

Fast-set polyester resin compound
for anchoring and fixing

weber.tec anchor grout

certite pourable anchor grout



Uses

- Vertical anchorage of bolts and fixings to building and civil engineering work
- Fixings to concrete structures
- Anchor dowel bars to pavements and slabs

About this product

weber.tec anchor grout is a two-component polyester resin and special catalysed filler that has been developed for anchoring and fixing. The pourable grout is suited for pouring into holes for anchors in floors and slabs. **weber.tec anchor grout rapid** is available for cold weather working.

Features and benefits

- ▲ Fast setting action with rapid strength gain allows loads to be applied within 2 hours
- ▲ Easy to mix and place
- ▲ Fixing cannot be vibrated out
- ▲ Economical fixing compared with mechanical fixings
- ▲ Stronger than concrete in one hour
- ▲ Part mixing of **weber.tec anchor grout** allows flexibility of use and no wastage of material
- ▲ Versatile material with fixings to concrete, brickwork and stone: one material for the project

Technical data

The following test results were obtained in laboratory conditions at 20°C.

Compressive strength	1 hour	80 N/mm ²
	4 hours	95 N/mm ²
	24 hours	110 N/mm ²
Tensile strength	24 hours	12 N/mm ²
Flexural strength	24 hours	28 N/mm ²
Bond strength to concrete	Failure in the concrete.	

Approximate time to initial set

Ambient temperature	Standard grade	Rapid grade
0°C	–	40 – 45 minutes
5°C	Do not use below 7°C	25 – 30 minutes
7°C	65 – 75 minutes	22 – 27 minutes
10°C	50 – 57 minutes	17 – 22 minutes
15°C	32 – 37 minutes	12 – 16 minutes
20°C	20 – 24 minutes	Do not use above 17°C
25°C	15 – 16 minutes	–

Initial set times are dependent on ambient temperature relative to whether **weber.tec anchor grout** or **weber.tec anchor grout rapid** is used. The exothermic reaction of the grout components is also influenced by the bulk of material mixed at any one time.

To avoid wastage do not mix more material than can realistically be used within the setting times above. For ambient temperatures above 25°C, contact **Weber** Technical Services.

weber.tec anchor grout

Preparation

Anchoring with **weber.tec anchor grout** is primarily dependent on mechanical interlock and not adhesive bond.

The following points should therefore be observed:

- 1 Create a rough sided dry hole, preferably by rotary percussive drilling. If diamond drilled holes have been made these must be under-reamed or roughened and all dust removed.
- 2 Use fixings such as deformed bars, threaded bars or bolts which have been degreased and are completely free of rust.
- 3 Drill holes which are in the range 4 – 12 mm greater in diameter than the diameter of the bolt or bar. If other dimensions are encountered seek advice from **Weber** Technical Services.
- 4 Ensure a dust-free and dry hole before using **weber.tec anchor grout**.

Mixing

The contents can either be mixed mechanically or, in small quantities, by hand using a flat blade. Pour the resin into a clean bucket and slowly mix in the powder until a smooth, even consistency is attained.

When mixing mechanically use a slow-speed stirrer or an electric drill with a stirring attachment, such as an MR4 blade, operating below 450 rpm.

The ratio for mixing is:

Pourable grade 1 volume of resin:
 3 volumes of
 filler/hardener powder.

Application

When using **weber.tec anchor grout**, simply pour the mixed grout into the hole and insert the bolt or bar into the void with a twisting action .

To avoid excess displacement of grout, and therefore wastage, estimate the quantity per hole in advance. This can be done by referring to the table below.

Strength development

The ultimate strength of the fixing is determined by the following parameters:

- 1 Tensile strength of bar.
- 2 Anchorage bond strength of grout/bar interface.
- 3 Shear bond strength of the grout.
- 4 Shear bond strength of concrete.
- 5 Concrete cone pull-out failure, i.e. shear strength of concrete and spacing.

With good installation, after a 2 hour curing the anchorage will fully sustain its design load at 20°C, provided the anchorage has been designed correctly with sufficient anchorage depth.

The relationship between pull-out and anchorage depth is expressed by the simplistic rule:
 10 kN pull-out force for every 25 mm depth. This rule applies up to depths of 250 mm and the first 50 mm of concrete depth should be ignored due to the possibility of micro cracks in the concrete surface due to the drilling operation.

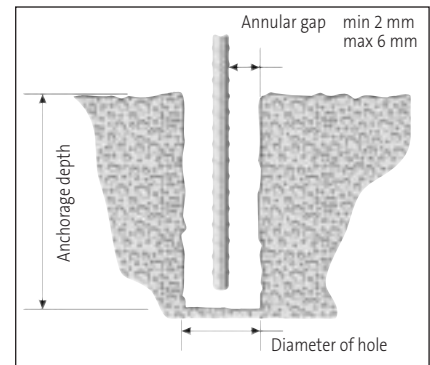
Ultimate pull-out loads should be verified on site with proof load tests to validate the engineer's design calculations.

Volume estimating table relative to bolt and hole diameter

Figures shown are volume of grout in ml per 100mm depth of hole.

Hole dia.	Bolt diameter mm							
	12	16	20	25	32	38	45	51
20mm	20	11						
25mm	38	29	18					
32mm			49	31				
38mm				64	33			
45mm					79	63		
51mm						91	41	
57mm							100	51
64mm								117

NB: The figures given are actual quantity per hole. No allowance has been made for wastage.



Packaging

weber.tec anchor grout is available in 2.5 litre buckets.

Yield

Yield is approximately 2.5 litres.

Storage and shelf life

Shelf life is in excess of 12 months when stored in cool dry conditions.

Health and safety

In its liquid state **weber.tec anchor grouts** are flammable with a flash point of 30°C. The material is easily and safely handled provided working instructions are properly followed and site cleanliness is observed.

Operatives are advised to avoid direct contact by using barrier creams and protective clothing. In the event of contamination the product should be removed with soap and water or proprietary cleansing creams. Working areas should be well ventilated.

For further information, please request the Material Safety Data Sheet for this product.

Technical services

Weber's Customer Services Department has a team of experienced advisors available to provide on-site advice both at the specification stage and during application. Detailed specifications can be provided for specific projects or more general works. Site visits and on-site demonstrations can be arranged on request.

Technical helpline
 Tel: (01525) 722110

Sales enquiries

Weber products are distributed throughout the UK through selected stockists and distributors. For UK sales enquiries and overseas projects, contact **Weber's** Sales office.

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