

Thor Drive Bond Tie – Drive fix & resin bonded

TRWT
02

Features

The Thor Drive Bond Tie - combines the benefit of the Drive Tie to the inner leaf and Thor resin bonding to the outer leaf. The Thor Drive Bond Tie's Unique helical design self-taps directly into a small pilot hole drilled into the inner leaf and requires no bonding agent or mechanical expansion. Provides a quick and simple stress free fixing with the minimum of disturbance. Helical design provides multiple drip points and the rotational flexibility accommodates normal building movement. The outer tie is bonded with Thor resin to the outer leaf. Comprehensively used tested and proven.

Application

- For tying and pinning masonry
- Effective in , brick, block, concrete, hard mortar, timber hollow materials and delicate masonry



Method Statement

1. Drill a clearance hole through the outer leaf material using a drill bit of appropriate size.
2. Drill a pilot hole of appropriate size into the inner leaf material.
3. Select the Thor Drive-Bond Tie of appropriate diameter and length to be installed. Ensure the Tie is of sufficient length to achieve a minimum embedment in the inner leaf material of 70mm.
4. Place the Thor Drive Bond Tie into the installation tool, attached to a 2.5KG SDS drill and drive the tie home .
Note. Tensile load testing of the tie should be carried out at this point.
5. Insert the Resi-Stop Sleeve 90mm into the outer leaf.
6. Back fill the outer leaf clearance hole with Thor Poly Resin. Make good the clearance hole using colour matched mortar or mastic.

Recommended Tooling

- A. For drilling a 2.5kg Rotary percussion (3 jaw chuck) drill. Or SDS hammer drill
- B. For tie installation. A Thor Drive Bond Tool attached to a 2.5KG SDS drill.
- C. For outer leaf fixing. A Resin Gun and cartridge will be required.

General Notes

These notes are for general use only. Should these notes not apply to your specific project, please consult the Thor Helical Remedial Technical Support Team on 0870 6006164. Thor Helical Remedial are able to offer a full project design service by either our in house design team or our National network of Approved installers. In most instances this service is provided free of charge. Projects completed by our network of approved installers offer the benefit of a fully underwritten insurance backed guarantee.

TYPICAL TENSILE FAILURE IN ACCORDANCE WITH BSI DD 140 PART 1

| BASE MATERIAL | COMPRESSIVE STRENGTH | 9MM TIE ANCHORAGE | MINIMUM EMBEDMENT |
|------------------------|--|-------------------|-------------------|
| Common 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 – 35. | 1.76 | 70mm |
| Mortar Bed Joint 1:1:6 | | 2.66 | 70mm |
| Pilot Hole 6.5mm | Available lengths mm : 175 ; 200 ; 225 ; 250 ; 275 ; 300 | | |

Test provide indicative values of the tie performance. The couplet test produces results of a conservative nature compared to actual wall tests

SPECIFICATION NOTES

The following criteria are to be used unless specified otherwise:

RE-TYING - Locate and mark in white chalk the position of the old ties using a metal detector. Use these marks to establish the spacing of an alternative grid for the new wall ties.

It is important to ensure that the replacement wall ties are installed before treating the existing ties.

The drilling method adopted must ensure accuracy of the diameter of the hole and avoiding appreciable spalling.

Ties will be fitted into the centre of an external brick wherever possible.

It is imperative that the holes drilled should be to a recognised pattern i.e. diamond grid 900mm between centres horizontally and 450mm vertically. Generally the diamond pattern will commence with the first lines of holes 300mm up from damp proof course and 300mm in from the gable end. In brick columns of 300 mm or less a centre line will be drilled, spacing of 300mm vertically and 250mm horizontally out from the edge of the fenestration.

Existing Tie Treatment

Depending on the specifiers recommendations ties can be isolated by either:-

- A) Uncovering the existing ties, and sleeving the ties in accordance with the Thor sleeve specification. This method has the advantage of containing the works within the mortar bed joint, and is less destructive than alternative methods.
- B) Ties can be cropped or removed. This method requires the removal and replacement of a brick adjacent to the tie.