- RADIANT PANEL HEATING
- CHEMICAL AND PROCESS PIPING
- WATER SUPPLY
- IRRIGATION
- HOT & COLD WATER DISTRIBUTION
- DWV
- FIRE SPRINKLER PIPING
- SUB-SOIL DRAINAGE
- LOW-TEMP HEATING/COOLING SYSTEMS
- SWIMMING POOL PIPING

A LISTING OF COMMON APPLICATIONS OF PLASTIC PIPING SYSTEMS COVERED BY NATIONAL CONSENSUS STANDARDS

Published by Plastic Pipe and Fittings Association, 800 Roosevelt Road, Building C, Suite 20, Glen Ellyn, IL 60137-5833; 630/858-6540; Fax 630/790-3095

PPFA

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Dear Reader:

Welcome to the Growing World of Plastic Piping! Since 1960, the use of plastic in piping applications has grown in footage and types of applications. There are numerous applications for plastic piping, including plumbing and related piping systems.

Plastic piping is widely used because it is economical, easy to use, and corrosion resistant. These characteristics give it advantages over other plumbing piping materials. Even though the feedstocks for most plastic materials are derivatives of oil, plastic piping is energy efficient because it takes far less energy to manufacture comparable lengths and sizes of plastic pipe than other piping products. This is also true with regard to making the plastic fittings used in these systems.

In the early stages of plastics entry into the plumbing market, it was primarily used in drain-waste-vent (DWV) applications and water service lines. Over the years it dominated the DWV market, and manufacturers have continually added new materials and more diverse applications. For example, plastic piping is now used extensively in hot & cold water distribution systems and fire sprinkler systems. In addition, many plumbing products other than piping are made completely or partly of plastic materials.

In keeping with industry efforts to maintain fire safety, plastic piping has undergone extensive and successful fire testing to define the appropriate conditions for its installation in fire resistive construction. Plastic fire sprinkler piping has been accepted for use in National Fire Protection Association Standards (NFPA) 13, 13R, and 13D systems. These plastic piping systems are proving to be cost effective, which is a contributing factor in the increased use of fire sprinkler systems.

PPFA also publishes Plastic Pipe in Fire Resistive Construction, a manual that provides detailed information on how plastic piping can penetrate through or be contained within fire rated walls or floor/ceiling assemblies without reducing their fire ratings.

We are pleased to provide you with this easy reference guide to the growing world of plastic piping. If you have questions about plastic piping materials for plumbing and related piping systems, please contact PPFA.

Sincerely,

The Plastic Pipe and Fittings Association.

Plastic Pipe and Fittings Association, 800 Roosevelt Road, Building C, Suite 20, Glen Ellyn, IL 60137-5833
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Introduction

This publication provides engineers, contractors, code officials and consumers with basic information about plastic piping for plumbing and related piping systems. The fold-out poster shows general categories for plumbing and related piping systems, the materials commonly used in those applications, and the ASTM standards applicable to the piping system components.

Used successfully in the United States since 1943, plastic piping for plumbing and related piping systems has met the challenge of providing improved technology for the construction industry.

Plastic plumbing materials are an excellent value because of their outstanding performance, low initial cost, easy installation and maintenance, long life, and the significant energy savings in manufacture and use. In these and other respects, plastic pipe and fittings compare favorably with other materials.

Plastics vary greatly in their characteristics and properties. These differences benefit the consumer in two ways: first, through proper design, each plastic raw material can be properly utilized and controlled (see ASTM Standards); second, a competitive market exists within the plastic piping industry because the characteristics and properties of different plastic materials often overlap in piping applications.

