

High-strength anchoring for horizontal bars or bolts

weber.tec EP TAG

epoxy plus thixotropic anchor grout (EPTAG)



Uses

- Fixing:
 - Dowel bars
 - Starter bars
 - Threaded studding
 - Bolts
- Fixing reinforcement in structural brickwork
- Sealing and gap filling

About this product

weber.tec EP TAG is a specially formulated epoxy resin system for securing horizontal fixings, such as dowel bars, starter bars, threaded studding and bolts into concrete or brickwork. A high-strength, corrosion- and chemical-resistant anchoring is obtained, where speed of installation and early application of load is required. The thixotropic nature of the material ensures that the mixed resin stays in the hole after injection.

Features and benefits

- ▲ Quick and easy cartridge loading with mixed material
- ▲ Large pack economy with the facility of small mixes to minimise wastage
- ▲ Easy to mix and place.
- ▲ Very high strengths – approximately 60 N/mm² at 3 – 4 days
- ▲ Minimal shrinkage – when used in anchoring, the grout remains in contact with all faces of the hole and fixing
- ▲ Can be used for injection of larger cracks in concrete or brickwork where low viscosity resins are not appropriate
- ▲ Thixotropic nature ensures anchor grout remains in the hole
- ▲ Epoxy resin based, able to withstand dynamic and cyclic loading on bolts

Technical data

All tests carried out at 20°C

Compressive strength	1 day	45 N/mm ²
	4 days	60 N/mm ²
	7 days	65 N/mm ²
Tensile strength	7 days	14 N/mm ²
Flexural strength	7 days	30 N/mm ²

The annular gap (half the difference between the hole diameter and the bolt/bar diameter) should not exceed 6 mm.

The relationship between pull-out and depth of embedment is approximately 1 tonne per 25 mm up to depths of 250 mm. This ratio improves with greater depth. The top 50 mm should be ignored in this calculation.

Minimum safety factors of 1.5 in non-critical and of 2 in critical cases must be used for design purposes.

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Preparation

Holes should be made with a rotary percussion drill and must be clean, dry and free from dust. Diamond drilled holes must be roughened.

Bars or bolts must be free of rust, scale, grease, oil or other surface coating or contamination; best results are obtained to freshly-cleaned, bright steel.

For optimum performance smooth bars should be deformed, i.e. threaded.

Mixing

Mechanical mixing is recommended. Use a slow-speed stirrer or an electric drill with a stirring attachment producing 200 to 400 rpm.

If mixing by hand, thoroughly stir the resin with a flat bladed palette knife. Add the hardener and mix together thoroughly before adding the powder filler. Mix until a smooth, even consistency is achieved (approx. 10 minutes).

NB. If smaller quantities are required the mix ratio is 4 resin: 1 hardener by volume. Add filler to suit.

Pot life

The gelation time depends on temperature; a guide is given below, but do not apply below 5°C.

- 5°C: 12 hours
- 10°C: 4 hours
- 20°C: 1.5 hours

These values are very bulk-dependent, particularly at lower temperatures. Large quantities can gel up to 25% faster than suggested. Do not mix more material than can realistically be used within the setting time.

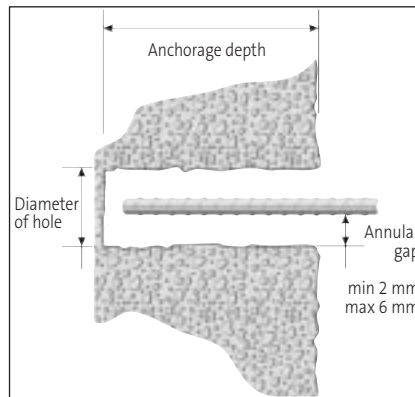
Application

Transfer the mixed grout to the assembled cartridge. Insert the plunger, load the cartridge into applicator gun and then pump the grout into the back of the hole, ensuring that it is completely filled and no voids are left. Leave the grout just short of the face of the concrete and then insert the fixing, using a slight twisting motion to displace the grout. Once the fixing has been placed, do not disturb until the grout has set.

Use **weber.tec solvent 3** to clean all equipment before the material sets.

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

Hole dia.	Bolt diameter mm								
	12	16	20	25	32	38	45	51	
20 mm	20								
25 mm	38	29	18						
32 mm	60		49	31					
38 mm	82			64	33				
45 mm	110				79	63			
51 mm	155					123	91	41	
57 mm	174						141	100	51
64 mm	232							166	117



Packaging

weber.tec EP TAG is supplied in a 6.4 kg pack. Each pack contains 2 tins of resin, 2 bottles of hardener and 2 packs of filler to enable the pack to be split into 2. Follower plates are supplied for ease of filling cartridges.

Yield

Each 6.4 kg pack produces 4 litres resin.

Storage and shelf life

The shelf life of this material is at least 12 months if stored in a cool dry place

Health and safety

Contains epoxy constituents. Refer to information supplied by manufacturer (see Material Safety Data Sheet).

All skin contact with epoxy resin products should be avoided. Barrier creams should be used and operatives should wear protective clothing including gloves. Working areas should be well ventilated.

The hardener content is alkaline and labelled as corrosive. The resin content is labelled as an irritant. The flash point of all components is in excess of 100°C. In the event of fire use foam, dry chemical, carbon dioxide (CO₂) or water fog extinguishers.

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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