



# Febpatch 45

## Rapid High Strength Repair Mortar

- Specially formulated repair mortar, based on magnesia-phosphate cement
- Pre-mixed with selected aggregates
- Provides controlled, extremely high early strengths
- Trafficable within 45 minutes
- Ready to use, mix with water
- High bond strength, no primers required

Colour	Product Code	Pack Size	Box Qty
Grey	FBPATCH45	25KG	1



## Concrete Repair & Speciality Mortars

### Febpatch 45

#### Product Description

FEBPATCH 45 is a specially formulated repair mortar, based on magnesia-phosphate cement pre-mixed with selected aggregates, which gives controlled, extremely high early strengths in temperatures ranging from -20°C (or lower) up to over 30°C

#### Typical Uses

- For use in concrete repair situation where the minimum delay and work disruption is of the utmost importance.
- Cold store floor areas/Roads and nosings/Bridge decks/Quays/Crane rails/Industrial floor areas, loading bays and warehouses/Around fixing bolts.
- Raising and levelling manhole covers, gratings, hydrants etc.

#### Features & Benefits

- High strength at a very early age (45 minutes).
- Minimum delay to traffic and production. When used to repair concrete pavings, it permits early re-opening to traffic - within 45 minutes at 20°C.
- Ready for use. Only requires the addition of water (see Mixing).
- High bond strength and no secondary bonding agents required.
- Highly durable. Excellent resistance to de-icing salts - High freeze/thaw resistance: No curing required.
- Can be placed in sub-zero temperatures.

#### Instructions for use

##### Surface Preparation

All surfaces should be thoroughly sound and uncontaminated by dirt, oil or grease. The minimum thickness of repair should not be less than 20mm. The boundaries of the repair must be square cut. Under no circumstances should "feather edging" be used.

##### Priming

Although secondary bonding agents are not required, the area to be repaired must be thoroughly pre-wetted with clean water. Care should be taken, however, to ensure that all standing water is removed.

#### Mix Proportions:

Mortar mix (standard): FEBPATCH 45 25 kg;  
Water 1.5 litres

Concrete mix (large areas > 150mm deep):  
Coarse 10 kg Aggregate (max) Water 1.5 litres  
FEBPATCH 45 25 kg

Small Batches: 60ml Water per 1kg FEBPATCH 45

#### Mixing

The following sequence must be followed at all times when mixing FEBPATCH 45:

1. A suitable mixer (i.e. tilting drum) should be located as near as possible to the area of work.
2. The amount to be mixed should never exceed that which can be transported, placed, compacted and finished within ten minutes.
3. Wet down the mixer and drain off the free water.
4. Pour the correcting measured amount of clean water into the mixer first. Do not add the water to FEBPATCH 45.

5. When adding coarse aggregates, these must be added to the water before the addition of FEBPATCH 45 into the mixer.

6. Empty the full contents of the FEBPATCH 45 bag into the mixer. Minimum mixing time is 1 minute.

**Refer to the Technical Datasheets for detailed instructions on applying first and second coats.**

#### Coverage

25kg of FEBPATCH 45 will yield approximately 11.6ltrs. Where coarse aggregates are added at the rate of 10kg per 25kg FEBPATCH 45, an approximate increase in yield of 30% will be achieved.

#### Storage

Store in cool, dry conditions.

#### Shelf Life

12 months minimum when stored in accordance with the manufacturer's instructions.

#### Performance Data

<b>Thickness (min and max)</b>	20mm-150mm – for greater than 150mm in depth, a 10mm single sized coarse aggregate (to BS882) may be added up to 10kg per 25kg of FEBPATCH 45
<b>Workability @ 20°C</b>	approx 5-12 minutes
<b>Setting time (initial)</b>	15 minutes at 20°C/35 minutes @ 8C
<b>Final set @ 20°C (trafficable)</b>	approx 45 minutes
<b>Application temperatures</b>	-30°C to +30°C
<b>Yield per 25kg (mixed as directed)</b>	Approximately 11.6ltrs when mixed as directed. Addition of 10kg coarse aggregate/25kg FEBPATCH 45 will increase yield by approximately 30%
<b>Density (wet)</b>	2200kg/m <sup>3</sup>
<b>Shrinkage</b>	Zero (shrinkage compensated grade)

#### Typical strengths (BS1881) @ 20°C (100mm cubes):

TIME AFTER PLACEMENT	COMPRESSIVE STRENGTH (N/mm <sup>2</sup> )	TENSILE STRENGTH (N/mm <sup>2</sup> )
1 hour	22	3
3 hours	33	2.5
24 hours	44	3
28 days	53	3.5



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