

# Instructions for solvent cement jointing of PVC-U



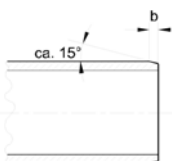
## Instructions for solvent cement jointing of PVC-U

### Important

Always follow the instructions of the manufacturer of the solvent cement and cleaner. The following instructions are valid if Tangit cleaner and Tangit solvent cement are used ([www.tangit.com](http://www.tangit.com)).

**Preparations:** The pipe must be cut off at right angles. Remove the inside edges and chamfer the outside ones as illustrated in the sketch. Only then is an optimal solvent cemented joint possible.

**Important:** Well-chamfered pipe ends prevent the layer of cement from being removed as the pipe is inserted into the fitting.



Pipe outside diameter mm	b
6 - 16 mm	1 - 2 mm
20 - 50 mm	2 - 3 mm
63 - 225 mm	3 - 6 mm
250 - 400 mm	6 - 8 mm

Wipe the outside of the pipe and the inside of the socket with a clean cloth to remove obvious dirt. Marking the jointing length on the pipe end makes it possible to check afterwards whether the pipe has been inserted to the full extent of the socket.

**Note:** If the outside diameter of the pipe and the inside diameter of the socket are at opposite extremes of their tolerances, then the pipe cannot be inserted dry into the fitting socket. This will only become possible once the cement has been applied.

### Cementing

Clean the outside of the pipe end and the inside of the socket **thoroughly** with cleaner and absorbent paper. Use a fresh piece of paper for each component. Remove any condensation which may have formed on the parts.

**Important:** Pipe end and fitting socket must be dry and free from grease and dirt and must not be touched after cleaning.

PVC-U pipes may have a waxy surface. To ensure proper jointing in such a case the cleaning process must be repeated until the pipe surface becomes matt to the eye.

PVC-U pipes should be cemented at temperatures between 5 °C and 40 °C. Take the following protective measures if the temperatures deviate from the above:

At lower temperatures, condensation or frost which may have formed must be removed, e. g. with warm air. Cement and cleaner should be stored at room temperature.

Avoid uneven overheating (→ shorten the opening time) when cementing at higher temperatures by protecting the jointing area from direct sunlight.

The quick curing time of the cement necessitates that the joint is made within the opening time after application of the cement has started. The opening time of the PVC-U cement varies with the ambient temperature and the thickness of the cement applied.

Begin by applying a normal layer of cement to the fitting socket and then a thicker one to the pipe end with firm brush pressure. **Work in well.** The brush strokes should always be in an axial direction.

To ensure that both jointing surfaces are completely covered with a smooth, even layer of cement, the brush should be generously loaded with cement.

### Range of dimensions up to d75

The cement joints can be produced by one person.

#### Jointing

After the cement has been applied, insert the pipe to the full depth of the socket immediately without twisting and bring them into the correct alignment. Ensure that the outlet of the fitting is in the correct position. Hold them briefly in this position to allow the cement to set.

#### Waiting time between cementing

Wait at least 5 minutes before the next joint, extend the waiting time at temperatures under 10 °C to 15 minutes.

### Range of dimensions d90 to d225

The fitting socket and end of pipe should be coated with cement simultaneously by two persons, otherwise the opening time of the cement cannot be observed.

#### Jointing

After the cement has been applied, insert the pipe to the full depth of the socket immediately without twisting and bring them into the correct alignment. Ensure that the outlet of the fitting is in the correct position. Hold them briefly in this position to allow the cement to set.

#### Waiting time between cementing

Wait at least 5 minutes before the next joint, extend the waiting time at temperatures under 10 °C to 15 minutes.

### Range of dimensions d250 to d400

Deviating from the usual method of application, pour the cement directly from the tin onto the middle of the cementing surface and distribute first radially and then axially all over with a flat brush. Make sure that the cement layer is consistent and covers the entire surface as appropriate for the larger tolerances.

Apply a thinner layer of cement in the fitting than on the pipe ends. The cementing of pipe work in this range of dimensions should be carried out by at least 2 persons. The minimum thickness of the cement layer for fittings is 1 mm, apply more generously on the pipe ends.

#### Jointing

After applying the cement, the pipe and fitting should be slowly pushed together to the stop or the mark without twisting by 3-4 persons and aligned. Ensure that the outlet end of the fitting is in the correct position. Hold the joint in this position for 1 minute.

#### Waiting time between cementing

A waiting time of 15 minutes should be observed before further jointing; this time should be increased to 30 minutes at temperatures below 10 °C.

Remove any surplus cement immediately, using absorbent paper.

