



Certificate No: 3908

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## Installation Guide

### CAVITY WALL TIES

#### **IMPORTANT HEALTH AND SAFETY INFORMATION:**

#### **PLEASE READ:**

There is a risk of injury if wall ties are left protruding from a single wall leaf before the second leaf is constructed. Site managers should make all workers and visitors aware of this risk.

#### Density & Positioning

For walls in which both leaves are 90mm or thicker, ties should be used at not less than 2.5 per square meter (900mm horizontal x 450mm vertical centres). This guidance is applicable for cavities up to 300mm. Maximum wall tie spacing may need to be reduced in wider cavities, generally to 600mm horizontal x 450mm vertical centres (3.7 ties per square meter).

Ties should be evenly distributed over the wall area, except around openings, and should preferably be staggered.

At the vertical edges of an opening, unreturned or unbonded edges, and vertical expansion joints, additional ties should be used at a rate of one per 300mm height, located not more than 225mm from the edge.

#### Length of Tie & Embedment

Wall ties should be of the correct length to ensure they are properly embedded in the masonry. The length should take site tolerance into account for both cavity width and centring of the tie. We recommend tie lengths which achieve an embedment of between 62.5mm and 75mm. Recommended Wall Tie Length

Cavity width (mm)	Tie Length (mm)
50-75	200
76-100	225
101-125	250
126-150	275
151-175	300
176-200	325
201-225	350
226-250	375
251-275	400
276-300	425

#### Installation Guidance

Wall ties are important to the stability of masonry and failure to install them correctly may lead to damp penetration, cracking or even the collapse walls.

Wall ties should be pressed down in fresh mortar. They should be surrounded by mortar and not simply positioned directly onto masonry with mortar placed around them.

Ideally, ties should be installed with a slight fall to the outer leaf, not towards the inner leaf as this could provide a path for moisture to cross cavity.

The drip part of the tie should point downward and be positioned near the centre of the open cavity. Ties with multiple drips can often be positioned centrally as part of the drip will normally be near the centre of the open section of a partial fill cavity. Installed ties should be clear of mortar droppings to allow the drip to function and prevent water from crossing to the inner leaf of masonry.

The practice of bending up installed wire ties should be discouraged. This can adversely affect the performance of the tie and weaken the embedment in the inner leaf. To ensure cavity wall ties are effective at tying the leaves together they should be installed as the inner leaf is constructed and not simply pushed into a joint.