

Keratrade

Panel Patch

HB 100

High-Build, High-Strength, Polymer-Modified,
Shrinkage-Compensated Repair Mortar

PAGE 1 of 3

TDS

TECHNICAL DATA SHEET

Uses:	Internal / External
Thickness Horizontal:	10 - 200mm
Thickness Vertical:	5 - 100mm
Water:	3.6 Litres
COMPRESSIVE STRENGTH after 28 days	70 Mpa
FLEXURAL STRENGTH after 28 days	10 mpa
App Temp:	5-35°C
Bag Size:	20KG

PRODUCT DESCRIPTION

Keratrade Panel Patch HB 100 is a high-strength, high-build, shrinkage-resistant structural repair mortar suitable for both vertical and horizontal surfaces. Engineered with specialised cements and polymer additives, it offers exceptional compressive strength, high abrasion resistance, and superior adhesion to concrete and masonry. Its shrinkage-compensating properties ensure long-term durability for structural repairs

KEY PROPERTIES AND BENEFITS

- Exceptional compressive and flexural strength.
- High build repairs achievable in a single application.
- Single application thickness up to 100 mm.
- The low permeability protects against chloride penetration and carbonation.
- High abrasion and wear resistance.
- Excellent workability.
- Shrinkage-resistant, providing long-term dimensional stability.
- Formwork-free for vertical, horizontal, and overhead use.
- Can be applied using a dry or wet method, delivering a high build with exceptional compaction and enhanced performance.
- Exceptional adhesion to concrete substrates.
- Suitable for internal and external applications.
- Pre-packaged to eliminate any variations in on-site mixing.
- Easy to use- just add water and mix.
- Smooth and consistent workability.
- Versatile application by trowel, gloved hand, or mechanical projection

RECOMMENDED APPLICATIONS

- Structural repair of concrete elements.
- Repairs requiring high compressive strength.
- Repairing damaged concrete panels where structural strength is required.
- Precast panel and section repairs.
- Filling voids, cavities, and core holes.
- Anchor bolt filling and reinstatement.
- Repairs to spalled or deteriorated concrete caused by corrosion of steel reinforcement.
- Repairs requiring low permeability and high resistance to chlorides and carbon dioxide.
- High build repairs suitable for vertical, overhead, and horizontal repairs.
- High build repair applications from 5mm to 80mm to vertical surfaces.
- Vertical application up to 100mm with the aid of formwork.
- Can be applied up to 200mm to horizontal surfaces.

SURFACE PREPARATION

- Ensure substrate is free from contaminants, dust, grease, oil, or curing compounds.
- Remove cracked, loose, or spalled concrete to expose a solid substrate.
- Minimum repair depth 5 mm is recommended for large areas to avoid excessive feather edging or skim coating.
- Break out the repair area to a minimum of 5mm up to the saw cut edge.
- Mechanically profile surface by scabbling or high-pressure water blasting.
- Clean exposed steel of all rust, scale, and corrosion. Use grit blasting for effective cleaning.
- Ensure all steel, including rebar, is cleaned to a bright condition.
- After cleaning the steel apply a zinc-rich primer to prevent further oxidation and

PRIMING

- All surfaces over 40mm must be primed with Kera Prime or Active Prime Fix.
- All exposed steel and rebar should be primed with a zinc-rich primer. Avoid contact between the zinc-rich primer and the host concrete

MIXING INSTRUCTIONS

- Use a mechanical forced-action mixer or high-shear spiral paddle (avoid free-fall mixers).
- Do not mix by hand.
- Water addition: 3.6 L per 20 kg bag.
- Do not add excess water. Excess water will reduce the final strength, extend drying time, increase sag, and reduce the build-up of the mortar.
- Do not mix part bags.
- Pour water into a clean container, slowly add powder while mixing.
- Mix for 3-5 minutes until a smooth, homogeneous mortar is achieved.
- Mix only the quantity of material used within the set time.

Item Code: KTHB100-20KG

Keratrade - A GreenBuilding Company
88 Sutton Street, Nth Melbourne VIC 3051

CALL: 1300 NO HARM (1300-66-4276)

ISSUE 1: 15042025

keratrade.com.au

Store the product securely, and check with your local council regarding the disposal of contents. Dispose of packaging thoughtfully and recycle where possible. Keep out of reach of children. If you feel unwell, consult a doctor.
For more information, refer to the Safety Data Sheet (SDS) available at www.buildgreen.au.

