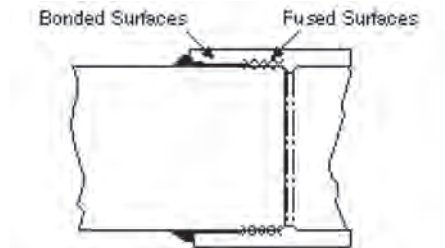


disturbed until they have cured sufficiently to withstand handling. Joint strength develops as the cement dries. Information about development of bond strength of solvent cemented joints is available (see Fig. 4).



**Figure 4**

Bonded and Fused Surfaces of Joined Hoses

#### 5.1.6 Procedure

**NOTE:** Do not take *SHORT CUTS*. Most failures are caused by short cuts. *DON'T TAKE A CHANCE.*

- Step 1** Cut hose square with hand saw and miter box, mechanical cut-off saw, or tube cutter designed for plastic.
- Step 2** Ream and chamfer hose (to eliminate sharp edges, beads and all burrs).
- Step 3** Clean all dirt, moisture, and grease from hose and fitting socket. Use a clean, dry rag.
- Step 4** Check dry fit of hose in fitting. Hose should enter fitting socket from 1/3 to 3/4 depth of socket.
- Step 5** Soften inside socket surface by applying an aggressive primer which is a true solvent for PVC and is recommended by the manufacturer.
- Step 6** Soften mating outside surface of hose to depth of socket by applying a liberal coat of the (aggressive) primer. Be sure entire surface is softened.
- Step 7** Again coat inside socket surface with the (aggressive) primer. Then, without delay, apply solvent cement liberally to outside of hose. Use more than enough to fill any gaps.

**Step 8** Apply a light coat of PVC solvent cement to inside of socket using straight outward strokes (to keep excess solvent out of socket). This is also to prevent solvent cement damage to hose. For loose fits, apply a second coat of solvent cement. Time is important at this stage. (See 5.1.4)

**Step 9** While both the inside socket surface and the outside surface of the hose are *SOFT* and *WET* with solvent cement, forcefully bottom the hose in the socket, giving the hose a one-quarter turn, if possible. The hose must go to the bottom of the socket.

**Step 10** Hold the joint together until tight.

**Step 11** Wipe excess cement from the hose. A properly made joint will normally show a bead around its entire perimeter. Any gaps may indicate insufficient cement or the use of light bodied cement on larger diameters where heavy bodied cement should have been used.

**Step 12** Do not disturb joint for the following periods:

30 minutes minimum at 60°F to 100°F (16°C to 38°C)

1 hour minimum at 40°F to 60°F (4°C to 16°C)

2 hours minimum at 20°F to 40°F (-7°C to 4°C)

4 hours minimum at 0°F to 20°F (-18°C to -7°C)

Handle the newly assembled joints carefully during these periods. If gaps (step 11) or loose fits are encountered in the system, double these periods.

**Step 13** The system shall not be pressurized until the joints have cured (set) at least as long as recommended by the manufacturer. If manufacturer's recommendation is not available, the cure times as shown in Table 1 are required.

#### 5.1.7

#### Installation and Testing

##### 5.1.7.1

**Installation.** The hose shall be properly supported to prevent excessive sagging.