

Solvent Cement Jointing Guidelines for Iplex PVC pipes.

To whom it may concern:

RECOMMENDATIONS FOR USE OF NOVAKEY BRAND PVC CLEANER PRIMER, AND ASSOCIATED NOVAKEY BRAND PVC SOLVENT CEMENT

(NB: These recommendations apply generally to Iplex Apollo Series 1 PVC-O pipes, Iplex White Rhino (Series 1) PVC-M pipes, Iplex Novakey (Series 1) PVC-U pipes, Iplex Novadrain PVC-U DWV pipes and compatible Novakey brand or Novadrain brand PVC-U fittings

The complete "Recommendations for Use", printed on each container of Novakey brand Cleaner Primer, and Novakey brand PVC solvent cement, and the Recommendations for Use contained in this letter must be adhered to.

We also strongly recommend reference is made to the published PIPA Industry Guidelines for Solvent Cement jointing of PVC-U pipe, which can be found at <http://www.pipa.com.au/PDFs/POP102.pdf>

Novakey brand Cleaner Primer and Novakey brand Solvent Cement must be used together, to ensure permanent, leak free joints using the steps below

Use of Cleaner Primer:

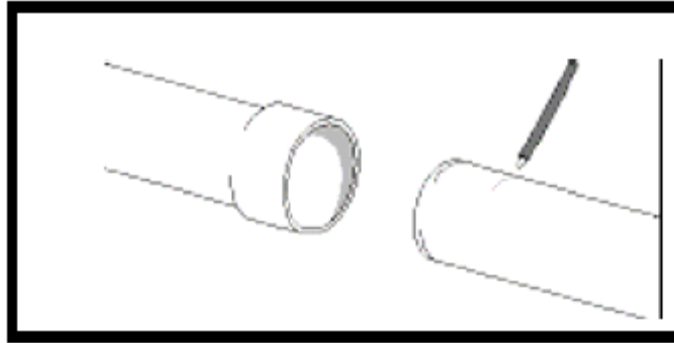
Cleaner primer must be used to prime and clean all jointing surfaces, prior to application of solvent cement. **NO EXCEPTIONS.** Cleaner primer is essential to the process.

No additive of any kind should be added to the cleaner primer, or to the solvent cement. Ensure that the solvent cement is in good condition and runs freely from the brush. If the cement does not run freely or appears "globular" or "tacky", discard and use fresh stock of solvent cement. Ensure that the cement is within its recommended "use by" date.

Procedure

Preparation

1. Make sure the spigot and socket are not cracked or damaged. Remove any burrs, dirt, pipe shavings and moisture from the spigot and socket. Proper deburring of the pipe end avoids wiping the cement from the inside of the socket, when the spigot is inserted to make the joint. Failure to properly deburr may prevent full pipe penetration and/or cause detrimental accumulation of solvent cement at the socket root.
2. Check the spigot and socket for correct alignment.
3. On the spigot, make a witness mark with a pencil or felt pen at a place equal to the full internal depth of the socket. Do not scratch or score the pipe.

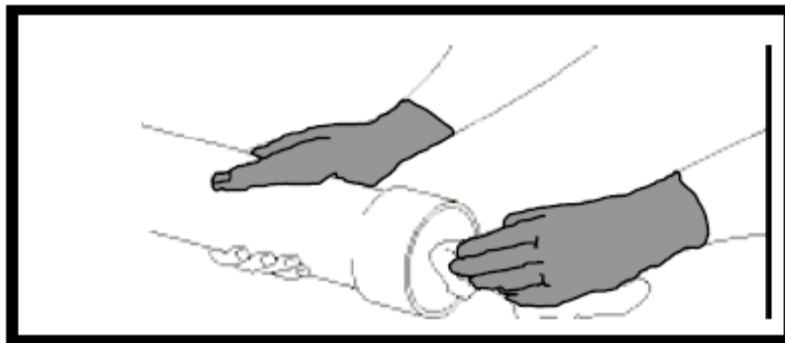


4. Dry fit the joint. An interference fit must be reached before the spigot is fully inserted to the witness mark

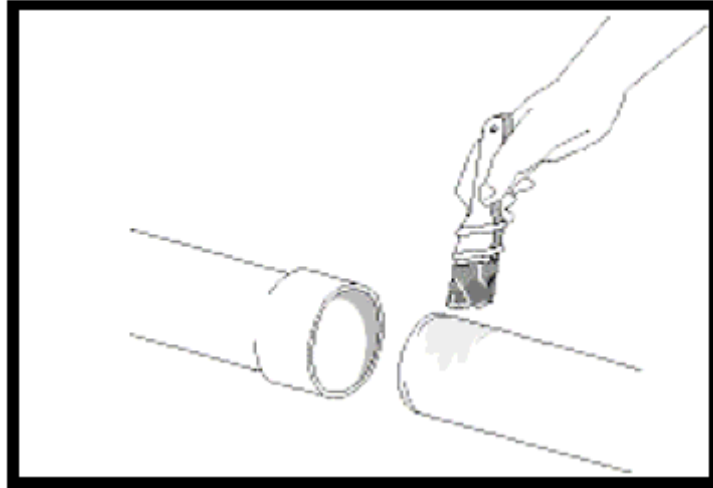
5. Make sure the spigot and socket are dry. Any moisture in the joint may lead to joint failure later.

