

Concrete Repair

High Build Mortar 10-100mm

Concrete Repair High Build Mortar 10-100mm, is a ready to use structural patching mortar with high ultimate compressive strength and abrasion resistance. It is heavy duty, polymer modified and suitable for structural repair.

Medium weight and shrinkage compensated, Concrete Repair - High Build Mortar 10-100mm can be used for vertical and horizontal concrete repair and reinstatement in large or small areas.

Advantages

- One component product, just add water and mix.
- Shrinkage compensated allows for long term dimensional stability.
- High ultimate strength and ideal for structural repairs.
- High build repairs can be completed in a single application, with exceptional performance characteristics.
- Excellent workability.
- Excellent bond strength to concrete substrates.
- High abrasion and impact resistance.
- Low permeability.
- Extremely durable.
- Reduces the need for formwork.



Product Attributes

Uses

- Recommended for:*
- Patching and repairing damaged concrete.
 - Structural repairs in horizontal and vertical surfaces.
 - Terraces, balconies and facades.
 - For repairs to damaged industrial flooring.
 - For below or above ground structures.
 - For more information on suitable uses or uses that are not listed above, please contact a Westbuild representative.

Performance

Residential, commercial and light industrial.

Yield

The approximate yields are obtained if mixed in accordance with the recommended procedures and accurately measured water content.

An 8kg pail of Concrete Repair - High Build Mortar 10-100mm with 1.35 litres of water will yield approximately 4.8 litres.



Packaging 8kg pail (32 pails/pallet). 8kg Concrete Repair - High Build Mortar 10-100mm supplied in Westbuild Rainproof packaging within a plastic bucket. The bucket can be used as a mixing bucket and for storage of any remaining un-mixed Concrete Repair - High Build Mortar 10-100mm still in the bag.

Shelf Life & Storage Concrete Repair - High Build Mortar 10-100mm, in its unopened packaging can be stored outside in any weather conditions and can be stored for extended periods of time within its rainproof packaging.

Technical Data

Product Identity Form: Powder

Compressive Strength

	Mouldable	Trowelable
28 days	>24mpa	>24mpa

Tested in accordance with AS1012.9 at 20°C and AS2073

Pot Life Setting begins after 20-45 minutes (at 25°C substrate and ambient temperature.) Concrete Repair - High Build Mortar 10-100mm. The working period depends very much on the product temperature and on the amount of mixing water added. Concrete Repair - High Build Mortar 10-100mm should not be used after 45 minutes from time of mixing.

The addition of water to the mortar after it has started to stiffen is not recommended and the product should be discarded. The addition of water will greatly decrease ultimate finished strength

Setting Times

Initial Set	20°C	120 - 180 minutes
	30°C	90 - 120 minutes
Final Set	20°C	300 - 360 minutes
	30°C	180 - 240 minutes

Vicat setting times at 20°C

Installation

Surface Preparation Saw, cut or cut back the extremities of the repair locations to a depth of at least 15mm to avoid feather-edging and to provide a square edge.

Break out the complete repair area to a minimum depth of 20mm up to sawn edge. Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae. Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or the use of a proprietary degreaser.

Expose fully any corroded steel in the repair area and remove all loose scale and corrosion deposits. Steel should be cleaned to a bright condition, paying particular attention to the back of exposed steel bars. (Gritblasting is recommended for this purpose.)



Priming

Where high impact or repetitious loading is applied, or where greater bond is required to the prepared substrate, Westbuild PRO™ Flexible Additive & Fortifier should be applied and allowed to reach a tacky state prior application.

Mixing

Care should be taken to ensure that the product is thoroughly mixed. Small quantities (up to 2kg) can be mixed by hand using a suitable mixing drum or bucket. When mixing small quantities by hand the maximum should be volume batched.

DO NOT MIX MORE THAN 2-3KG BY HAND.

Add required volume of drinking quality water into the mixing vessel and, with the mixer in operation, add one full 8kg pail of Concrete Repair - High Build Mortar 10-100mm and mix for 3 to 5 minutes until fully homogeneous, uniform and lump free.

Water Quantity (L)	Mouldable	Trowelable
	1.2 – 1.25 Litres	1.3 – 1.35 Litres

Dependent on the ambient temperature and the desired consistency, the amount of water required may vary slightly but should not exceed 1.4 litres per 8kg pail of Concrete Repair - High Build Mortar 10-100mm. Excess mixing water may result in lower strength and adhesion.

Note: In all cases Concrete Repair - High Build Mortar 10-100mm powder must be added to water.

Application

Exposed steel reinforced bars should be firmly secured to avoid movement during the application process as this will affect mortar compaction, build and bond.

Apply the mixed Concrete Repair - High Build Mortar 10-100mm to the prepared substrate by gloved hand or trowel. Thoroughly compact the mortar on to the primed substrate and around the exposed reinforcement.

Placement and Layer Thickness

Concrete Repair - High Build Mortar 10-100mm can be applied to 75mm thickness in vertical sections, but up to 100mm thickness in smaller pockets or with the use of formwork. If formwork is used, it should have properly sealed faces to ensure that no water is absorbed from the repair material. In horizontal locations, Concrete Repair - High Build Mortar 10-100mm can be applied up to 100mm in thickness.

Note: The minimum applied thickness of Concrete Repair - High Build Mortar 10-100mm is 10mm.

