



CONCRETE CRACK LOCK

Carbon-Fibre Crack Bridging Stitch

High Strength

Non-Corrosive

Alkali Resistant

Minimal Aesthetic Impact



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DESCRIPTION

The Concrete Crack Lock (CCL) is a revolutionary new product that was developed to improve concrete crack repair. The CCL is installed by making a single blades width cut across the crack and drilling two holes along the cut at the appropriate locations. Once the preparation is complete and free of dust, it is filled with an approved ARDEX Epoxy Paste such as ARDEX RA 88 (for vertical applications) or ARDEX RA 142, ARDEX RA 144 or ARDEX RA 146 (for horizontal applications) and the CCL is inserted. Once installed, the CCL permanently bonds both sides of the crack together. Due to the unique shape of the CCL and the preparation in the concrete, the tensile strength of the carbon fiber is relied upon as well as the epoxy bond strength along its length.

TYPICAL APPLICATIONS

The Concrete Crack Lock has been engineered to stop cracks in concrete slabs, poured walls, masonry, concrete block foundations, columns, industrial buildings, bridges, and foundations. The Concrete Crack Lock system is designed for cracks of various sizes under virtually any circumstance. It can also be used to increase seismic strength to repairs after an earthquake.

ADVANTAGES

- High Strength
- Non-Corrosive
- Alkali Resistant
- Minimal Aesthetic Impact

PREPARATION

The surface of concrete must be clean and free of loose debris. Lay out the individual crack locks by marking the crack every 200 to 300mm. Then, trace the crack locks at each location and orient them at roughly 90 degrees to the crack. Vary the angle at each location slightly to reinforce the crack from moving in all directions.

Once the layout is complete, cut across the crack ensuring that the cut is at full depth for the entire length. The blade should be set at around 12mm deep to allow sufficient cover over the CCLs. Once the cuts are made, mark the ends along the cut and drill 13mm holes at each end.

APPLICATION

Clean all loose debris from the preparation and fill with an approved ARDEX Epoxy Paste such as ARDEX RA 88 (for vertical applications) or ARDEX RA 142, ARDEX RA 144 or ARDEX RA 146 (for horizontal applications). Once the preparation is filled with epoxy, insert the Concrete Crack Lock and scrape any excess epoxy off of the surface. This material can be worked into the crack between the CCLs. The crack needs to be filled by this method or by injection to stop any movement between the opposite sides of the crack.

TOOLING & FINISHING

Any tool that will accept a diamond saw blade suitable for cutting concrete will work to make the cuts across the crack. A tuck point grinder or slotting tool with dust shroud works best to minimise dust while allowing to set the depth of the cut. Use any hammer drill with a 13mm diameter masonry drill bit to drill the holes. Larger bits can be used but will require additional epoxy to fill the larger holes.

Pay Attention To The Following:

Design calculations must be made and certified by an independent licensed professional engineer.

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TECHNICAL DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

Storage Conditions	Store dry at 4° - 35°C
Shelf Life	10 years
Color	Black
Primary Fiber Direction	unidirectional

FIBRE PROPERTIES

Tensile Strength	4900MPa
Tensile Modulus	250GPa
Strain	2%
Density	1.79 g/cm ³
Nominal Fiber Thickness	0.4445mm

CRACK LOCK PROPERTIES

Tensile Strength	1241MPa
Web Thickness	1.40mm
Web Width	10.67mm

GUARANTEE

ARDEX Australia Pty Ltd ("we" or "us") guarantees this product ("our goods") is free from manufacturing defects and will perform to any applicable specification published by us for 10 years from the date of purchase. Our liability under this guarantee is limited at our option to replacement of the product, repair of any damage to the immediate surface or area of application of the product, or compensation, in each case if we are satisfied loss or damage was due to a breach of this guarantee. This guarantee does not apply if damage or loss is due to failure to follow published instructions or any act or circumstance beyond our control, including shade variations and efflorescence. If you wish to make a claim under this guarantee you must notify us (ARDEX Australia Pty Ltd, 20 Powers Road Seven Hills NSW 2147; Toll Free: 1800 224 070; Email: technicalservices@ardexaustralia.com) and provide evidence of your purchase of the product within 30 days of any alleged loss or damage occurring. We reserve the right to ask you for satisfactory evidence of any alleged loss or damage. Any claim under this guarantee is at your cost. This guarantee is in addition to any rights or remedies you may have as a "consumer" under the Australian Consumer Law and to that extent you need to be aware that: "Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss of damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure".

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