

CONFIL GROUTS

Polyester Resin Anchor

Description

Confil Grouts are formulated on polyester resins designed for quick and easy mixing. Available in two grades, these quick curing grouts are designed for anchoring fixings into concrete, masonry, brickwork etc., in both vertical and horizontal planes. Also suitable for many other types of grouting and bedding work.

Grades Available

Confil Grout: Pourable grout for free flow grouting.

Confil H.P. Grout: A thixotropic grout for use with a mastic gun for horizontal and inverted fixings.

Applications

- Fixing starter bars, dowels.
- Fixing crash barriers, railings and parapets.
- Grouting in airport runway lights and cable ducts.
- Underwater fixings.
- Grouting in tiles and mosaics.
- Fixing pandrols on rail tracks.
- Grouting in holding down bolts on machinery, pylons, masts etc.

Advantages

- Quick curing combined with rapid bond strength gain.
- Available in a standard set or rapid set for winter or cold temperature working.
- Quick, easily mixed and applied.
- High compressive, tensile and flexural strengths.
- Economical - quantities mixed as required.
- Excellent chemical and water resistance.
- Available in Standard and Rapid set.

Technical Information

Data On Pourable/HP Grout Cubes Cast and Cured at 20°C

Typical results of compressive strength development given in N/mm². Cubes were 40mm tested in accordance with BS6319 Part 2.

2 hrs	18 hrs	24 hrs	48 hrs	3 days	7 days
80	102	103	104	105	111

Ultimate Compressive Strength (BS6319:Pt2):	120N/mm ²
Tensile Strength (BS6319:Pt 7):	11.5N/mm ²
Flexural Strength (BS6319:Pt3):	28N/mm ²
Secant Module of Elasticity in Flexure (BS6319:Pt3):	13GN/m ²
Pot Life - Standard Grade:	30 mins @ 20°C
Pot Life - Rapid Grade:	20 mins @ 20°C
Yield:	520cc/kg

The bond strength of Confil Grout is dependent on several factors, the main ones being:

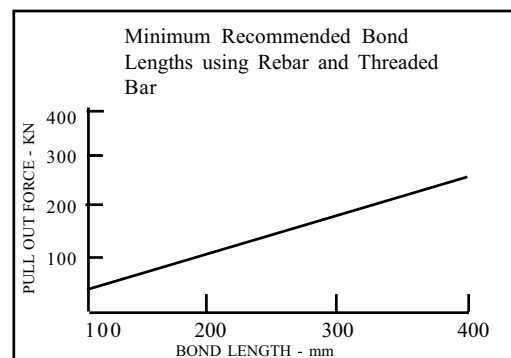
- Strength of base material.
- Method of drilling hole.
- Type of fixing.
- Resin bond length.

Typical results using high yield ribbed steel bars. Holes drilled using a rotary percussive drill.

Drill Bit Diameter	Bar Dia.	Bond Length	Age Of Test	Pull Out Strength	Failure Type
20mm	16mm	200mm	24 hrs	100 KN	Bar Yield
32mm	25mm	280mm	24 hrs	181 KN	Bar Yield
50mm	40mm	770mm	24 hrs	555 KN	No failure

Typical results using 25mm dia black steel smooth bar. Holes drilled using a rotary percussive drill.

Drill Bit Diameter	Bar Dia.	Bond Length	Age Of Test	Pull Out Strength	Failure Type
32mm	22mm	595mm	24 hrs	181 KN	Bond failure



Surface Preparation

All surfaces should be free from oil, grease, chemical contamination and all loose material. Oil and grease can be removed using Desolve. Concrete should be scarified or etched using Chemclean Acidic Cleaner to remove any laitance. Steel surfaces should be grit blasted to remove all rust and scale. All surfaces should be free from standing water, however, the material can be used underwater providing care has been made to remove all contamination from the bond interface.

Holes should be drilled to the required depth and diameter using a rotary percussive drill and all dust and debris removed using either compressed air or a bottle brush. For grouting under machinery etc., it will be necessary to use shuttering and construct a simple hopper system to give the grout a "head" of material enabling it to flow under the machinery.

Mixing

Remove the can of Confil Resin and the bags of hardener/aggregate contained within the plastic mixing bucket. In the large pack there are ten small bags of hardener/aggregate and a resin measuring cup for use where smaller quantities are required to be mixed. Pour the required amount of resin into the mixing bucket and add the hardener/aggregate slowly with continuous mixing until a trowelable consistency is achieved. Large quantities should be mixed in a suitable mechanical mixer such as a Creteangle or Mixal.

Care should be taken not to mix more than can be used within the setting time of the material.

Application Instructions

If shuttering is to be used a suitable silicone or wax based Release Agent should be used to avoid sticking of the Confil Grout.

For grouting under machinery etc., the grout should be passed from one side only via the feed hopper, it is important that this is a continuous feed so if more than one mix is required this must be carefully planned to regularise the feeding of the hopper.

Where grouting is being poured into fixing holes, the grout should be poured slowly and carefully to prevent air entrapment. The fixing should then be inserted slowly down into the resin and checked for full bonding. Leave the fixing undisturbed until the grout has cured.

H.P. Grout

When utilising a hand pump for horizontal or inverted fixings, the pump should be filled with grout and a tube introduced into the full depth of the hole. Slowly place the grout in the hole whilst withdrawing the pump and tube. Push the fixing slowly into the grout and check for bonding then leave undisturbed until the grout has cured. All equipment should be cleaned immediately after use with Nuwash.

Packaging

Confil Grouts are available in 2.0 litre and 10 litre units.

Storage

Confil Resin is highly inflammable 31°C (88°F) and due precaution should be taken when handling and storing this material. Shelf life is approximately 12 months when stored correctly in sealed containers. However, at higher temperatures this period will be reduced. Store away from foodstuffs and out of the reach of children.

Health & Safety

Confined areas should be well ventilated and do not smoke or allow naked flames during use. Confil Grout, like similar products, is capable of irritating unprotected sensitive skin, we therefore recommend the use of gloves and a suitable barrier cream.

Limitations

For use below 5°C consult our technical department. Certain types of brickwork can cause inadequate curing, therefore trials should be carried out to evaluate the materials performance.

Caution

Where the diameter of the hole is more than 20mm greater than the bolt diameter then we recommend the use of Epicon Grout 'M', 'L' or Epicon Grout 'H' for horizontal fixings.

Technical Support

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors.

Technical representatives are available throughout the UK to provide further information and arrange demonstrations.



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