Application thickness:	Minimum	10mm
	Maximum	75mm Vertical 100mm Horizontal / smaller pockets / with formwork

If sagging occurs during application to vertical surfaces, the Concrete Repair - High Build Mortar 10-100mm should be completely removed and re-applied at a reduced thickness or lower consistency on to the correctly re-primed substrate.



Application Temperature

Application temperature:	Minimum	5°C, and increasing
	Maximum	35°C

Low Temperature Application	High Temperature Application
In cold conditions down to 5°C, the use of warm water (up to 30°C) is advised to accelerate strength development. Normal precautions for winter working with cementitious materials should then be adopted. The material should not be applied when the substrates or air temperature is 5°C and falling.	At temperatures above 35°C, the material should not be used as this will cause premature setting and make working with the product difficult.

Pot Life

Setting begins after 20-45 minutes (at 25°C substrate and ambient temperature.) Concrete Repair - High Build Mortar 10-100mm should not be used after 45 minutes from time of mixing.

The addition of water to the mortar after it has started to stiffen is not recommended and the product should be discarded. The addition of water will greatly decrease ultimate finished strength.

Finishing

Concrete Repair - High Build Mortar 10-100mm is finished by striking off with a straight edge and closing with a steel float. Wooden or plastic floats, or damp sponges, may be used to achieve the desired surface texture. The completed surface should not be overworked.

Curing

In hot, dry windy conditions all cementitious based mortars must be protected from drying too quickly. It is important to prevent rapid surface drying and evaporation. Under harsh conditions, protective measures should be taken to reduce water loss.

Concrete Repair - High Build Mortar 10-100mm must be cured immediately after finishing in accordance with good concrete practice. When maximum curing is required, the use of Westbuild PRO™ Flexible Additive & Fortifier or an acrylic based sealer sprayed, brushed or rolled on the surface of the mortar in a continuous film, is recommended.

In very extreme temperatures, Concrete Repair - High Build Mortar 10-100mm should not be applied.

Cleaning

Concrete Repair - High Build Mortar 10-100mm should be removed from tools and equipment whilst the material is still wet.

Applying Coatings

Concrete Repair - High Build Mortar 10-100mm, when cured, has excellent resistance to water penetration. However, if areas are subject to continuous water immersion or chemical attack from solvents or acids, suitable coatings should be applied, such as an epoxy or acrylic coating. To ensure a long lasting highly protective coating, it is recommended that up to two coats may be applied. The first coat should be applied 12-24 hours after the Concrete Repair - High Build Mortar 10-100mm has been applied. The second coat may be applied the following day or as soon as the first coat has dried.



Attention

Concrete Repair - High Build Mortar 10-100mm should not be used when the temperature is below 5°C or greater than 35°C.

Concrete Repair - High Build Mortar 10-100mm should not be applied less than 10mm or more than 100mm thickness in any given application.

For concrete substrates subject to rising damp or moisture, a waterproof membrane is required.

It is recommended that Westbuild PRO™ Flexible Additive & Fortifier be used as a primer to aid in the adhesion of the mortar to the substrate.

New concrete surfaces must be at least 14 days old prior to application of Concrete Repair - High Build Mortar 10-100mm.

To prevent Concrete Repair - High Build Mortar 10-100mm from drying too quickly, protect the applied product from direct sunlight or drying winds during actual application, and while curing for up to 24 hours.

If the substrate onto which Concrete Repair - High Build Mortar 10-100mm is applied moves or cracks, reflective cracking will occur in the Concrete Repair - High Build Mortar 10-100mm.

Risk

All cement-based products are alkaline and can cause irritation. This product is considered hazardous according to criteria of Work Safe Australia. A dust mask should be worn when handling the material. Continuous or extended contact with this product may cause irritation, as well as respiratory issues such as bronchitis or silicosis. Contact with the eyes and repeated and prolonged skin contact should be avoided.

Safety Precautions

A dust mask should be worn when handling the material. Contact with the eyes and repeated and prolonged skin contact should be avoided.

Technical/Safety Data

TECHNICAL DATA SHEETS (TDS) AND SAFETY DATA SHEETS (SDS) are available on request and should always be referenced before handling this product and before the commencement of any works. A WESTBUILD Representative is always available should you require further information. Visit our website for further information on the use of this product and suitability for your application.

Related Products

Westbuild PRO™ Flexible Additive & Fortifier
Westbuild PRO™ General Purpose Primer
Concrete Repair – Fairing & Smoothing Mortar 0-5mm
Ultra Light Weight (ULW) Repair Mortar
Level It - Self Smoothing, Self Levelling Underlay

It is the responsibility of the user to ensure that products are used in accordance with the Westbuild Products Pty Ltd instructions for use, and Australian Standard procedures in applications for which they are intended. Westbuild Products Pty Ltd and its associated companies cannot guarantee and are not liable for the use of their products outside of Australian Standards guidelines and the Westbuild Products Pty Ltd instructions for use. The technical details and recommendations contained in this data sheet are given in good faith and represent the best of our knowledge at time of printing. Freedom from patent restrictions should not be assumed.

WESTBUILD CONTACT DETAILS
PHONE: 08 9309 2029
FAX: 08 9302 1129
Email: technical@westbuildgroup.com