

## technical data sheet

# ULTRA RAPIDSET

### Fast Setting Polymer Repair Mortar

#### PRODUCT

Ultra Rapidset is polymer modified high early strength trowellable, cementitious floor repair compound and mortar.

#### DESCRIPTION

Ultra Rapidset is a polymer modified, fast setting, high early strength, shrinkage compensated repair mortar for vertical and horizontal flooring applications.

Ultra Rapidset is supplied as a Grey powder, which requires only the addition of water to produce a smooth trowellable material.

#### RECOMMENDED USES

- Designed as a heavy duty floor repair compound which provides a very smooth surface allowing the smooth installation of carpet, ceramic tiles, sheet rubber, sheet vinyl tiles.
- Depending on the use of the floor can be used in conjunction with epoxy resin based system.
- Can be used in residential, commercial and any application where a fast setting internal floor repair of high strength and compatibility with other floor coverings are required.
- Underlayment for floor coverings such as carpet, ceramic tiles, vinyl, parquetry etc.
- Fast repairs of uneven concrete floors.
- Residential, commercial and medium industrial application.
- Application thickness from feather edge to 120mm in a single application.
- New construction and refurbishment projects.
- Building up ramp areas prior to application of floor coverings.
- Maybe used for ramp construction.

#### FEATURES & BENEFITS

- Accepts foot traffic in 45 minutes.
- Reinstating large areas in relative short time periods.
- Very fast application.
- Dimensionally stable.
- Single component product, just add water.
- Installation can be carried out in a single application.
- Rapid curing.
- Can be applied directly onto prepared concrete surfaces.
- Eliminates the need for sand and cement screeds.
- Floor coverings may be applied the same day.
- Dimensionally stable, will not curl or crack.
- Excellent adhesion to prepared substrates.
- Rapid hardening and curing allows speedy access for foot traffic and overlaying with carpet, vinyl etc.
- One pack product eliminating on-site batching and ensures consistency of mixed product.

- Produces a very smooth surface essential for laying thin sheet coverings such as vinyl etc.
- Australian Made.

#### PERFORMANCE PROPERTIES

##### COMPRESSIVE STRENGTH

Tested in accordance to AS10129.9, AS2073 at 20°C.

Age	Compressive Strength
1 day	25 Mpa
3 days	30 Mpa
7 days	35 Mpa
28 days	45Mpa

##### FLEXURAL STRENGTH

Tested in accordance with ASTM C348-86 at 20°C

Age	Flexural Strength
1 day	3.5Mpa
3 days	4.5Mpa
7 days	7.8Mpa
28 days	10Mpa

##### BOND STRENGTH

Tested in accordance to ASTM C882 –1987 Slant/Shear method.

Age	Strength
7 days	> 3Mpa
28 days	> 5Mpa

##### SETTING TIMES

Vicat setting times at 20°C

Initial Set	20°C	25 – 30 minutes
	30°C	20 – 25 minutes
Final Set	20°C	40 – 45 minutes
	30°C	30 - 35 minutes

##### WORKING TIMES

Temperature	Times (minutes)
10°C	30 – 35 minutes
20°C	25 – 30 minutes
30°C	20 – 25 minutes

##### APPLICATION THICKNESS

Minimum	Feather Edge (5mm)
Maximum	120 mm

##### COEFFICIENT OF THERMAL EXPANSION

10 – 12 x 10<sup>-6</sup> mm/°C

##### FRESH WET DENSITY

1950 kg/m<sup>3</sup> approx. (tested in accordance to AS1012.5)

## TRAFFIC TIME 20°C

Foot Traffic	45 minutes
Vehicle Traffic	90 minutes
Time to cover with floor covering (overlay)	< 10mm 45 minutes > 10mm 1 hour

## APPLICATION TEMPERATURE

Minimum	5°C
Maximum	30°C

## DRYING/SHRINKAGE

Tested in accordance to AS1012.13

Time (days)	Shrinkage (Microstrain)
7 days	< 150 Microstrain
28 days	< 400 Microstrain
56 days	< 600 Microstrain

## WATER REQUIREMENTS PER 20KG BAG

4.3 litres.

