

Chapter 02: Pipe Joining Techniques

Plumbing 201

TRUE/FALSE

1. As plastic pipe size increases, the pressure rating increases.

ANS: F PTS: 1

2. Plastic pipe sizes are either outside diameter or inside diameter controlled.

ANS: T PTS: 1

3. Most plastic piping must be protected from prolonged exposure to sunlight.

ANS: T PTS: 1

4. Most plastic pipe materials have the same pressure/temperature ratings.

ANS: F PTS: 1

5. The pressure rating of PEX piping does not change with temperature.

ANS: F PTS: 1

6. Some plastic piping materials have both nonpressure and pressure-application ratings.

ANS: T PTS: 1

7. CPVC pipe is suitable for both hot and cold water applications.

ANS: T PTS: 1

8. SDR and SIDR ratios are the same thing.

ANS: F PTS: 1

9. The preferred method of joining PE pipe is solvent cement.

ANS: F PTS: 1

10. Plastic pipe should be pressure tested with air to dry the solvent cement inside the pipe.

ANS: F PTS: 1

11. Plastic materials will not conduct electricity.

ANS: T PTS: 1

12. Universal plastic pipe cements are preferred by the manufacturers of plastic pipe.

ANS: F PTS: 1

13. All CSST tubing is manufactured to the same dimensions.

ANS: F PTS: 1

14. Cast iron pipe comes standard in 20 foot lengths.

ANS: F PTS: 1

15. Cast iron pipe comes standard in 10 foot lengths.

ANS: T PTS: 1

16. Plastic pipe expands and contracts more than steel pipe.

ANS: T PTS: 1

17. Steel pipe is the strongest and toughest piping material made.

ANS: T PTS: 1

18. Galvanized steel pipe is designed for use in fuel gas systems.

ANS: F PTS: 1

MULTIPLE CHOICE

1. The type of plastic which cannot be softened by the application of heat is called
- | | |
|-------------------|----------|
| a. thermoplastic. | c. CPVC. |
| b. thermoset. | d. PVC. |

ANS: B PTS: 1

2. The largest portion of the plastic piping market is used for ____ applications.
- | | |
|-------------------|---------------------------|
| a. fire sprinkler | c. drain, waste, and vent |
| b. process piping | d. underground piping |

ANS: D PTS: 1

3. The common element in all plastic polymers is
- | | |
|--------------|--------------|
| a. carbon. | c. hydrogen. |
| b. chlorine. | d. nitrogen. |

ANS: A PTS: 1

4. The joining method to be used for plastic piping depends on
- | |
|--|
| a. the nature of the molecules and polymer chains. |
| b. whether the pipe is OD- or ID-controlled. |
| c. whether the plastic will burn in the presence of a flame. |
| d. the conductivity of the plastic. |

ANS: B PTS: 1

5. Which of the following is NOT an advantage of plastic piping?

- a. corrosion resistance
- b. chemical resistance
- c. one type serves all purposes
- d. light weight

ANS: C PTS: 1

6. When colored piping is used, gas distribution piping would normally be what color(s)?
- a. orange
 - b. green
 - c. tan or gray
 - d. yellow or black with yellow stripes

ANS: D PTS: 1

7. Which of the following plastic piping materials CANNOT be joined using solvent cement?
- a. ABS
 - b. PE
 - c. CPVC
 - d. PVC

ANS: B PTS: 1

8. In solvent cement joining, the cement is applied to
- a. the outside of the pipe end and the inside of the socket.
 - b. the outside of the pipe end only.
 - c. the inside of the socket only.
 - d. none of the above.

ANS: A PTS: 1

9. Where can you find the threshold limits for worker exposure to the solvents used for solvent cement joining?
- a. label on the solvent cement can
 - b. insert flyer in the box of solvent cement cans
 - c. Safety Data Sheet
 - d. NIOSH website

ANS: C PTS: 1

10. Which type of piping is normally joined using elastomeric sealing gaskets?
- a. DWV piping
 - b. fire sprinkler piping
 - c. irrigation piping
 - d. underground PVC pressure and sewer piping

ANS: D PTS: 1

11. Which of the following is NOT a type of mechanical fitting joint?
- a. electrofusion
 - b. crimp ring
 - c. nut ferrule
 - d. stab-type

ANS: A PTS: 1

12. The four types of heat fusion joining are:
- a. butt fusion, stab fusion, electrofusion, and saddle fusion.
 - b. crimp fusion, socket fusion, electrofusion, and saddle fusion.
 - c. socket fusion, ferrule fusion, butt fusion, and stab fusion.
 - d. butt fusion, socket fusion, electrofusion, and saddle fusion.

ANS: D PTS: 1

13. Which of the following is a nonrigid piping material?
- a. ABS
 - b. CPVC
 - c. PE
 - d. PP

ANS: C PTS: 1

14. Which is a type of piping that is no longer available?
- a. ABS
 - b. PB
 - c. PE
 - d. PP

ANS: B PTS: 1

15. What type of joints are commonly used to join PE and PEX tubing?
- a. elastomeric gaskets
 - b. flanges
 - c. heat fusion
 - d. mechanical fittings

ANS: D PTS: 1

16. Type L copper tubing is coded with which color stripe and lettering?
- a. red
 - b. blue
 - c. green
 - d. yellow

ANS: B PTS: 1

17. Which of the following is NOT an acceptable method of joining copper tubing?
- a. solvent cement
 - b. brazing
 - c. flaring
 - d. soldering

ANS: A PTS: 1