

Easi-Fix Neoprene Wall Tie



Description

Permagard Easi-Fix Neoprene wall tie is the reliable double mechanical precision pre-torqued tie that sets new standards in replacement wall ties. Its unique special coated black stainless steel precision limited torque nut combined with the precision modified stainless steel bar provides a fixing system which permits:

Features

- Rapid fixing replacement wall tie
- Easy and low cost installation
- Pull out figures of over 2.5 kilonewtons
- Independent pull testing after every inner leaf fixing
- Reliable design and product
- Water resistant anchors
- Allows thermal movement

The combination of the special stainless steel precision limited torque nut and the precision modified bar means that initial rotations of the nut are inhibited by the bar. This allows the bar to rotate and the inner expander to engage with and tighten onto the inner wall leaf.

At the correct pre-designed torque, the in-built resistance offered by the special nut and bar combination is overcome, allowing the nut to rotate down the bar and tighten the outer expander to similarly engage with and tighten onto the outer wall leaf. The quality of fix for the inner leaf can be readily proven by loosening the outer expander through the use of a manual key and securing an industry standard pull tester to the bar. After pull testing has been carried out the outer leaf can be re-tightened.

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 200mm tie.

Cavity Wall Tie Spacing

1. Masonry wall ties - 900mm x 450mm staggered centres in a domino 5 pattern (2.47ties/m²)

Additional ties should be placed at 300mm centres (225mm for blockwork) adjacent to open reveals.

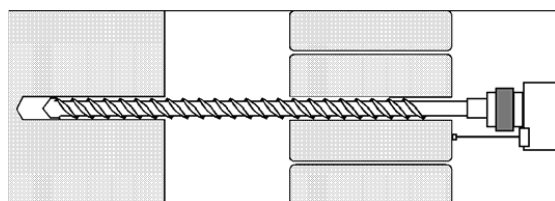
Technical Specification

Material	Neoprene
Diameter	10mm
Standard Lengths	200mm, 213mm, 225mm
Pilot Hole Depth	Selected tie length plus 20mm
Pilot Hole Diameter	Diameter of pilot hole to be determined on site - typically 10mm
Fixing Tool	Easi-Fix Auto Key

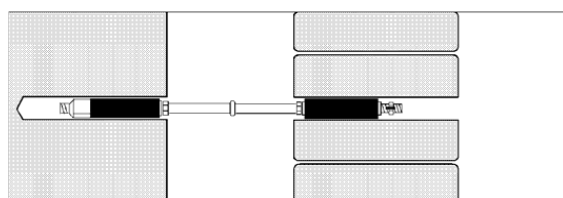
Typical tensile failure in accordance with BSI DD140

Base Material	Compressive Strength N/mm ²	Tie Anchorage (Kn)		Minimum Embedment
		PBB	PNN	
Common facing brick	20-27.5	4.55	4.56	55mm
Deep frogged brick	2.5/m ²	3.32	4.00	55mm
Dense concrete block	2.5/m ²	3.12	4.56	55mm
Lightweight block	2.5/m ²	1.78	1.73	55mm
Mortar bed joint 1:1:6			2.65	

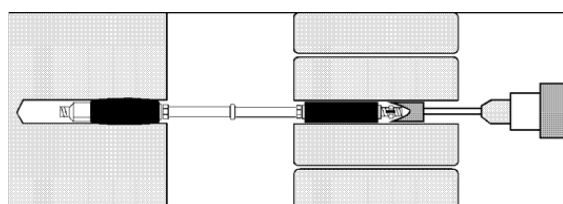
Installation Method



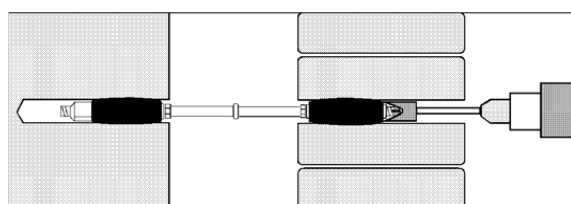
1. Drill a 10mm or 12mm hole to a minimum depth of 55mm into the inner leaf. Remove dust and debris.



2. Insert special Easi-Fix Auto Key into drill and fit over special black torque nut. Run nut slowly down the bar until resistance is met - the tie is now fixed. Do not over tighten. Ideally drills should be run at slow speed and high torque setting for the most efficient fix. For example, a Bosch GSR 9.6 V Cordless Drill should be operated at Speed 1 and torque setting 5 (maximum).



3. To pull test a tie fix the manual outer key over the special black torque nut and turn anti clockwise two revolutions only. This will release the outer leaf and allow the inner leaf which is still fixed to be pull tested. After pull testing has been completed re-tighten the outer leaf with the manual key. Make good with matching mortar or mastic.



4. To put ties in manually fix the manual key onto the special nut and turn clockwise until tie is fitted. Initial resistance will be met then give way temporarily when the nut moves down the bar to engage the outer leaf. This is normal and resistance will again be met whilst the outer leaf is tightening. When fitted remove the manual key.

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