The plastic materials currently in use for plumbing and related piping systems include the following :

- ABS ACRYLONITRILE-BUTADIENE-STYRENE
- PE POLYETHYLENE
- PB POLYBUTYLENE
- PEX CROSSLINKED POLYETHYLENE
- PVC POLYVINYL CHLORIDE
- CPVC CHLORINATED POLYVINYL CHLORIDE
- PP POLYPROPYLENE

The following chart shows the general categories of plumbing and related piping systems for plastic piping materials covered by applicable national consensus standards. Various manufacturers may exempt certain specific applications from these general categories. It is important to refer to the manufacturer's application instructions before installation.

Plastic Piping Material

PLUMBING AND RELATED APPLICATION	ABS	CPV C	PB	PE	PEX	PP	PVC
Drain, waste and vent	X						X
Hot and cold water distribution		X	X		X	X	
Fire sprinkler piping		X	X				
Outside sewers and drains	X						X
Septic fields-sub-soil				X			X
Tubular waste	X					X	X
Water piping	X*	X	X	X	X		X

*Check the manufacturer's recommendation.

APPLICATION	PLASTIC MATERIAL	ASTM STANDARD	SCOPE
NON-PRESSURE PIPING			
Drain, Waste and Vent (DWV)	ABS	D 2661, F 628 & D 3311 D 2235 F 402	Pipe & Fittings ABS Solvent Safe handling of solvent cements and primers
Building Drain and Waste	PVC	D 2661, F 628, & D 3311	Pipe & Fittings Solvent cement for PVC/ABS transition joints in non-pressure piping
Building Storm & Rainwater Piping		D 2949 D2564 F 656 F 402	Pipe Fitting (3.25" o.d.) PVC solvent cement PVC primer Safe handling of solvent cements and primers
		D 2855 D 2672 D 3138	Making solvent cemented joints Socket joints for solvent cemented pipe Solvent cement for PVC/ABS transition joints in non-pressure piping
OUTSIDE SEWERS & DRAINS	ABS	D 2751 & F 628 D 2235 F 402	Pipe & Fittings ABS solvent cement Safe handling of solvent and primers
		D 3212	Elastomeric joints
Building Sewer	PVC	D 3034 F 891	Pipe & Fitting Type PSM Pipe & Fitting Sewer & Drain Series
Building Storm & Sanitary		F 679 F 789 D 2729 D 2564 D 2855	Pipe & Fitting Large Diameter Sewer Pipe & Fitting Type PS-46 Sewer PVC solvent cement Making solvent cement joints
		F 402 D 3212	Safe handling of solvent cements and primers Elastomeric joints
SEPTIC DISPOSAL FIELDS & SUBSOIL DRAINAGE	PE	F 405	Corrugated Tubing & Fitting, performed
Perforated Piping		F 810 F 892	Smooth Wall Pipe, perforated Corrugated Pipe & Fittings, perforated with a smooth interior
		D 2751 D 2729 D 3034 D 481	Fittings, ABS Fittings, PVC Installation Pipe, perforated installation
TUBULAR WASTE	ABS	F 409 D 2235 F 402	Tube & Fittings PVC solvent cement Safe handling of solvent cements and primers
Tube & Fittings for Accessible Waste Connections		F 2509 D 2646 D 2855	Tube & Fittings ABS solvent cement Making solvent cemented joints
		F 402	Safe handling of solvent cements and primers
		F 409 D 2657	Tube & Fittings Heat Joining
PRESSURE PIPING	CPVC	D 2846 F 493	Pipe, Tubing & Fittings CPVC solvent cement
Hot & Cold Water Distribution Systems		F 402	Safe handling of solvent cements and primers
	PB	D 3309	Pipe, Tubing & Fittings
	PEX	F 1380 F 877, F876	Metal insert fittings Tubing
Fire Sprinkler Piping	CPVC	F 442	Pipe, SDR-PR, o.d., controlled Fittings, Schedule 80, threaded
		F 437 F 438 F 439	Fittings, Schedule 40, socket-type Fittings, Schedule 80, socket-type Pipe, Tubing & Fittings
	PB	D 3309	Pipe, SDR-PR, o.d.
WATER PIPING	ABS	D 1527 D 2282 F 480	Pipe, Schedules 40 & 80 Pipe, SDR-PR Water Well Casting & Coupling
Water Supply		D 2468	Fittings, Schedule 40 socket-type
Water Distribution		D 2235 F 402	ABS solvent cement Safe handling of solvent cements and primers
Yard Sprinkler		D 2468	Fittings, Schedule 40 socket-type
Swimming Pool Piping		D 2235 F 402	ABS solvent cement Safe handling of solvent cements and primers
Chilled Water piping			
Low-Temp/Heating/Cooling Irrigation Systems			

