# Permagard Easi-Fix Helical Drive Ties

#### **Description**

Permagard Easi-Fix Helical Drive Tie is a 304 stainless-steel finned helical tie designed to be used 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

The Permagard Easi-Fix Helical Drive Tie is installed using a proprietary setting tool that is used with an SDS-Plus shank hammer drill to drive and countersink the tie. The helical design allows the tie to be driven quickly and easily into a predrilled pilot hole. As the tie is driven into the substrate, the fins of the tie undercut the masonry to provide an expansionfree anchorage that will withstand tension and compression loads.

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

For installation of Permagard Easi-Fix Helical Drive Ties a light hammer drill is recommended ie no more than 1.5NM impact and not less than 3000 impacts per minute.

#### **Benefits**

- 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



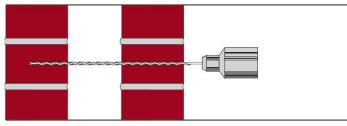
## Easi-Fix Helical Drive Tie Classification DD140

| Material    | Tie Size | Tie Density | Fixing    |
|-------------|----------|-------------|-----------|
| Engineering | 8mm Φ    | 2.5/m²      | Class 2   |
| Bricks      |          |             |           |
| Hard Clay   | 8mm Φ    | 2.5/m²      | Class 2   |
| Bricks      |          |             |           |
| Concrete    | 8mm Φ    | 2.5/m²      | Class 2   |
| Blocks      |          |             |           |
| Soft Clay   | 8mm Φ    | 2.5/m²      | Class 3   |
| Bricks      |          |             |           |
| Timber      | 8mm Φ    | 4.44/m²     | Class 5&6 |
| Studs       |          |             |           |
| Air-crete   | 8mm Φ    | 2.5/m²      | Class 4   |
| Blocks      |          |             |           |

#### **Tie Selection**

|              | Innner Leaf Embedment |       |       |
|--------------|-----------------------|-------|-------|
| Cavity Range | 50mm                  | 70mm  | 90mm  |
| 25mm-50mm    | 170mm                 | 195mm | 220mm |
| 50mm-75mm    | 195mm                 | 220mm | 245mm |
| 75mm-100mm   | 220mm                 | 245mm | 270mm |
| 100mm-125mm  | 245mm                 | 270mm | 295mm |
| 125mm-150mm  | 270mm                 | 295mm | 320mm |

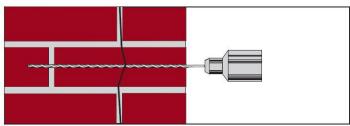
## **Installation Procedure Adding Wall Ties**



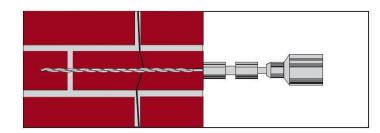
Step 1: Drill pilot hole through outer leaf and then continue pilot hole if required until recommended depth in inner leaf is reached.

Step 2: Insert Easi-Fix Helical Drive Tie into the fixing tool, then position the front of the tie into the pilot hole and drive the tie home. Re-point hole with sand and cement or resin to match the substrate.

## **Installation Procedure Masonry Crack Repair**



Step 1: Drill pilot hole through masonry until recommended depth is reached.



Step 2: Insert Easi-Fix Helical Drive Tie into the fixing tool, then position the front of the tie into the pilot hole and drive the tie home. Re-point hole with sand and cement or resin to match the substrate.

## **Specification**

| Material                  | Austenitic Stainless Steel 304 |
|---------------------------|--------------------------------|
| Ultimate tensile strength | > 15kn                         |
| Buckling strength >100mm  | >4kn                           |

## **Pilot Drill & Embedment Depth Selection**

| Material                | N / mm² | Tie Diameter | Minimum Embedment Depth | Pilot Hole Diameter |
|-------------------------|---------|--------------|-------------------------|---------------------|
| Air Crete Block         | 2.8     | 8mm          | 90mm                    | N/A                 |
| Leca Block              | 3.5     | 8mm          | 70mm                    | N/A                 |
| Concrete Block          | 7.0     | 8mm          | 70mm                    | 5.5mm               |
| Old Soft Brick          | <5.0    | 8mm          | 70mm                    | 5.0mm               |
| Old Med Brick           | <5.0    | 8mm          | 70mm                    | 5.0mm               |
| Most Modern Bricks      | >11.0   | 8mm          | 70mm                    | 5.5mm               |
| Semi Engineering Bricks | 30.0    | 8mm          | 50mm                    | N/A                 |



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