

- Exposure to sunlight during normal construction periods is not harmful. PVC solvent cements should be stored in a cool place, except when actually in use at the job site. The solvent cement manufacturer's specific storage recommendations should be followed. [UPC 313.0]
- 2.4.2 Alignment.** Pipe and fittings shall be aligned properly without strain.
- 2.4.3 Thermal Expansion.** Pipe (except pipe with elastomeric gasketed joints) shall be "snaked" in the trench bottom with enough slack, at least 6 inches (152.4 mm) per 100 feet (30,480 mm), to compensate for thermal expansion and contraction before stabilizing piping. Stabilize piping by bringing it approximately to operating temperature before testing and backfilling by one of the following methods:
- (a) Shade backfill. Leave all joints exposed so that they can be examined during pressure test.
 - (b) Fill with water at operating temperature.
 - (c) Allow to stand overnight.
- 2.4.4 Exposed Piping.** Vertical piping may extend a maximum of 24 in. (610 mm) above grade when located on the exterior of the building or structure and protected from mechanical damage to the satisfaction of the Administrative Authority. Where exposed to sunlight, the pipe shall be wrapped with at least 0.040 in. (1.0 mm) of tape or otherwise protected from UV degradation.
- 2.5 Trenching, Cover and Backfill**
- 2.5.1 Trenching and Cover.** Trench bottoms shall be uniformly graded and shall be of either undisturbed soil or shall consist of a layer or layers of compacted backfill so that minimum settlement will take place. [UPC 315.0]
- 2.5.2 Backfill.** Selected backfill shall be used. Tamp the backfill that is placed around the pipe so as to provide firm continuous support and proper compaction. Backfill at least 12 inches (305 mm) over pipes, except that joints shall be left exposed. After inspection and pressure test, complete backfill. [UPC 315.4]
- 2.5.3 Elastomeric Joints.** Backfill immediately after installing pipe.
Note: This is to maintain equal spaces within the joints for contraction and expansion.
- 2.6 Joints**
- 2.6.1 Solvent Cement Joints**
- 2.6.1.1 Selection.** Follow manufacturer's recommendations for types of solvent cement for such conditions as temperature over 100°F (38°C), humidity over 60% or use of Schedule 80 fittings. [UPC 316.0]
- 2.6.1.2 Handling (to maintain effectiveness).** Package solvent cement in containers no larger than 1 quart (1 liter). Keep solvent cement can closed and in the shade when not in use. Keep applicator submerged in solvent cement between applications. When solvent cement becomes thicker, THROW IT AWAY. Solvent cement shall NOT be thinned.
- 2.6.1.3 Size of Applicator.** Applicator should be about one half the pipe diameter. Do not use small applicator on large pipes.
- 2.6.1.4 Primers.** All solvent cement PVC joints shall be made using a listed primer in compliance with ASTM F656 and as specified in Section 316.1.6 of the UPC.
- 2.6.1.5 Application.** Solvent cement shall be applied deliberately, but without delay (two men may be needed to make large joints). Use special care when temperature is over 100°F (38°C) or humidity is over 60%.
- 2.6.1.6 Procedure**
Note: Do not take SHORT CUTS. Most failures are caused by short cuts. DON'T TAKE A CHANCE.
- 2.6.2 SAFETY REQUIREMENTS AND PRECAUTIONS¹**
- 2.6.2.1 General.** Solvents contained in PVC plastic pipe cements are classified as airborne contaminants and flammable and combustible liquids. Precautions listed in this appendix should be followed to avoid injury to personnel and the hazard of fire.
- 2.6.2.2 Safety Precautions.** Prolonged breathing of solvent vapors should be avoided. When pipe and fittings are being joined in partially enclosed areas, a ventilating device should be used in such a manner to minimize the entry of vapors into the breathing areas.
- 2.6.2.3** Solvent cements should be kept away from all sources of ignition, heat, sparks, and open flame.
- 2.6.2.4** Containers for solvent cements should be kept tightly closed except when the cement is being used.
- 2.6.2.5** All rags and other materials used for mopping up spills should be kept in a