The jointing of ABS to PVC

If you were presented with two fittings, one ABS and the other PVC, could you easily tell the difference? Are you possibly carrying a mixture of both and don't know?

PVC = Polyvinyl chloride

ABS = Acrylonitrile butadiene styrene

The question has been raised within the industry about the jointing of ABS to PVC.

While both systems of pipe jointing primarily rely on a cement system, ABS & PVC have different molecular structures and different thermal expansion rates.

The pipe make-ups and materials are different and so too are the cements, which are of different solution and manufacture and are not cross compatible, according to the solvent manufacturers.

There is conflicting information in the marketplace where some are recommending jointing methods of dissimilar materials that may work, but unfortunately currently do not comply with Australian Standards.

ABS fittings are designed for high and low pressure applications as are PVC, yet the two materials are different and require different jointing systems.

PVC Type N Solvent cement (according to the manufacturers) is not a recommended jointing material for PVC to ABS. Solvent cement manufacturers have commented that PVC solvent cement is "not recommended" for use on ABS material as it will not achieve the desired joint.

AS/NZS 2032 – 2006 - 4.8 states:

4.8 CONNECTION OF PVC PIPES AND FITTINGS TO PIPES AND FITTINGS OF OTHER MATERIALS

For pressure and non-pressure applications, mechanical couplings shall be used in accordance with the manufacturer's instructions to join PVC pipes (or fittings) to pipes (or fittings) of other materials.

For gravity or low-pressure applications, metal banded flexible couplings complying with AS/NZS 4327 may be installed to join PVC pipes (or fittings) to pipes (or fittings) of other materials having the same or similar nominal diameter.

When joining any of the above mentioned materials, the **Australian Standards procedures must be followed.** If the plumber is unsure if materials are compatible or not, they should contact the manufacturer for confirmation and **always follow the Australian Standards.**

Where does the plumber fit into all of this? It is up to the plumber to use only approved products and approved installation methods. This includes the jointing of pipes and fittings. Unfortunately this can make the licensed plumber liable if the plumbing drainage system (for example) failed due to incorrect installation (the jointing of dissimilar materials incorrectly according to Australian Standards).

PVC pipe and fitting manufacturers state that their products are intended to be joined with a solvent cement designed for use with PVC and joined to PVC. Use of other solvent cements or materials may void warranty on the products.

The Association accepts that a case can be and has been made that ABS and PVC can be jointed and that joint will hold if the correct cement is used. Unfortunately Australian Standards still do not allow the jointing of dissimilar materials via this method.

Plumbers should be cautious if using solvent cement type "N" on dissimilar materials as they may face rectification, damage, failure or warranty problems if the joint fails from the use of the wrong jointing method. In light of the content of the current Standard and the risk of liability it is the Association's view that it is best not to mix dissimilar materials. The answer is to either install a full PVC system or a full ABS system.

Ernie Kretschmer, Technical Officer

BCQ mandatory requirements for sub-metering

Building Codes Queensland (BCQ) has received several requests for clarification on the application of mandatory requirements for sub-metering. BCQ has also received several requests for confirmation of the commencement dates and application of Queensland Development Code parts MP 4.1, MP 4.2 and MP 4.3.

Sub-metering

Irrespective of the date of lodgement of the development application or the building development application (building application/BA) any plumbing assessment applications lodged on or after 1 January 2008 for new premises within a reticulated water supply area will require a sub-meter for each separate lot and common property in a community title scheme (CTS) or for each sole occupancy unit in the building.

QDC MP 4.1 Sustainable buildings

From 1 January 2008 existing Class 1 buildings and sole occupancy units in existing Class 2 buildings require the mandatory retrofit of water efficient devices and toilets as part of other renovations. Other renovations are any additions or alterations requiring both a building approval and a plumbing approval.

QDC MP 4.2 Water savings targets

QDC MP 4.2 requires all building development applications (building applications/BAs) lodged for the construction of Class 1 buildings to meet water savings targets. Water savings targets can be met through a number of options including the installation of a rainwater tank, communal rainwater tanks, dual reticulation or storm water reuse.

From 1 January 2008, a greywater treatment plant can be used as an alternative to meet the water savings targets. The greywater treatment plant must treat the greywater to the quality required for its intended end use, as defined in table T1 of the Queensland Plumbing and Wastewater Code.

QDC MP 4.3 Alternative water sources—commercial buildings

From 1 January 2008 in South East Queensland and from 1 July 2008 in the remainder of Queensland all building development applications (building applications/BAs) lodged for the construction of new Class 3 to 9 buildings and associated Class 10 buildings will be required to use an alternative water source.