APPLICATION	PLASTIC MATERIAL	ASTM STANDARD	SCOPE
Industrial Process Piping	PE	D 2239 D 3035 D 2104	Pipe, SDR-PR I.d. controlled Pipe, SDR-PR O.d. controlled Pipe, Schedule, 40, I.d. controlled
Ice Rinks		D 2737	Tubing, SDR-PR
Ice Melting		D 2447	Pipe, Schedules 40 & 80
Water Transmission		D 2609	Fittings, insert-type, 11/2" and smaller
Radiant Panel Heating		D 3350 C 906 D 2683	Pipe & Fittings Pipe and fittings, 4" to 63" Socket-type fittings, o.d. controlled
		D 3261	Fittings, butt-type, heat fusion
		C 901 F 714	1/2-3" pipe and tubing Pipe, SDR-PR, o.d. controlled
	PEX	F 876 F 877	Tubing o.d. controlled Plastic Hot- and Cold- Water Distribution Systems
	PB	D 2662 D 2666 D 3000	Pipe, SDR-PR, I.d. controlled Tubing o.d. controlled Pipe, SDR-PR, o.d. controlled
		D 2609	Fittings, insert-type, 11/2" and smaller
		C 902 (ANSI/AWWA)	1/2-3" pipe and tubing Pipe, Tubing & Fittings
		D 3309 F 1380 D 1785	Metal insert fittings Pipe, Schedules 40, 80 & 120
	PVC	D 2241	Pipe, SDR-PR, o.d. controlled
		D 480 D 2564 F 656 D 2855	Water Well Castings and Couplings PVC solvent cement PVC primer Making solvent cement joints
		F 405	Safe handling of solvent cements and primers
		D 2466	Fittings, Schedule 40, socket-type
		D 2467	Fittings, Schedule 80, threaded
		D 2464	Socket/joints for solvent cemented pipe
		D 2672 D 3139 F 477	Joints with elastomeric seals Elastomeric Seals (gaskets) Pipe, 4-12", pressure (CI-OD & IPS-OD)
		C 900 (ANSI/AWWA)	Fittings, 4-8" pressure
		C 907 (ANSI/AWWA) C 905 (ANSI/AWWA)	Pipe, 14-36", pressure Pipe, Schedules 40-80
	CPVC	F 442 F 493 F 402	Pipe, SDR-PR, o.d. controlled CPVC solvent cement Safe handling of solvent cements and primers
		F 438 F 439 F 437	Fittings, Schedule 40, socket-type Fittings, Schedule 80, threaded Fittings, Schedule 80, threaded

Piping made of ABS, CPVC, and PVC is classed as rigid pipe. Piping made of PE, PB, PEX, and PP is classed as flexible pipe.

ANSI/AWWA

- C 900 AWWA Standard for Poly(Vinyl Chloride) (PVC) Pipe, 4-in. through 12-in. for Water Distribution
- C 901 AWWA Standard for Polyethylene (PE) Pressure Pipe and Tubing, 1/2 in. through 3 in., for Water Service
- C 902 AWWA Standard for Polyethylene (PE) Pressure Pipe and Tubing, 1/2 in. through 3 in., for Water
- C 905 AWWA Standard for Poly(Vinyl Chloride) (PVC) Water Transmission Pipe, Nominal Diameter 14-in. through 16-in.
- C 906 AWWA Standard for Polyethylene (PE) Pressure Pipe and Fittings, 4-in. through 63 in., for Water Distribution
- C 907 AWWA Standard for Poly(Vinyl Chloride) (PVC) Pressure Fittings for Water, 4-in. through 3-in. (100mm - 200mm)

