

Masonry Crack Stitching System

Description

- High tensile 304 grade stainless steel helical reinforcing bars.
- Tensile strength twice that of rebar.
- Use with WHO-60 high performance grout.
- Independently performance tested and CE marked.

Applications

Reconnects and strengthens cracked brickwork.

Benefits

- Deep interlocking helix offers excellent bonding characteristics.
- Increases tensile and shear strength of masonry.
- Accommodates thermal and moisture movement.
- Absorbs stress to redistribute load.
- Minimal disturbance and fully concealed repair.
- Quick, reliable and cost effective.

PRODUCT SPECIFICATION

Thor Helical crack stitching bars are available in 5, 6, 7, 8 and 9mm diameter, in standard lengths of: 1m and 2m

Grind out mortar bed to a depth of 30mm for half brick wall or 40mm full brick wall, 500mm either side of the crack.

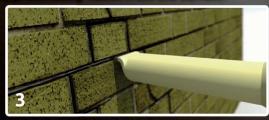


Step 2 Clear debris from the slot and thoroughly flush out with water.

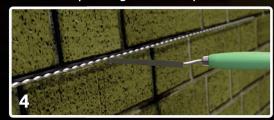


Step 3

Pump a bead of WHO60 grout to the back of the slot to approximately 10mm from the surface.



Push Thor bar half way into the grout-filled slot, trowel back displaced grout and repoint.



CRACK STITCHING



BS EN 845-1:2013 National Annex NA states that the bars need to provide an equivalent performance to the prescriptive 30mm x 5mm lateral restraint straps and the tension straps should have a declared mean tensile load capacity of at least 8kN.

TYPICAL TENSILE PERFORMANCE – CE MARK TESTING TO BS EN 845-1

Thor Helical Bed Joint Reinforcement in WHO-60 Grout					
Bar Diameter	No. of Bars per Joint	Mean UTL (kN)	Mean Load at 2mm Deflection		
6mm	1	8.39kN	6.26kN		
7mm	1	9.57kN	6.41kN		
8mm	1	11.06kN	8.73kN		
9mm	1	11.50kN	8.40kN		
6mm	2	16.00kN	10.86kN		
7mm	2	17.65kN	11.99kN		
8mm	2	17.65kN	10.67kN		
5mm	3	14.34kN	6.89kN		

Depth of test slot: 30mm for single bar - 40mm for multi-bars

Height of test slot: 3mm greater than diameter of crack stitching bars

Mean Tensile Capacity is an indicative value derived from CSA x Mean UTS

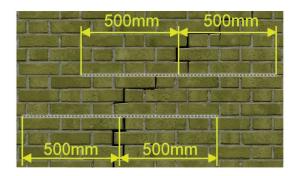
Position of test bars: 400mm embedment with multiple bars space 10mm apart.

TYPICAL PROPERTIES OF THOR HELICAL BARS					
Diameter	CSA (mm²)	0.2% Proof Stress	Ult Tensile Strength*	Mean Tensile Capacity #	
5mm	6mm²	>880N/mm2	1025-1225N/mm2	7kN	
6mm	8mm²	>870N/mm2	1025-1225N/mm2	9kN	
7mm	10mm²	>880N/mm2	1025-1225N/mm2	11kN	
8mm	13mm²	>790N/mm2	1025-1225N/mm2	11kN	
9mm	16mm²	>850N/mm2	1025-1225N/mm2	17kN	
Jltimate Tensile Stre	ngth is measured within a	a calibrated tolerance of +/- 2%		•	

12N/mm²

13kN/mm²

TYPICAL PROPERTIES OF WHO-60 Grout **Physical Properties** Strength Compressive Strength – 7 days 35N/mm² Compressive - 28 days 55N/mm² Tensile Strength – 28 days 5N/mm²



Flexural Strength – 28 days

Young's modulus (fully cured)