## PACKAGING

Ultra Rapidset is supplied in 20kg polylined bag.

## COVERAGE

A 20kg bag of Ultra Rapidset mixed with 4.3 litres of clean water will yield approximately 13 litres. This quantity will cover approximately 13m<sup>2</sup> @ 1mm thick or 4m<sup>2</sup> @ 3mm thick. Ultra Rapidset can be installed to any thickness in a single application. (Refer to Bostik Findley for additional information on application)

Thickness	Area m <sup>2</sup> per 20kg bag
5mm	2.6
10mm	1.3
20mm	0.650
25mm	0.52
40mm	0.33
50mm	0.26
100mm	0.130

Yield 80 bags per cubic metre.

## APPLICATION INSTRUCTIONS

### Surface Preparation

Ensure substrate is clean and free from oil, grease, sealers, curing compounds, paints, polymer coatings, dust or any other contaminant or coating that may affect the bonding of Ultra Rapidset onto the substrate. All foreign material, e.g. bitumen, adhesive or laitance must be removed by mechanical means such as scabbling, capture shot blasting or grinding. The substrate must be primed prior to the application of Ultra Rapidset.

### PRIMING

Prime the clean, dry and dust free concrete substrate with Ultralevel Primer using a brush or broom. Allow primer to reach a tacky consistency before applying Ultra Rapidset. Approximate drying time for the primer is 40-60 minutes @25°C & 50% RH.

Apply the Ultra Rapidset as soon as possible after the primer has dried or re-priming maybe necessary. Extremely porous substrates, such as damaged slabs and aerated or lightweight concrete etc may require a second coat of Ultralevel Primer to avoid pinholes and bubbles in the Ultra Rapidset. The first coat of primer must be dry before the application of the second coat.

Apply Ultralevel Primer at 8-10m<sup>2</sup>/litre per coat, after 2:1 dilution with water (2 parts water, 1 part Ultralevel Primer). Brush out ponded primer to allow for even and complete drying of the Ultralevel Primer prior to the application of Ultra Rapidset.

### Non Absorbent Floors

For application of Ultra Rapidset to non-porous substrates prime the entire area with Ultra NP Primer in accordance with Technical Data Sheet.

**DO NOT APPLY ULTRA RAPIDSET TO AN UNPRIMED SURFACE.**

## MIXING

Ultra Rapidset requires 4.3 litres of clean water per 20kg bag and is best mixed with a forced action, high shear stirrer, powered by a heavy duty electric mixing drill at approx. 600 r.p.m. Add pre-measured water to a clean mixing bucket. Gradually add Ultra Rapidset into the water whilst continuously mixing the contents of the bucket. When the entire contents of the bag have been added to the water, mix for a further two (2) minutes to product a smooth homogenous consistency.

**DO NOT MIX BY HAND**

**DO NOT ADD EXCESS WATER**

Discard any Ultra Rapidset that has hardened or stiffened in the mixing bucket. Further addition of water will NOT reconstitute a useable mixture. For smaller quantities, mix the ratio of 3 part Ultra Rapidset powder to 1 part clean water by volume.

## PLACING

It is important to remember that Ultra Rapidset has a very short working time. It is advisable to mix up quantities that will be used within the working time and it is recommended to work in small areas.

**For Smoothing:** Apply the mixed mortar with a trowel to the desired thickness onto the correctly prepared substrate. Keep the trowel blade slightly inclined to achieve the desired thickness.

**For Filling:** When filling holes and cracks, work the Ultra Rapidset into the hole well. Ensure the Ultra Rapidset comes into total contact with the substrate, by applying firm pressure to the trowel. It is recommended to leave the repair proud of the hole or crack for about 20 minutes, then trim off the excess and finish off with a damp steel trowel. As soon as the Ultra Rapidset has hardened, the area can be levelled with Ultralevel SL.