ASTM

- D 1527 Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe, Schedules 40 and 80
- D 1785 Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120
- D 2104 Specification for Polyethylene (PE) Plastic Pipe, Schedule 40
- D 2235 Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings
- D 2239 Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Controlled Inside Diameter
- D 2241 Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (DR Series)
- D 2282 Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe (SDR-PR)
- D 2321 Practice for Underground Installation of Flexible Thermoplastic Pipe for Sewers and Other Gravity Flow Applications. NOTE: ASTM D 2321 has undergone many changes. It remains good back information for engineers designing sewer systems and installation specifications; for contractors, however, the standard is less useful because the length, basic format of the early standard has been sacrificed.
- D 2447 Specification for Polyethylene (PE) Plastic Pipe, Schedules 40, 80, and 120
- D 2446 Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40
- D 2467 Specification for Socket-Type Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80
- D 2468 Specification for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings
- D 2564 Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Pipe and Fittings
- D 2609 Specification for Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe
- D 2657 Practice for Heat Joining Polyethylene Pipe and Fittings
- D 2661 Specification for Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings
- D 2662 Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Controlled Inside Diameter
- D 2665 Specification for Poly(Vinyl Chloride) (PVC) Drain, Waste, and Vent Pipe and Fittings
- D 2666 Specification for Polyethylene (PE) Plastic Tubing
- D 2672 Specification for joints for IPS PVC Pipe Using Solvent Cement
- D 2680 Specification for Acrylonitrile-Butadiene-Styrene (ABS) and Poly(Vinyl Chloride) (PVC) Composite Sewer Pipe
- D 2683 Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing
- D 2737 Specification for Polyethylene (PE) Plastic Tubing
- D 2751 Specification for Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings
- D 2846/D 2846M-95 Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems
- D 2855 Practice for Making Solvent-Cemented Joints with Poly(Vinyl Chloride) (PVC) Pipe and Fittings
- D 2949 Specification for 3.25-in. Outside Diameter Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings
- D 3000 Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter
- D 3034 Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings
- D 3035 Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter
- D 3138 Specification for Solvent Cements for Transition Joints Between Acrylonitrile-Butadiene-Styrene (ABS) and Poly(Vinyl Chloride) (PVC) Non-Pressure Piping Components
- D 3139 Specification for joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals
- D 3140 Flaring Polyethylene Pipe & Tubing
- D 3212 Specification for joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
- D 3261 Specification for Butt Heat Fusion Polyethylene (PE) Plastic Pipe Fittings, Schedule 40
- D 3309 Specification for Polyethylene (PE) Plastic Hot- and Cold-Water Distribution Systems

F 402 Practice for Safe Handling of Solvent Cements, Primers, and Cleaners Used for Joining Thermoplastic Pipe and Fittings

F 405 Specification for Corrugated Polyethylene (PE) Tubing and Fittings

F 409 Specification for Thermoplastic Accessible and Replaceable Plastic Tube and Subular Fittings

F 437 Specification for Threaded Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80

F 438 Specification for Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40

F 439 Specification for Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80

F 441 Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80

F 442 Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR)

F 449 Practice for Substrate Installation of Corrugated Thermoplastic Tubing for Agricultural Drainage or Water Table Control

F 477 Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe

F 480 Specification for Thermoplastic Water Well Casing Pipe and Couplings Made in Standard Dimension Ratio (SDR), 30, 40 and 50-80

F 481 Practice for Installation of Thermoplastic Pipe and Corrugated Tubing in Septic Tank Leach Fields

F 493 Specification for Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings

F 628 Specification for Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe With a Cellular Core

