



## *Installation Practice for Copper Victaulic Roll-Grooved Joints In Buried Applications*

### **INTRODUCTION**

Copper tube is renowned for its satisfactory performance in buried applications. The introduction of roll-grooved joints for use with Australian Standard AS1432 copper tube provides piping designers and installers with another jointing option for copper. There are cases where the simplicity and effectiveness of roll-grooved joints offers the best solution for an installation or repair.

In addition to compliance with the requirements of the Plumbing Code AS/NZS 3500.1.2 and the local regulatory authority, special attention must be given to protection of completed **Copper Victaulic** joints from corrosion in all buried applications. The following installation practice applies to all buried **Copper Victaulic** piping.

### **PIPING DESIGN**

Piping is to be designed and installed in accordance with the requirements of the Plumbing Code AS/NZS 3500.1.2:1998. Particular attention must be given to Clauses:  
5.9 - Anchorage below ground; 5.10 - Depth of cover in public areas; 5.11 - Depth of cover in private areas; 5.12 - Bedding and backfill paragraphs 1 & 2; 5.13 - Contaminated areas; and 5.14 - Corrosive areas.

### **JOINT DESIGN**

Joints shall be made in accordance with Kembla Tube & Fittings Technical Bulletin D41/00, using tools designed for Australian Standard AS1432 copper tube.

### **PRESSURE TEST**

Assembled joints and piping shall be pressure tested to 1500 kPa for 30 minutes in accordance with AS/NZS 3500.1.2 Clause 13.2.1, prior to burial and application of corrosion protection materials.

### **CORROSION PROTECTION OF BURIED JOINTS**

Where **Copper Victaulic** is to be buried, each assembled joint shall be protected using the specified Petro Coating Systems' materials in accordance with the following procedure.

#### **Step 1**      **Prepare Surface**

Remove all rust, paint or other residue by hand or power tool in accordance with AS1627-1997 or AS1627, part 2-1975. All surfaces should then be evenly coated with Petro Primer paste to fill any hollow or surface irregularity and ensure contact of the tape.

#### **Step 2**      **Apply Petro Mastic**

Petro Mastic should be used to contour the coupling, including the area around the bolts. This is to guard against voids and pockets during wrapping.

**Step 3**      **Apply Petro 40 Tape**

Petro 40 Tape should be spirally wrapped using a 55% overlap to ensure a double layer. When pipe is vertical, wrapping should begin at the bottom. While applying the tape, all overlaps should be smoothed by hand. A 50 mm roll to roll should be used when starting a new roll.

**Step 4**      **Apply Petro 250 Overwrap Tape**

Petro 250 overwrap is to be applied using 55% overwrap for mechanical protection.

It is to be noted that the total wrapped length over the completed joint should be approximately 450 mm. All coating materials should be applied generously for the best possible results. The protection procedure may be carried out at temperatures as low as -5°C and as high as 60°C.

**Figures 1 & 2 show a Copper Victaulic joint protected in accordance with the “4 step” installation practice.**



**Figure 1: Complete “4 Step” protected joint.**



**Figure 2: A section of a protected joint showing contoured mastic and overlapped tapes.**

**SALES AND TECHNICAL ENQUIRIES**

**Kembla copper pipe and Copper Victaulic fittings are available from plumbing supply Merchants throughout Australia and New Zealand**

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