



METHOD STATEMENT FOR APPLICATION OF VARAFIX PE – S

Design Criteria

The high Strength of the cured resin permits strong anchors to be created. The ultimate bond strength developed depends upon

- ✓ Strength of host material
- ✓ Length of resin bond to bar
- ✓ Hole preparation and formation
- ✓ Type and dimension of bar

These dimensions for hole and bar diameter, concrete and permitted concrete shear stress are typically as shown in Table 1.

Table 1

Minimum hole depth

Characteristic Concrete Strength (N/mm ²):	20	25	30	40
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Permitted Concrete Shear Stress using type One Bar (N/mm ²):	1.8	2.0	2.2	2.5
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Bar diameter (mm)	Yield (tonnes)	hole diameter	Minimum hole depth (mm)			
12	5.2	20	280	250	225	200
16	9.3	20	490	445	400	355
20	14.5	25	615	555	500	440
25	22.6	32	750	675	615	540
32	37.0	38	1035	930	845	745
40	57.8	45	1365	1225	1115	980

SAFETY FACTORS:

Minimum safety factors of 1.5 in non-critical and 2 in critical cases should be considered for design purposes. Wherever relevant, the local code of practice or standard must also be considered in relation to anchorage length.

Hole preparation and formation

Optimum performance of **VARAFIX PE – S** requires rough sided, dust free holes. Use of rotary percussive drills with air or water flushing is recommended.

Diamond drilled holes should be under-reamed unless necessary safety factors are incorporated.

Cast holes should preferably be inverse dovetail configuration. If parallel side holes are cast they should be rough to provide adequate keying.

Bar preparation

All bars should preferably be degreased and all flaky rust removed.

Mixing

A complete pack of resin and catalyzed filler should be mixed in one operation. Mixing may be carried out manually or mechanically in open type metal vessel. When a smooth even consistency is achieved the grout is ready to use and should be placed well within the gel time of the grout (about 10 – 15 minutes only). The material left in bulk will develop heat and dramatically reduce the gel time. So the product should be placed as soon as possible. Packs have been designed to produce practical and economical volumes of grouts.

DO NOT ATTEMPT TO MIX PARTIAL MIX COMPONENTS

Installation

Using the calculated volume of the grout the grout should be poured steadily into the prepared holes the anchor bar is then pressed into the hole to the required depth. Slight agitation of the bar will assist in achieving the complete bond. The bar should be kept undisturbed in the required position until the resin is set.