F 645 Guide for Section Design, Installation of Thermoplastic Water Pressure Piping

F 656 Specification for Primers for Use in Solvent Cement Joints of Poly(Vinyl Chloride)(PVC) Plastic Pipe and Fittings

F 667 Specification for Large Diameter Corrugated Polyethylene Tubing and Fittings

F 679 Specification for Poly(Vinyl Chloride) (PVC) Large-Diameter Plastic, Gravity Sewer Pipe and Fittings

F 690 Practice for Underground Installation of Thermoplastic Pressure Piping Irrigation Systems

F 714 Practice for Polyethylene (PE) Plastic Pipe, SDR-PR, Based on Outside Diameter

F 789 Practice for Type PS-46 and PS-115 Poly(Vinyl Chloride) (PVC) Plastic Gravity Flow Sewer Pipe and Fittings

F 794 Specification for Poly (Vinyl Chloride)(PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter

F 809 Specification for Large Diameter Polyethylene Plastic Pipe

F 809M Specification for Large Diameter Polyethylene Plastic Pipe, Metric

F 810 Specification for Smoothwall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields

F 876 Specification for Crosslinked Polyethylene (PE) Tubing

F 877 Specification for Corrugated Polyethylene (PE) Plastic Hot and Cold Water Distribution Systems

F 891 Specification for Corrugated Poly(Vinyl Chloride) (PVC) Plastic Pipe With a Cellular Core

F 892 Specification for Polyethylene (PE) Corrugated Pipe With a Smooth Interior and Fittings

F 894 Specification for Polyethylene (PE) Large Diameter Profile Wall Sewer & Drain Pipe

F 949 Specification for Corrugated Sewer Pipe With a Smooth Interior and Fittings

F 1281 Specification for Crosslinked Polyethylene/Aminium/Polyethylene (PE/ALPE) Composite Pressure Pipe

F 1282 Specification for Polyethylene/Aminium/Polyethylene (PE/ALPE) Composite Pressure Pipe

F 1290 Practice for Distribution Using Polyolefin Pipe and Fittings

F 1336 Specification for Standard Specification for Poly(Vinyl Chloride) (PVC) Galvanized Sewer Fittings

F 1380 Specification for Metal Insert Fittings for Polyethylene (PE) Tubing

For procedures on installing thermoplastic pressure pipe underground, see ASTM D3774.

For information on joints for plastic pressure pipe using elastomeric seals, see ASTM D3139. For procedures on flaring PB tubing, see ASTM D3140. Copies of these standards may be obtained from:

AMERICAN SOCIETY FOR TESTING AND MATERIALS
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959
(610) 832-9500

AMERICAN WATER WORKS ASSOCIATION

6666 West Quincy Avenue
Denver, CO 80235
(303) 794-7711



PLASTIC PIPE AND FITTINGS ASSOCIATION

800 Roosevelt Road, Building C,
Suite 20, Glen Ellyn, IL 60137-5833
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The Benefits of Using Plastic Piping Materials

