

SPIROTIE

PRODUCT CODE: 3080 – 6mm x 7m (35m pack) 3081—6mm x 2m 3802 – 7.5mm x 2.5m

DESCRIPTION: Spirotie is a versatile masonry fixing product manufactured from stainless steel twisted to form a continuous helix, that provides excellent mortar and grout bonding characteristics. Available in lengths (as shown above), its main advantage is its versatility and ease of use.

AVAILABILITY: Spirotie is manufactured from 7.5mm x 2mm Grade 304 stainless steel strip as standard. The strip is twisted during manufacture to form a continuous helix with 25mm pitch, imparting rigidity and increased mortar and resin bonding characteristics

APPLICATION: 1. **BED JOINT REINFORCEMENT:**

Spirotie is widely used in full 3 metre lengths as bed joint reinforcement and can be readily bent on site to form internal or external corners.

2. **WALL STARTER SYSTEM:**

Cut lengths bent into a 'U' shape are suitable for use as a wall starter system with British Board of Agrément approval for walls abutting new or existing structures.

3. **WALL TIES:**

Short lengths, supplied pre-cut or cut on site to meet requirements, provide cavity wall ties which meet DD140 performance requirements for Type 2 ties in walls with up to 75mm cavities, and Type 3 ties in walls with cavities in the range 75mm to 100mm

4. **SHEAR CONNECTORS:**

For stabilisation and connection of concrete repair mortars and grouts

INSTALLATION: Depends on the various applications described above.

For applications 1 and 2, spiro tie is used either in a conventional mortar bed or in certain cases with Rotafix Cembond code: 3160.

Applications 3 and 4 involve the drilling of appropriate diameter holes, eg 12mm for short anchors, and the installation is carried out in conjunction with Rotafix ROTAFIX STRUCTURAL ADHESIVE and/or ROTASET TC4. Alternatively, for larger diameter, longer length holes upto 2m, Spirotie is used in conjunction with Rotafix Cembond pumpable mortar code 3160.

TYPICAL PHYSICAL CHARACTERISTICS Spirotie nominal 7.5mm wide x 2mm thick u.t.s. 140N/mm²

The requirements for a Rotafix product(s) may be specific for an individual project. Advice given by Rotafix can only be considered as part of the contract if it is provided in writing.

The information in this document is based on practical tests, but given without guarantee inasmuch as methods of use by others is beyond our control. Due to continuing development and improvements, it may be necessary to change without notice the material specification. All goods are sold subject to our Standard Conditions of Sale.

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TABLE A Tie selection			
Inner Leaf Embedment			
Cavity Range	50mm	70mm	90mm
25mm to 50mm	170mm	195mm	210mm
50mm to 75mm	195mm	220mm	235mm
75mm to 100mm	220mm	245mm	260mm


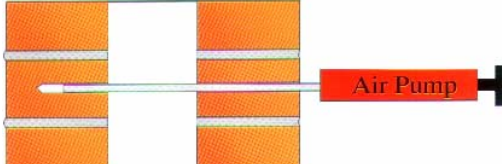
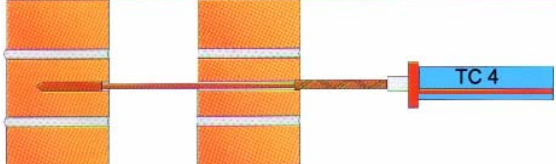
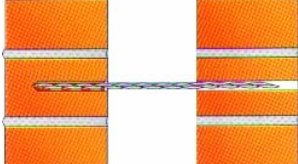
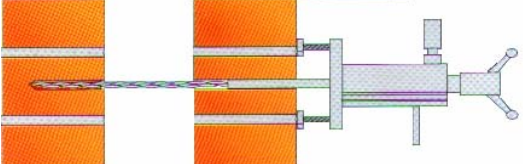

Remedial wall tie system with a resin fixing of the inner and outer leaf

Spiroties are manufactured from 304 stainless steel strip as standard (7.5mm x 2mm). The strip is twisted during manufacture to form a continuous helix with 25mm pitch, imparting rigidity and increased mortar and resin bonding characteristics.

The Spirotie can be cut to a suitable length on site to meet most requirements. The Spirotie will meet DD140 performance requirements for Type 2 ties in walls with up to 75mm cavities, and Type3 ties in walls with cavities in the range 75mm to 100mm. Spirotie gives multi water drips stopping water transfer across cavities.

Performance data				
Cavity Width mm	Tie Length mm	Tie classification To DD140	Characteristic strength (Kn)	
			Tension	Compression
50	195	Type2	2.20	3.85
75	220	Type2	1.98	3.69
100	245	Type3	1.50	2.69

TABLE B pilot drill & depth selection		Inner leaf		Outer leaf		
Material <i>(Ultimate Loads and a suitable safety factor should be applied)</i>	Tie size	Minimum Embedment Depth	Pilot hole diameter	Minimum Embedment Depth in Resin	Clearance hole diameter	
Air Crete block	3.0 N/mm ²	8mm	90mm	N/A	70mm	12mm
Concrete block	7.0 N/mm ²	8mm	70mm	4.5mm	70mm	12mm
Old soft brick	< 5.0 N/mm ²	8mm	70mm	4.5mm	70mm	12mm
Most modern bricks	20.0 N/mm ²	8mm	70mm	4.5mm	70mm	12mm

 <p>1. Drill clearance hole through outer leaf and 70mm into inner leaf.</p>	 <p>2. Clear both holes of any dust or debris.</p>
 <p>3. Fill inner hole with TC4 or Rotafix Structural Adhesive resin.</p>	 <p>4. Insert Spirotie</p>
 <p>5. Load test Spirotie.</p>	 <p>6. Fill clearance hole with TC4 or Rotafix Structural Adhesive to bond tie to outer leaf.</p>