## CURING

No special curing is required.

## PRECAUTION

- Concrete substrates must be at least 21 days old.
- Do not over water.
- Do not hand mix.
- Can be walked on after 45-60 minutes.
- Most floor coverings can be laid after 1 hour.
- Check moisture content in large/thick applications prior to laying floor coverings.
- Do not use in external applications.
- Protect from direct sunlight or drying winds during cure.
- Do not use in areas subject to hydrostatic head of pressure.
- Do not use in areas subject to constant contact with moisture.
- Not recommended as a finished floor coating or wearing surface.

## SUBSTRATES

Concrete substrates that have a moisture content greater than 5.5% subject to rising damp or moisture, require a moisture vapour barrier prior to installation of Ultra Rapidset. Contact your nearest Bostik office for application instructions on Bostik Moisture Seal to overcome damp substrate conditions.

## P.A.T.S (Pretested Adhesion To Substrate) Programme

Bostik offer a service in which a program has been established to eliminate potential field problems by pre-testing Bostik adhesives with samples of building materials to which the adhesive will be applied. This service is available on large projects where pre-application testing will aid in determining the proper surface preparation method to achieve optimum adhesion. Consult a Bostik representative for further information.

## HEALTH AND SAFETY

Cement products are classified as hazardous under General Health and Safety guidelines and materials containing Portland cement are alkaline in nature.

- Avoid contact with skin, eyes and avoid breathing in dust.
- Wear suitable protective clothing, dust masks, gloves and eye protection.
- Continual or extended contact with cement products can cause skin irritation.
- If poisoning occurs, contact a doctor or Poisons Information Centre.
- If swallowed, do not induce vomiting. Give a glass of water.
- If skin contact occurs, remove contaminated clothing and flush skin thoroughly for a minimum of 15 minutes and see a doctor.
- For more detailed information refer to MATERIAL SAFETY DATA SHEET.

## CLEAN-UP

Ultra Rapidset should be removed from tools and equipment with clean water immediately after use.

## STORAGE

Ultra Rapidset has a shelf life of approximately 12 months if kept in a dry environment away from moisture. For further information consult Bostik TECHNICAL DATA SHEET.

## FIRE

Ultra Rapidset is non flammable.

ITEM NO.	STOCK SIZE	COLOUR
<b>ULTRA RAPIDSET</b>		
272469	20kg Bag	Grey
<b>ULTRA LEVEL SL</b>		
267805	20kg Bag	Grey
<b>ULTRA FEATHER FINISH</b>		
272450	5kg Pail	Grey
<b>ULTRA LEVEL PRIMER</b>		
269514	5 Litre Bottle	Blue
<b>ULTRA NP PRIMER</b>		
287032	4 Litre Kit	Green
<b>MOISTURE SEAL</b>		
263332	8 Litre Kite	Grey
263370	20 Litre Kit	Grey
<b>EPOXYCOTE WB</b>		
289191	4 Litre	Clear
289205	20 Litre	Clear
<b>GUARDCOTE WB</b>		
289396	4 Litre	Clear
289418	20 Litre	Clear

*The representations and recommendations regarding the products are based on tests which we believe to be reliable. However, no guarantee of their accuracy can be made because of the great range of field conditions and variations encountered in raw materials, manufacturing equipment and methods. Thus, the products are sold with a limited warranty only, and on the condition that purchasers will make their own tests to determine the suitability of the product for their particular purposes. Under no circumstances will Bostik Findley Australia Pty Ltd be liable to anyone except for replacement of the products or refund of the purchase price.*

**ALL SALES ARE EXPRESSLY LIMITED TO THE TERMS AND CONDITIONS OF SALE OF BOSTIK FINDLEY AUSTRALIA PTY LTD**

## FOR FURTHER INFORMATION



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Product: Ultrarapid Set  
 Issue Date: 5<sup>th</sup> February 2003  
 Issue No: 1  
 Division: Building & Construction  
 Total Pages: 3