A bead of excess solvent cement around the complete external circumference of the joint and a slightly smaller bead again around the complete internal circumference show that the joint has been performed correctly.

After use, clean the brush of excess cement with dry absorbent paper and then clean thoroughly using cleaner. Brushes must be dry before being re-used (shake out).

Do not close off cement pipelines during the drying process. This is particularly important at temperatures below + 5 °C, when there is otherwise a danger of damaging the material.

After the drying process the pipelines can be filled. It is recommended to flush the pipeline before use, and leave it filled with water if it is not directly used. Do not use compressed air for flushing.

### Drying period and pressure testing

The drying period of the cement before application of the test or working pressure depends on the drying temperature, the dimension and the fit conditions.

If the pipe is only subjected to the operating pressure, e. g. after adaptation or repair work, the following rule of thumb for the drying waiting time applies:

**1 hour waiting time per bar operating pressure.**

### Safety precautions

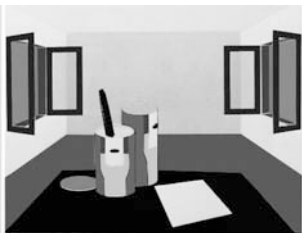
Cement and cleaner contain highly volatile solvents. This makes good ventilation or adequate fume extraction essential in closed spaces. Since the solvent fumes are heavier than air, extraction must occur at floor level, or at least below the working level. Place paper which has been used for cleaning or for the removal of surplus cement into closed containers to minimise the amount of solvent fumes in the air.

Cement and cleaner are inflammable. Extinguish open fires before commencing work. Switch off unprotected electrical apparatus, electric heaters, etc. Do not smoke! Discontinue any welding operations. Furthermore, observe all instructions issued by the solvent cement manufacturer (e. g. label of the tin and any supplementary documentation).

Protect pipes and fittings from spilled solvent cement, cleaner and absorbent paper which has been used to wipe off cement. Do not dispose of surplus solvent cement or cleaner in drainage systems.

The use of protective gloves is recommended to avoid contact with skin. If the cement or the cleaner get in contact with eyes, rinse immediately with water. Consult a doctor! Immediately change clothes that have solvent cement on them.

Always obey the safety regulations issued by the authorities responsible.



Adequate ventilation of the workplace

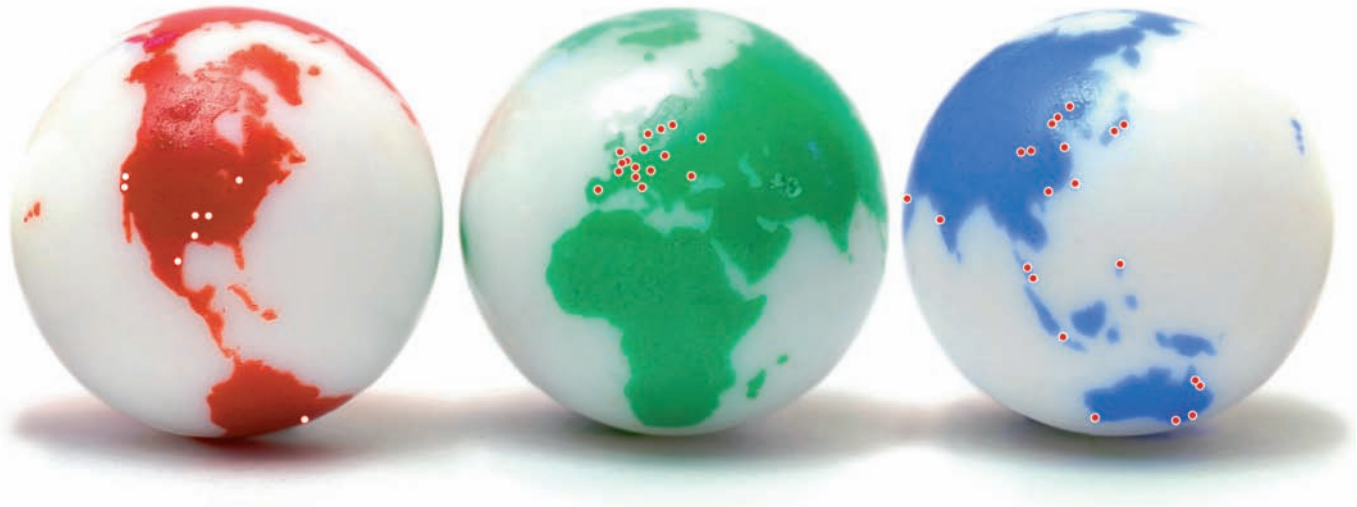


No open flames when cementing. No smoking.

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[www.tp-piping.com](http://www.tp-piping.com)



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