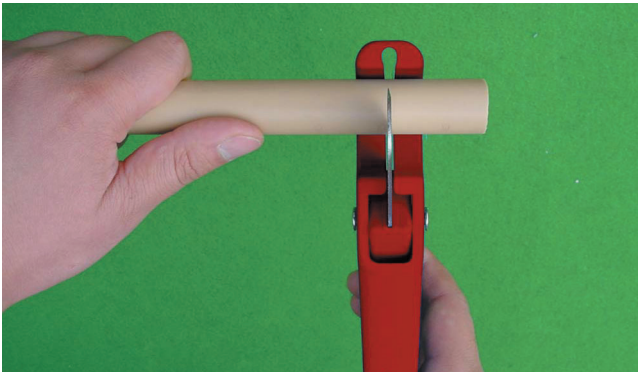


# TECTITE

## How to make the perfect Tectite Joint



### 1. CUT

Use only purpose designed pipe cutters and cut the pipe squarely. Ensure the pipe is free from burrs and scratches.

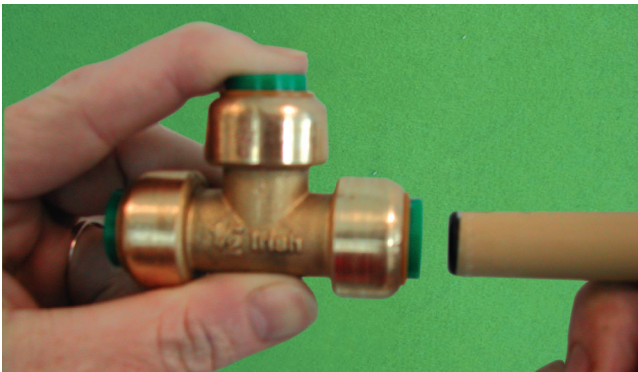
**Do NOT use a hacksaw**



### 2. PIPE INSERT

Always use the correct pipe insert

- Black insert for Qual-PEX/Qual-PB
- No insert required for copper



### 3. PUSH...FIT

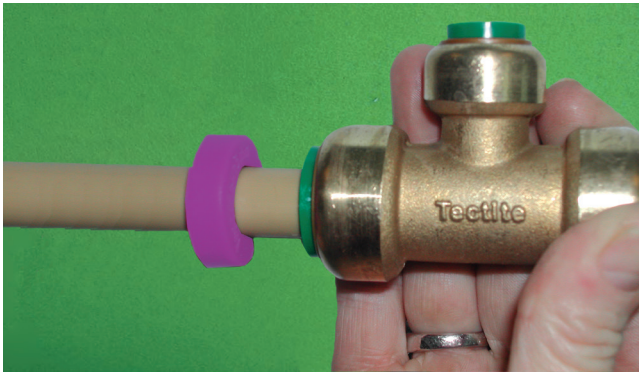
Visually check the internal components. Clearly mark the insertion depth on the pipe (1/2"=21.5mm, 3/4"=25.5mm). Push the pipe firmly and horizontally into the fitting. A secure joint has been made when the insertion marking is reached.



### 4. CHECK

After checking the correct insertion depth has been used, pull back on the pipe firmly to ensure the grab ring engages correctly

# Disconnecting a Tectite joint..... using a Tectite release clip or tool



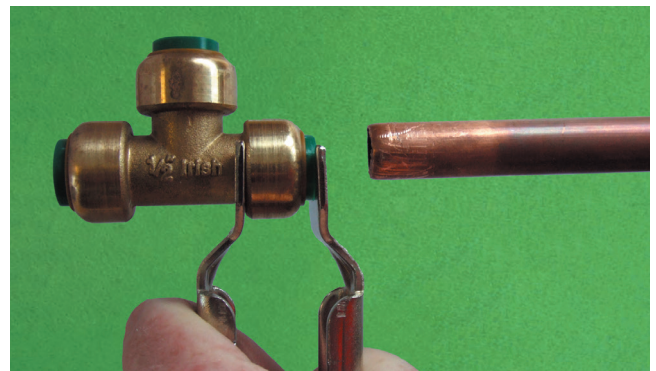
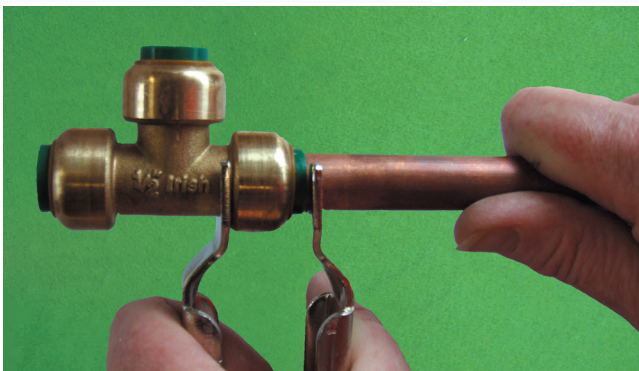
## 1. PUSH...IN

Ensure that the system is depressurised.  
Hold the pipe firmly and push the pipe inward toward the joint.  
Place the demounting clip/tool against the release collet.



