



FORMFIX

Resin Based Construction Materials

RESOFORM PIN GROUT CARTRIDGE

RESOFORM Pin Grout Cartridges give a rapid curing 'one shot' two part chemical anchor. Based on polyester resin it is mixed and placed in a single action to provide a tough, chemical resistant, cost effective fixing. **RESOFORM Pin Grout Cartridges** are ideal for close-to-edge applications and also for narrow annulus filling.

RESOFORM Pin Grout Cartridges are filled with a flowing polyester grout that will fill narrow apertures from the mixer nozzle of the cartridge.

Applications

- Fixing studs or bolts in wide range of substrates
- Fixing wall ties
- Securing hollow base walling using studs or sleeves
- Anchor setting

Preparation

- 1 Drill hole to the correct diameter (see chart for guide), ideally using a rotary percussion drill. For optimum results the hole should be rough sided. If the holes are drilled using a diamond drill the surfaces should be thoroughly roughened.
- 2 Remove all dust and debris from the hole using a hand air pump or stiff rotary brush.
- 3 All bars or anchors should be clean and free from oil or grease and all flaking rust should be removed. Threaded rod or stud should be chisel ended to prevent them from being unscrewed from the cured resin.

Application

- 1 Attach the mixing nozzle to the cartridge and screw down hand tight.
- 2 Place cartridge in a Skeleton Gun.
- 3 Open the cartridge by pressing the green end of the colour coded valve. Gradually pressurise the cartridge by pulling the skeleton gun trigger a few times until material passes through the mixing nozzle. Stop pumping and allow the material to flow until an even colour is obtained. (Approximately 150-200mm of material should be adequate).
- 4 Press the red end of the valve to close the flow. Insert the nozzle into the base of the hole. Open the valve again by pressing the green end and activate the trigger, withdraw the nozzle as the hole fills.
NOTE. Once material has started to extrude through the nozzle over pressurising the system will not increase the flow rate and can cause leakage from the back of the cartridge.
- 5 Once the required fill is achieved shut off the valve and wipe off excess material. Immediately insert the fixing with a rotating action to the required depth. Once all applications have been carried out or there will be a significant break, release the pressure by pressing the slide release arm on the back of the trigger stop and pulling back the slide rail. Remove the used mixing nozzle and wipe away excess material from the end of the cartridge.

Technical data

Temperature (°C)	Gel Time (mins)	Cure Time (mins)
5	12	240
10	9	180
15	6	150
20	5	120
25	3	60

Cure Time is the recommended minimum time before significant loading.

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Resin-Based Construction Materials**Ultimate Physical Properties**

Tensile Strength	(ASTM 638)	> 10 MPa (N/mm ²)	Compressive Strength	(ASTM 695)	48 MPa (N/mm ²)
Flexural Strength	(ASTM 790)	20 MPa (N/mm ²)	Elastic Modulus		4206 MPa (N/mm ²)
Mixed Density		1.65 Kg/l	Flexural Modulus		3238 MPa (N/mm ²)

Anchor Size (mm)	Hole Diameter (mm)	Hole Depth (mm)	Tension (KN) Ultimate pull out	Fixings per unit (Holes filled 2/3 full)
8	10	80	23.7	90
10	12	90	25.7	56
12	14	110	43.3	34
16	18	125	53.7	18
20	22	150	58.3	10

Tension figure based on BS 5080 Part I in 63 MPa concrete blocks (300x300mm). For 16 and 20mm anchors, failure was of concrete.

Cleaning of Equipment

Clean with **RESOKLENS** immediately after use. Do not allow material to set hard on equipment before cleaning.

Storage

Keep all containers sealed when not in use and protect from damp and heat. Do not expose to direct sunlight. Stored under correct conditions hardener has an indefinite shelf life and resin will have a shelf life in excess of six months.

Health and Safety

Resin contains styrene and is flammable. Do not permit smoking or naked flame and maintain adequate ventilation in the vicinity of the working area. Avoid contact with skin and eyes by use of protective clothing and goggles. If skin contact should occur, remove material with paper towel, apply a resin removing cream and wash with soap and water. Never use solvents for cleaning skin as it will have a de-fatting effect. If contact with eyes should occur irrigate immediately with copious quantities of clean water and seek medical attention without delay.

Reference should be made to the separate **RESOFORM PIN GROUT CARTRIDGE** Health and Safety literature.