



# NPRF ADVISORY NOTE

20 May 2011

## Polyethylene and Polypropylene Elbows

### Purpose

The purpose of this Advisory Note is to provide guidance to the Australian and New Zealand plumbing industry and consumers that the installation of Polyethylene and Polypropylene elbows in Sanitary Plumbing and Drainage gravitational installations is unsatisfactory.

### Background

The National Plumbing Regulators Forum (NPRF) has identified that a number of plumbing practitioners are installing elbows made of Polyethylene and Polypropylene in sanitary plumbing and drainage gravitational installations.

The introduction of the Water Efficiency Labelling Scheme (WELS) has resulted in an increased uptake of water efficient plumbing fittings and appliances, consequently reducing the gravitational discharge velocity of flows within sanitary plumbing and drainage installations. To ensure gravitational sanitary plumbing and drainage systems are designed and installed so as not to restrict the hydraulic flow, bends rather than elbows must be installed. This will reduce the occurrence of blockages, as well as costly rectification and maintenance issues.

**AS/NZS 3500.2:2003 Sanitary plumbing and drainage** specifies that only bends shall be used in sanitary plumbing and drainage gravitational installations and does not provide the use of elbows. Clause 4.3.3 states, "Changes of direction or gradient in drains shall be effected by the use of bends or junction fittings, or at inspection chambers".

**AS/NZS 3500:2003 Part 0 Glossary of terms** provides definitions for bends and elbows

**Elbow** – a pipe fitting for providing a sharp change of direction in a pipeline.

**Bend** – a short length of pipe or a manufactured fitting used to make a change of direction in pipework.

### Recommendation

Hydraulic Consultants and Plumbing Practitioners are to ensure that when either designing or installing sanitary plumbing and drainage gravitational systems where bends are used they comply with **AS/NZS 3500.2:2003 Sanitary plumbing and drainage** installation standard. The NPRF propose to request an amendment to **AS/NZS 3500.0:2003 Glossary of terms** that will specify bends must have a minimum throat radius in sanitary plumbing and drainage installations.



Typical Elbow



Typical Bend

For further information contact [www.plumbingregulators.org](http://www.plumbingregulators.org) or your State or Territory plumbing regulator

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