- **ENERGY EFFICIENT.** Plastic piping is energy efficient. The manufacturing process normally consumes fewer BTUs than alternate materials for equal lengths of pipe. For example, a 1991 study by Franklin & Associates indicated that the manufacture of plastic pressure piping used in the building, construction, and transportation industries required 56,497 trillion fewer BTUs than the manufacture of copper, iron & steel alternatives. Similarly, the manufacture of plastic sewer and drain piping required 4,634 trillion fewer BTUs than iron and concrete/aggregate alternatives. Additionally, in hot water distribution systems, plastic piping serves as an insulator to reduce heat loss. Although plastic piping is made from petroleum-based products, it does its share to reduce energy consumption.
- **LOW COST.** The initial cost of piping materials is important to users. Again, plastic piping receives high marks. Its initial cost is significantly less than the cost of other material. In addition, installation costs of plastic versus other materials often represent further savings to the user.
- **EASY INSTALLING AND HANDLING.** Cutting, joining and installing plastic piping is far simpler than the same processes for other materials. At today's labor rates, increased productivity is vital. A normal length of DWV pipe can be carried by one man, whereas two men or a machine are required to move a similar section of heavier metal piping. The benefits of its light weight are especially evident to the installer when working in tight places.
- **LONG SERVICE LIFE.** The service life of a material is important to the consumer. Millions of plastic piping installations have been in service for more than a quarter of a century and are still functioning as well as they did the day they were installed.
- **CORROSION RESISTANT.** Plastic piping is corrosion resistant and has very low flow resistance. Plastic piping systems resist most normal household chemicals and many other substances which might enter a sanitary drainage system. Plastic DWV piping resists the kind of interior build-up that sometimes plagues metal piping. The smooth wall of the plastic piping makes transport of wastes and water more efficient and effective. In addition, plastic piping does not conduct electricity and is not susceptible to galvanic or electrolytic corrosion.
- **EASY IDENTIFICATION.** Plastic piping is marked to aid in identification. Manufacturers making and testing their pipe and fittings according to ASTM standards, are required by these standards to mark such products with references to the applicable standard. This procedure makes it simple for users to properly identify the many kinds of plastic pipe and fittings which are available for different applications. If you have not used plastic piping before, it may be time to try it. Our industry is proud of the products it offers for varying piping applications. We stand ready to serve our customers and bring them the benefits of The Growing World of Plastic Piping.

CODE ACCEPTANCE

Plumbing codes are the basis for acceptance of materials for specific plumbing installations and for the methods of installation. Model plumbing codes, sponsored by associations of building and plumbing code officials or other industry groups, are the basis for most of the more than 14,000 local codes in this country. While many jurisdictions adopt model codes as they are published, these jurisdictions also have the power to amend codes when they are adopted. The following organizations and their model plumbing codes accept the use of plastic for various piping applications:

- Building Officials and Code Administrators International**
BOCA National Plumbing Code
- International Association of Plumbing and Mechanical Officials**
Uniform Plumbing Code
- International Codes Council**
International Plumbing Code
- Southern Building Code Congress International**
Standard Plumbing Code
- Council of American Building Officials**
CABO One and Two Family Dwelling Code
- NSF International**
Standards 14 and 61
- National Association of Plumbing, Heating, Cooling Contractors**
National Standard Plumbing Code
- Canadian Standards Association (CSA)**

Plastic piping is also an approved material for use in U.S. Government projects according to directives of the U.S. Department of Housing and Urban Development.

Regardless of the material you choose to use, you must check your local plumbing code for approved materials. Manufacturers' installation instructions must be followed when installing these materials.

The material contained herein was assembled by the Plastic Pipe and Fittings Association and published by it for general informational purposes only. No warranties or representations, expressed or implied, including but not limited to merchantability and fitness for a particular purpose, are made or intended by PPFA or any of its members that any product or category of products referred to directly or indirectly herein is suitable for any specific end use. PPFA therefore disclaims any liability and responsibility for the selection of particular products for particular applications or for the operation or performance of any referenced product or category of products. The determination of the suitability of any information contained herein for any use or application remains the sole responsibility of the user.

Additional information on installation procedures for plastic piping in plumbing applications may be obtained from the Plastic Pipe and Fittings Association, 800 Roosevelt Road, Building C, Suite 20, Glen Ellyn, Illinois 60137-5833. Phone: (630) 858-6540.

Additional information on plastic piping use for water and sewer mains may be obtained from the Uni-Bell PVC Pipe Association, 2655 Villa Creek Dr., Suite 164, Dallas, Texas 75234. Phone: (214) 243-3902.

General information on plastic piping for other purposes may be obtained from the Plastics Pipe Institute, 1275 K Street NW, Suite 400, Washington, DC 20005. Phone: (202) 371-5306.

