

Easi-Fix Helical Drive Tie



The Easi-Fix Helical Drive Tie is installed using a proprietary setting tool for use with an SDS rotary power drill to drive and countersink the tie. The helical design allows the tie to be driven quickly and easily into a pre-drilled pilot hole. As the tie is driven into the substrate, the fins of the tie undercut the masonry to provide an expansion-free anchorage that will withstand tension and compression loads.

Once installed the Easi-Fix Helical Drive Tie provides a mechanical connection between a masonry façade and its backup material or between multiple widths of brick.

Selection of Tie Lengths

To determine the required cavity wall tie length simply add the penetration depths of each leaf to the width of the cavity and round up to the 25mm increment (e.g. Brick to brick with a 50mm cavity).

External Leaf 100mm – 15mm recess from the external face = 85mm + Cavity 50mm + Internal leaf minimum embedment depth 70mm = 205mm – use a 225mm tie.

Cavity Wall Tie Spacing

1. Masonry wall ties - 900mm x 450mm staggered centres in a domino 5 pattern (2.47ties/m²)
2. Timber frame ties - 600mm x 450mm centres following the line of timber frame (3.7ties/m²)

In both cases, additional ties should be placed at 300mm centres (225mm for blockwork) adjacent to open reveals.

Description

The Easi-Fix Helical Drive Wall Tie is a 304 stainless steel finned helical tie designed to anchor building façades to structural members, stabilize multiple width brick walls or as remedial wall ties to re-tie a wide range of differing materials like air-crete blocks, clay bricks, stone, concrete blocks and timber studs.

Features

- Austenitic 304 Stainless Steel
- Quick and easy installation
- No mechanical parts
- No resin or neoprene (high fire rating)
- Effective solution for tying cavity and solid walls
- Rapid installation, simply drill and drive
- Low installation costs
- Can be installed through cavity insulation
- Multi water drips across the tie
- High tensile strength with flexibility
- Allows for thermal movement
- Designed and tested to DD140

All Permagard® products are of a high quality and subject to rigid quality control. The company, however, cannot govern the conditions of usage and application of its products and any warranty, written or implied covers material only. The information contained in this leaflet is given in good faith but no liability can be assumed by the Company for any damage, loss, injury or patent infringement arising from its use.

Technical Specification

Material	Austenitic Stainless Steel Grade 304 (1.4301)
Diameter	8mm
Standard Lengths	195mm, 220mm, 245mm, 275mm, 295mm
Pilot Hole Depth	Selected tie length plus 25mm
Pilot Hole Diameter	Diameter of pilot hole to be determined on site - typically 5-5mm -6mm
Fixing Tool	Easi-Fix Helical Drive Tie Basic or Professional SDS Installation Tool

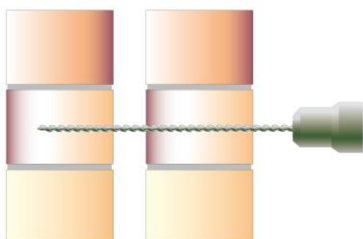
NOTE: Some substrates such as hard concrete and granite, are not suitable for Easi-Fix Helical Drive Tie installation, due to the inability of the tie to cut into the material.

Typical tensile failure in accordance with BSI DD140 Part 1

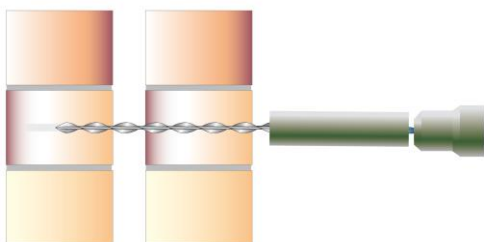
Base Material	Compressive Strength N/mm ²	Tensile Proof Load KN	Minimum Embedment
Clay facing brick	20 - 20.75	3.16	70mm
Deep frogged brick	20 - 20.50	2.98	70mm
Dense concrete block	7 - 10	3.38	70mm
Lightweight block	2.8 - 3.5	1.76	70mm
Mortar bed joint 1:1:6		2.66	70mm

Test provides indicative values of the tie performance. The couplet test produces results of a conservative nature.

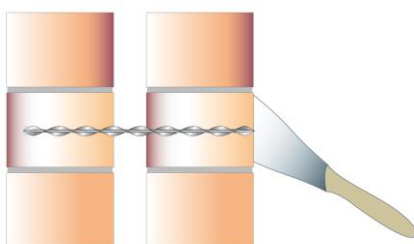
Installation Method



1. Drill the pilot holes through both leaves to required depth and diameter. (Diameter of pilot hole to be determined on site - typically 5-5mm -6mm)



2. Insert the Easi-Fix Helical Drive Tie Installation Tool into an SDS rotary hammer drill, then place the helical tie into the installation tool.
3. Place the drill onto hammer mode only, place the tie into the pilot hole and drive the tie into the internal leaf to the required depth ensuring the tie is fully recessed to the external leaf below the face of the masonry.



4. Make good the hole left in the surface with matching repair material.

All Permagard® products are of a high quality and subject to rigid quality control. The company, however, cannot govern the conditions of usage and application of its products and any warranty, written or implied covers material only. The information contained in this leaflet is given in good faith but no liability can be assumed by the Company for any damage, loss, injury or patent infringement arising from its use.