Resin Injection Anchors – in hollow materials

1 INTRODUCTION
This method statement is a guide only and applies to most types of injection resin intended for use in hollow masonry, i.e. (brickwork and blockwork). Brickwork is used only as an example. The manufacturer’s data and installation instructions may differ and must take precedence.

2 BASE MATERIAL SUITABILITY
Resin injection systems are ideal for use in hollow materials such as perforated bricks, hollow blocks and hollow core concrete beams - the perforated or mesh sleeves control the resin which bonds with substrate adjacent to it and forms an interlock in any void. For use in solid masonry see the SMS “Resin Injection Anchors - in solid masonry”.

3 INSTALLATION
Before installation check a) that all safety equipment is to hand b) that the components to be used are as specified and the resin is suitable for use in solid masonry. [Only substitute another make or type if approved by the responsible engineer.] c) that the resin cartridge is in date as shown on the packaging and d) that ambient temperature is within useable range.

Drill to correct Diameter & Depth. This may break though in perforated bricks, this is no problem.

Clean hole thoroughly by: brushing x 3

Insert mesh sleeve

Insert cartridge in dispenser & attach mixer nozzle. Pump first two trigger pulls to waste to ensure even mix.

Pump resin to base of sleeve withdrawing nozzle slowly to avoid entrapping air. Fill sleeve completely & close cone.

Insert anchor rod through cone immediately using twisting motion to coat threads thoroughly. Adjust position within “Gel time”. Wipe any excess resin from surface.

Allow curing time - depends on temperature.

Apply fixture carefully over studs. Tighten to recommended torque*, DO NOT OVERTIGHTEN.

For use in overhead situations check that the resin is suitable (most are). The centralising cone helps retain the resin in the sleeve until the rod is inserted. It must then be supported until cured.

Gel time = time after injection during which the anchor rod must be inserted.

Curing time = time after injection during which the anchor must be left undisturbed before it is tightened or loaded. In damp substrates increase curing time.

From finger tight it will take less than one full turn to reach the recommended torque* see over.
CFA Sample Method Statement: Resin Injection Anchors – hollow materials

Information you will need:

- Cartridge specification
  - Make ........................................
  - Type ......................................
  - Order code ................................

- Anchor Rod specification
  - Diameter M ..............
  - Length ..............................
  - Order code ..........................
  - Finish ...............................

- Mesh sleeve specification
  - Description .........................
  - Order code ..........................

- Fixture thickness ................ mm
- Hole diameter ................. mm
- Hole depth ...................... mm
- Tightening torque* ................ Nm

* If tightening torque is quoted only for concrete this may be excessive for use in hollow material. Reduce torque in proportion to the reduction in base material strength or the reduction in recommended load from concrete to hollow material.

Equipment you will need:

- Drilling machine SDS+
  - Drill bit Diameter ................ mm
  - Working length ................... mm

- Cleaning brush
- Applicator gun
- Mixing nozzles
- Torque wrench for installation torque above
- Deep reach socket Width across flats ........ mm

<table>
<thead>
<tr>
<th>Thread diameter</th>
<th>M8</th>
<th>M10</th>
<th>M12</th>
<th>M16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical width of nut/socket – across flats mm</td>
<td>13</td>
<td>17</td>
<td>19</td>
<td>24</td>
</tr>
</tbody>
</table>

This Sample Method Statement is one of a series available free of charge from the Construction Fixings Association. A comprehensive Guidance Note: Resin Bonded Anchors is freely downloadable from the CFA website at www.fixingscfa.co.uk.

installer Training. A comprehensive presentation “Anchor installation” is available on CD-Rom for a charge from the Secretary. Training courses are also available for specialist contractors to a syllabus approved by the CFA leading to certification as competent installers of anchor systems.

For more details logon and go to “Safer Installations” page.

Note: This guidance is given in good faith, however the Construction Fixings Association can accept no liability for adverse consequences arising from this guidance being followed.