Jointing

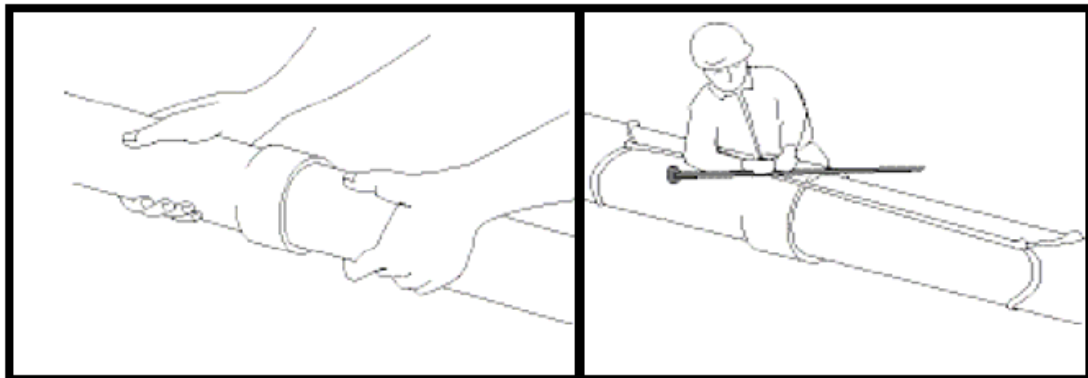
1. Dry, degrease and prime the spigot and socket with a lint-free cloth (natural fibres) dampened with priming fluid. Priming is vitally important, as it etches off the gloss from the PVC, and softens the PVC surface for the solvent cement's effective bond. Use protective polyethylene gloves. Priming fluids are to be used before solvent cementing. Prime and solvent cement one joint at a time.



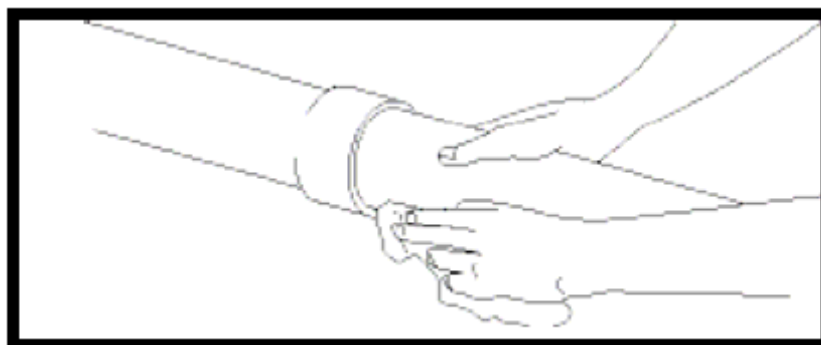
2. Apply a thin full coat of solvent cement to the inside surface of the socket and to the spigot, up to the witness mark. For pipes above DN 100, use a good quality brush, of width about half the pipe diameter. Ensure the entire surface is covered, and that both spigot and socket appear thoroughly "wet" with cement before assembly. Solvents will evaporate faster from the exposed spigot than from the socket. A 'dry' patch will not develop a proper bond, even if the mating surface is covered. A patch not lubricated by wet cement, may also prevent full insertion. Ensure that excess solvent cement isn't built up at the back of the socket (pools of solvent will continue to attack the PVC and weaken the pipe).



3. Quickly (within 1 minute), push spigot into socket, up to the witness mark, while the cement is still wet. Make the joint in a single movement. Do not stop halfway, since the bond will start to set immediately and it will be almost impossible to insert further. Hold the joint together firmly without movement for at least 30 seconds. The spigot must be “pushed home” to the full depth of the socket. The final 10% of spigot penetration is vital to the interference fit. Mechanical force will be required for larger joints. Be ready in advance. Pipe pullers are commercially available for this purpose. Polyester pipe slings are very useful for gripping a pipe, in order to apply a winch or lever.



4. Wipe off excess cement from the outside, and where possible the inside. Do not move the joint for at least 5 minutes, and handle carefully for at least another hour.



5. Allow the cement to fully cure before attempting any site pressure testing. Do not fill the pipe with water for at least one hour after making the last joint. At temperatures of 16 – 20 Deg C, the curing period normally takes at least 24 hours, to ensure the joint strength equals that of the pipe. Allow a longer cure period if the temperature is lower than 16 Deg C, up to at least 48 hours.

Health and Safety Caution:

Iplex PVC solvent cement and cleaner primer are highly inflammable liquids, may be harmful if swallowed or inhaled, and may cause skin or eye irritation. Avoid breathing the vapour, and use with adequate ventilation. Comply with all warning and First Aid notices, displayed on the label of each container.

For further information contact ...

Iplex Pipelines NZ Ltd.

67 Malden St, Palmerston North
PH 06 3582004

Call Centre PH 0800 800 262, Fax: 0800 800 804,

Website: www.iplexpipelines.co.nz