## 2. PULL...OUT

Press the demounting clip/tool against the release collet and then pull the pipe releasing it from the joint.  
**Do NOT pull the pipe prior to applying the correct inward pressure on the collet.**



**If the pipe is damaged (track marks) after the fitting is disconnected, then cut the pipe back before making another Tectite joint.**

## Testing a Tectite joint

The purpose of system testing is to identify any points where leakages occur at a time when they can be repaired as easily as possible, regardless of their causes. Testing takes place immediately after first fix installation, and before the pipe work is completely covered over. For systems with Mechanical connectors, high and low pressure testing is mandatory.

## **WARNING: No pressure test = no guarantee**

**Low-pressure test = 3 Bar (air or water) for 15 minutes High-pressure test = 6 Bar (air or water) for 1 hour or at 1.5 times the pressure relief valve setting (if over 6 bar)**

Low and high pressure tests are mandatory

# Installation Guidelines

## Thermal expansion

Allow for 1% expansion along a length of Qual-PEX/Qual-PB when going from 20oC to 82oC. In some cases with very long lengths of pipe, expansion loops may be required

## Clipping

Pipe clips and trunking designed for use with copper tube may be used with the Tectite/Qual-PEX/Qual-PB system. Clips should be positioned adjacent to fittings but not closer than 50mm to the end of the release collet making due allowance for expansion and contraction of the pipework.

Where Qual-PEX/Qual-PB pipe is to be surface mounted and visible the following clipping distances are recommended:

Pipe Size	Horizontal Direction	Vertical Direction
1/2"	300	500
3/4"	500	800
1"	800	1000

Where Qual-PEX/Qual-PB is not seen e.g. under floors, clipping distances can be increased to one metre intervals. Even if Qual-PEX/Qual-PB dips slightly between joints, the speed of water flow should be sufficient to eliminate any air bubbles.

## Bending

For sharp bends, standard elbow fittings can be used. For slower bends it is possible to use the flexibility of the pipe to produce a bend which can be clipped into shape, or tighter still with a 15mm cold forming bend, subject to the following limits:

Pipe Size	1/2"	3/4"	1"
Min Radius with Clips	175mm	225mm	300mm
Min Radius with Cold Forming Bend	90mm		

## Buried Pipework

The Tectite/Qual-PEX/Qual-PB system can be laid in concrete and masonry providing they are installed in conduit pipe with access boxes for the fittings. This is to enable the pipe to expand and provide accessibility for both pipe and fittings.

## Gas, oil, compressed air pipelines

The Tectite/Qual-PEX/Qual-PB system must never be used to carry gas, oil or compressed air.

## Vermin

The Tectite/Qual-PEX/Qual-PB system will need special protection in vermin infested areas.

## Electrical connections

As the Tectite/Qual-PEX/Qual-PB system is a totally thermoplastic system, it is an electrical insulator and not suitable for earthing electrical appliances.

## Insulation of pipes

Under intermediate floors, lagging is not required, but insulation should be used where the Tectite/Qual-PEX/Qual-PB system is run in unheated spaces, both for frost protection and energy conservation. Although heat loss from Qual-PEX/Qual-PB is less than metallic pipes and Qual-PEX/Qual-PB is resistant to bursting down to -20oC, the insulation must comply with BS 6700 and BS 5422, as for copper pipe. Although floor screeds and cement have no adverse effect on Qual-PEX or Qual-PB pipe, it is advisable to thermally insulate the pipe in ground floors to reduce heat losses.

## Connections to other systems

Where necessary or where it is unavoidable, i.e. in renovation work, connection to other pushfit systems is possible provided the fittings and pipe are manufactured to BS 7291 Class S, and that the correct pipe inserts are used.

## Pipe Sizing

BS 6700 specifies the method to be applied for accurate pipe sizing according to Lamont's Smooth pipe formula.

In general Qual-PEX/Qual-PB can be considered to perform the same as copper tube with the same nominal O.D.

## System Flushing

Every Tectite/Qual-PEX/Qual-PB system should be flushed through completely to remove any dirt or residues in the system, prior to system operation.

## Use of Inhibitors

Quality Plastics recommends the use of corrosion inhibitors according to manufacturers' instructions although Qual-PEX/Qual-PB barrier pipe dramatically reduces the possibility of corrosion of ferrous parts in the system.

## Resistance to U.V.

The Tectite/Qual-PEX/Qual-PB system is not designed for use in continuous sunlight. It has limited U.V. resistance to allow the product to be safely stored outside, in its protective packaging. If it is required to use the product outside, it should be ducted or lagged completely.

## Painting

Qual-PEX/Qual-PB can be painted with oil or water-based paint. No cellulose based paints and thinners should be used.

## Boiler Connections

A minimum of one metre of copper pipe must be installed between the boiler and the Tectite/Qual-PEX/Qual-PB thermoplastic system and all pipework between the boiler and the safety valve should be in copper.

Care should be taken to ensure that all boiler installations have the necessary control and safety devices to ensure that the operating limits laid down in BS 7291: Parts 1, 2 & 3 are not exceeded. Boilers must have a high limit stat to protect pipework in the event of boiler malfunction and a permanent bypass circuit should be incorporated in the system to allow the pump to dissipate residual heat.