Christys Why Joints Fail

Problem #1: Insufficient solvent cement applied to bonding surfaces

- Don't skip steps and apply only to one surface (apply to <u>both</u> pipe and fitting)
- Using the incorrect applicator; you don't get enough solvent applied
- Not coating the surfaces fully and repeatedly
- Using expired jelled solvent or thinned solvent

Problem #2: Pipe improperly prepared

- Not cut squarely and cleanly
- Not removing burrs and beads
- Not cleaning the pipe surfaces of debris, oil, etc.
- Wrong fit between pipe and fitting (excessive gap / tolerance)

Problem #3: Not selecting correct product for the task

- Applicator too small for pipe diameter
- Wrong viscosity or type for pipe size or conditions

Problem #4: Insufficient set and cure time allowed

- Productive contractors often need to use a faster-acting cement
- Temperature and humidity greatly impact creation of proper joints
- Always read set and cure time recommendations on can label









Exhibit 1: 2" PVC Sch. 40 Joint, T Christy Ent.



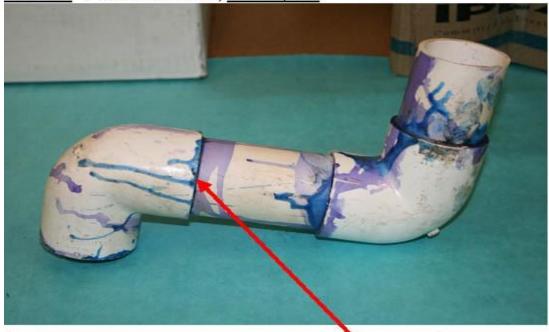
Voids and gaps around the socket entrance generally indicate that an inadequate amount of cement was applied to the pipe and fitting-socket.

Exhibit 2:



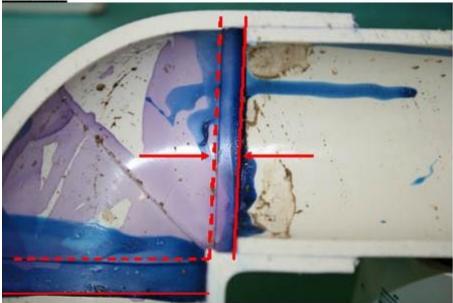
Pipe-end does not appear to have been beveled as per ASTM D 2855.

Exhibit 3: 2" PVC Sch. 40 Joints, T Christy Ent.



Areas around the fitting socket entrance exhibited little cement, with no evidence of cement having been wiped off. This generally indicates a lack of cement within the joint.

Exhibit 4:



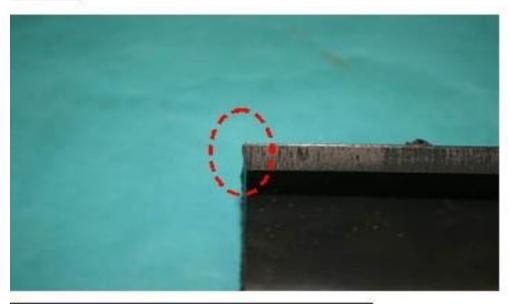
Pipe has not been fully inserted (bottomed) into these fitting-socket stops.

Exhibit 1: T Christy 3" Sch. 80 PVC Joint Section



Large glossy area showing with little evidence of cement or primer.

Exhibit 2:



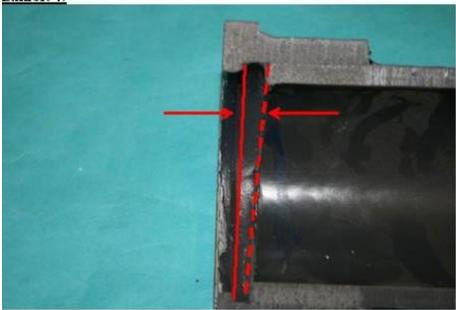
Pipe-end does not appear to have been beveled.

Exhibit 3: T Christy 3" Sch. 80 PVC Joint Section



Soil had intermingled with the cement while it was still wet (during the installation).





Pipe-end was neither cut square nor fully inserted into the fitting socket.