

# Rapid Patch

## DESCRIPTION

*Rapid Patch* is a blend of dry powders which, when mixed with clean water produces a high strength, rapid setting material for the repair of concrete floors.

The material is a blend of cements, graded aggregates, special fillers and chemical additives to provide concrete which has good handling characteristics during installation and rapid set qualities for reduced reinstatement time.

*Rapid Patch* is of use where the interruption to traffic must be minimised and can be used internally and externally.

## USES

*Rapid Patch* can be used for the rapid repair of concrete in the following areas:

- concrete pavements;
- airport aprons;
- transport yards and access ramps;
- concrete roadways;
- warehouse floors; and
- industrial plants and factories.

## ADVANTAGES

- Provides rapid early strength gain - enables limited down time during installation
- Abrasion and weather resistant
- Single component – only requires the addition of clean water on-site
- Provides an excellent bond to existing concrete substrates
- Shrinkage compensated
- Chloride free

## DESIGN CRITERIA

*Rapid Patch* is designed for horizontal use only. The material should not be used for repair sites that are less than 25mm in thickness, however *Rapid Patch* can be applied up to a maximum thickness of 200mm.

## PACKAGING

*Rapid Patch* is available in a 20kg bag.

## COVERAGE AND YIELD

9.6 litres/20kg bag (0.38m<sup>2</sup> at 25mm thickness)

## APPLICATION GUIDELINES

### ***SURFACE PREPARATION***

The perimeter edge of the repair should be saw cut square to a depth not less than 20mm to avoid featheredging. Break out the complete area to a minimum depth of 25mm up to the sawn edge.

Ensure the repair zone is sound and ensure the surface is free from dust, oil, grease, and all other contaminants. Smooth surfaces should be roughened to produce a good key this is best achieved by light scabbling.

### ***SUBSTRATE PRIMING***

The repair zone should be thoroughly soaked with clean water, and any excess removed. Once the substrate has been soaked, apply one coat of *ACS Neolastic (2:1)* scrubbing it well into all the irregularities of the surface.

When the primer has become tacky the installation of the *Rapid Patch* can commence.

### ***MIXING***

Care should be taken to ensure that the *Rapid Patch* is mixed thoroughly, this is best achieved using a forced action mixer or a heavy duty slow speed (400/500rpm) drill incorporating a spiral paddle. (Mixing of part bags is not recommended).

1. Add the correctly measured water content into the mixing vessel, to achieve the

selected consistencies the amount of clean water to be added per **20kg bag** should be:

Consistency	Water Addition per 20kg bag (Litres)
Trowellable	1.8 – 2.0
Flowable	2.0 – 2.2

2. Slowly add the total contents of the *Rapid Patch* bag and mix continuously for three to five minutes until a smooth and even consistency is obtained.

### PLACEMENT

1. *Rapid Patch* should be applied to primed substrate as soon as possible after mixing. The material should be applied evenly by trowel and tamped in to place using a wooden float to ensure full compaction.
2. *Rapid Patch* should be finished off to the correct level of existing concrete with a steel trowel, ensuring the surface is fully closed. The surface can be textured using a soft hand broom or banister brush.

### TEMPERATURE AND WORKING LIMITATIONS

For maximum performance it is important that during mixing and application, *Rapid Patch* be kept within a temperature range of 18 – 25°C prior to, during and for 48 hours following placement.

The repair should not take place if the temperature is 5° C or lower. Warm water can be used to accelerate strength development during colder weather.

When temperatures exceed 30°C, the material should not be used as premature setting may occur. However where it is necessary for the repair to take place during these climatic conditions the repair site must be sheltered from the heat or conducted early morning. Keep materials cool and use cold water in the mix.

### CURING

It is necessary to cure all exposed surfaces. The use of a concrete curing membrane, hessian or continuous water spray is recommended.

### CLEANING

All tools should be rinsed with water immediately after use to remove all traces of *Rapid Patch*.

### TECHNICAL DATA

*The following results were obtained at 25 ±2 °C*

**Compressive Strength , MPa (AS1019.9 – 1999)**

Consistency	2 hrs	4 hrs	1 day	7 days	28 days
Trowellable	20	30	35	45	55
Flowable	15	25	30	40	50

**Pot Life:** 15 – 30 mins @ 25 ±2 °C

**Fresh Wet Density:** 2300kg/m<sup>3</sup> approx (depending on consistency used)

**Application Temperature:** 5°C to 30°C

**Maximum Aggregate size:** 5mm

### Setting Time

Initial Set	30 – 45 mins
Final Set	45 – 60 mins

### Traffic Time

Pedestrian	Min 2 hours
Vehicular	Min 4 hours

### Estimating Data

Consistency	Flowable
Approximate yield per 20 kg bag	9.65 litres
Approximate coverage of 20kg bag at 25mm thickness	0.38 m <sup>2</sup>

### STORAGE AND SHELF LIFE

If kept dry and stored in its original condition, Marathon Rapid Patch will keep for at least 12 months. The shelf life of the product may be reduced if subjected to high temperatures and high humidity.

## HEALTH AND SAFETY

- Avoid contact with the skin and eyes and wear suitable protective clothing, gloves, face mask and eye protection.
- Avoid the inhalation of dust from the cement powder during use.
- In the case of contact with the skin and eyes, wash with plenty of water
- If swallowed, seek medical attention immediately.

For further information consult the **Material Safety Data Sheet** and read the product label carefully before use. **Material Safety Data Sheets** are available by phoning **1800 077 744**.

**Please Note:-** *The information given in this data sheet is based on our current knowledge of the product when properly stored, handled and applied. We cannot guarantee that the product will be suitable, effective or safe when used for any purpose other than its stated uses.*

*To the extent that it is lawful, we exclude warranties implied by law and limit our liability to the cost of replacing the product. We accept no responsibility for loss or injury caused by improper use, incompetent preparation, inexpert or negligent application, or ordinary wear and tear.*

*Service or advice given by our staff should not amount to responsibility for the project - since the owner, or their contractor (and not River Sands), is responsible for procedures relating to the application of the product.*



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