GUARANTEE

BuildGreen guarantees that Keratrade Products are free from manufacturing defects and will meet any applicable specifications published by us for a period of 10 years from the date of purchase. Refer to the BuildGreen Guarantee.

DISCLAIMER

The technical details and recommendations are provided based on the best knowledge at the time. It is the user's responsibility to ensure the correct use and handling of the products in line with applicable Australian Standards. Users should verify that the product is appropriate for their specific applications and meets system specifications. We reserve the right to change information without prior notice as part of ongoing research and development.

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APPLICATION GUIDELINES

- Application temperature: 5°C to 35°C. Apply with a trowel or gloved hand, compacting thoroughly into the repair area.
- Ensure mortar is packed tightly around steel reinforcement and rebar.
- Finish with a steel trowel as required.
- Do not overwork the surface during finishing.

Spray Application

- Keratrade Panel Patch HB 100 can be applied using the wet application method. The mortar is pre-mixed with the required amount of water, then pumped and delivered via a spray gun with a suitable nozzle.

Low Temperature Application

- Avoid application when the temperature is below 5°C or decreasing. In colder conditions, warm water should be used for mixing.

Hot Temperature Application

- Avoid application at temperatures above 35°C, as this may cause the initial set to occur early, making the product harder to apply. For warmer conditions, chilled water is advised for mixing.

ABRASION RESISTANCE	
ASTM C501-1984 (Abrasion Resistance Test)	
AGE	WEAR INDEX
28 days	118
Standard 40-50 MPa-concrete has a wear index of 71	

PRODUCT INFORMATION

Colour	Grey Powder
Fresh Wet Density	2240 (Kg/m ³)
Yield per 20 Kg bag	10.5 litres
Number of Bags per cubic metre	95
Application Temperature	Min 5°C- Max 35°C
Coverage	2.2 (kg/m ² /mm)
Water per 20 Kg bag	3.6 Litres
Packaging	20 Kg bags
Shelf Life	12 months (unopened)

SETTING TIMES 20°C

Initial	1.5 hours
Final	2.5 hours

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LIMITATIONS

- Do not exceed the recommended water amount, as it can extend curing time and reduce strength development.
- If the substrate moves or cracks, reflective cracking may occur in the Keratrade Panel Patch HB 100.
- Substrate must be at least 21 days old before application of Keratrade Panel Patch HB 100.
- Minimum application thickness is 5 mm. Occasional thickness below 5 mm is acceptable only in very localised areas.
- Protect from water or rain for 24 hours after application.
- Keratrade Panel Patch HB 100 should not be applied when the temperature is below 5°C or above 35°C.
- Avoid application in high wind or direct sunlight without protection.
- In exposed environments, apply a suitable curing compound after the final trowel.
- For immersed applications, prime with an appropriate epoxy binder.

CLEAN UP

- Clean all equipment with water immediately after use.

SHELF LIFE AND STORAGE

- The shelf life is 12 months when stored unopened.
- Store in a dry area, protected from frost and direct sunlight.
- Reseal opened bags tightly and use promptly.

PACKAGING 20 kg bags

HEALTH AND SAFETY

- Refer to the latest Safety Data Sheet (SDS) for handling, PPE, first aid, and disposal guidelines.

WARRANTY

- Keratrade products are guaranteed against manufacturing defects and are warranted to perform in accordance with published specifications when applied according to instructions and within shelf life. This warranty is in addition to rights under Australian Consumer Law.

DISCLAIMER

- All technical data and recommendations are based on thorough testing and believed to be accurate. Users must determine product suitability for their specific application through testing. Keratrade accepts no liability for misuse or failure to follow application instructions.

PERFORMANCE DATA

	FLEXURAL STRENGTH	COMPRESSIVE STRENGTH
	MPa-AS 1012-11-2000	MPa-AS 1478.2-2005
1 day	6	25
7 days	9	53
28 days	10	70

APPLICATION INSTRUCTION

	Horizontal	Vertical
Minimum	10 mm	5 mm
Maximum	200 mm	100 mm

Young's Modulus: approximately 26GPa
Coefficient of thermal expansion 7-10x10⁻⁶ /°C

SHRINKAGE

7 days	< 100 micro-strains
28 Days	< 350 micro-strains
56 days	< 450 micro-strains

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