National Plumbing Regulators Forum

NPRF ADVISORY NOTE

Issued 23 March 2011

SOLVENT CEMENT JOINTING OF PVC-U TO ABS/ASA AND ABS/ASA TO PVC-U IN NON-PRESSURE APPLICATIONS

The purpose of this Advisory Note is to provide advice to the plumbing industry on a national basis regarding the current practice of jointing Unplasticised Polyvinyl Chloride (PVC-U) sanitary plumbing and drainage products to either Acrylonitrile Butadiene Styrene (ABS) or Acrylic Styrene Acrylonitrile (ASA) and similarly ABS/ASA to PVC-U sanitary plumbing and drainage products by solvent welding. As this has become common practice using Type N solvent cement in non pressure applications and although not currently referenced in AS/NZS 3500:2003 it is recognised by regulators as acceptable industry practice.

BACKGROUND

The jointing of PVC-U to ABS/ASA or ABS/ASA to PVC-U using Type N solvent cement in non pressure applications has been practiced throughout the plumbing industry in Australia and New Zealand since products in ABS/ASA first became available over 15 years ago. This practice is being recommended by some manufacturers in their literature. ABS is a plastic product typically white in colour and supplied by a number of plastic product manufacturers in Australia. Examples of products made from ABS for non-pressure applications include:

- Pan collars.
- Disconnector gully mounds.
- Slab repair couplings.
- Smart traps.
- Floor waste gullies.

Questions have been raised over whether these materials can be successfully joined in plumbing installations without any joint failure in the long term. They are plastic products of similar dimensions although they do have some differences in character and composition.

PVC-U to ABS

PVC-U **ABS**

DETERMINATIONS

The National Plumbing Regulators Forum is satisfied that PVC-U may be joined to ABS/ASA or ABS/ASA to PVC-U in non-pressure applications only and made in accordance with the standards for both materials, AS/NZS 2032:2006 for PVC-U, AS/NZS 3690:2009 for ABS and the manufacturer's instructions based on the following:

- Australian Standard *AS/NZS 3879:2006 Solvent cements and priming fluids for PVC and ABS pipes and fittings* states non pressure solvent cement may be used for jointing other applications where high bond strength is not required e.g. both PVC-U and ABS.
- Evidence that tens of thousands of ABS products have already been installed in this way and continue to be installed in plumbing systems daily.
- Regulators throughout Australia have received no reported failures as a result of jointing PVC-U to ABS/ASA or ABS/ASA to PVC-U in non-pressure plumbing installations and completed in accordance with the requirements of AS/NZS 3879.
- Independent testing by a National Association of Testing Authorities (NATA) certified laboratory has confirmed the jointing of PVC-U to ABS with Type N solvent cement achieves the same integrity of jointing to those made between like materials (PVC-U to PVC-U and ABS to ABS).
- Both materials can be joined to each other in non pressure applications using the same Type N solvent cement.
- ATS 5200.055 is a specification for drainage fittings installed in reactive soils. It provides for the jointing of PVC-U to ABS/ASA or ABS/ASA to PVC-U in these soils provided the joint is not inferior to that of a PVC to PVC joint. The following is an extract from ATS 5200.055.

  > *Clause 8.1.1.2 ABS/PVC or ASA/PVC Joints.- Where the fitting body is either ABS or ASA and intended to be solvent-welded to PVC pipes complying with AS/NZS 1260, the joint strength and shear strength shall not be inferior to that of a PVC to PVC joint.*

CONCLUSION

Members of the National Plumbing Regulators Forum will continue to accept the industry practice of jointing these materials using solvent cement complying with *AS/NZS 3879:2006* for non-pressure applications in sanitary plumbing and drainage installations.

For further information contact www.plumbingregulators.org or your state or territory plumbing regulator

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