

POZILITE™ HB

PRODUCT DESCRIPTION

Ramset Pozilite™ HB is a heavy-duty polymer modified, high build structural repair reinstatement mortar with high ultimate compressive strength and abrasion resistance.

The product is shrinkage compensated, which allows it to be used for vertical, horizontal and overhead application for large or small repairs.

FEATURES

- High build repairs with exceptional performance characteristics.
- Shrinkage compensated allows for long term dimensional stability.
- Low permeability provides protection from chloride attack and carbonation.
- High build repairs can be completed in single application.
- High ultimate strength.
- High abrasion and impact resistance.
- One component just add to water and mix.
- Excellent workability.
- Extremely durable.

RECOMMENDED USES

- Patching and repairing damaged concrete.
- Structural repairs in horizontal, vertical and overhead surfaces subject to high load bearing.
- Terraces, balconies and facades. Repairs where high compressive strength and abrasion resistance is required.
- Repairs to spalled concrete caused by corrosion of steel reinforcement.
- High build application for repairs 10mm to 60mm on vertical substrates.
- Repairs to sewer tunnels, dams, bridges, power stations, concrete tanks.
- Re profiling of worn areas.
- Repairing concrete areas subject to chemical corrosion.
- For below or above ground structures.
- In repairs where high resistance to chlorides and carbon dioxide is required.

PROPERTIES

Table 1. Compressive Strength

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

Age	Compressive Strength
1 Day	26 MPa
3 Days	42 MPa
7 Days	50 MPa
28 Days	60 MPa

Table 2. Flexural Strength

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

Age	Flexural Strength
1 Day	3.7 MPa
3 Days	8.3 MPa
7 Days	9.2 MPa
28 Days	10.2 MPa

Table 3. Bond Strength.

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

Age	Bond Strength
7 Days	>10 MPa
28 Days	>15 MPa

Table 4. Setting Times.

Vicat setting times at 20°C.

Initial Set	Final Set
2-3 hours @ 20°C	4-5 hours @ 20°C
1-2 hours @ 30°C	2-3 hours @ 30°C

Table 5. Working Times.

Temperature	Working Time (minutes)
10°C	50-65 minutes
20°C	45-55 minutes
30°C	30-40 minutes

Table 6. Traffic time at 25°C @ 50% RH

Loading	Time
Foot Traffic	24 hours
Vehicle Traffic	36-48 hours

POZILITE™ HB

Table 7. Application Temperature

Minimum	Maximum
5°C	35°C

APPLICATION INSTRUCTIONS

SUBSTRATE AND SURFACE PREPARATION

Saw cut or cut back the edges of the repair to a depth of at least 10mm to avoid feather edging and to provide a square edge. Break out the complete repair area to a minimum depth of 10mm up to sawn edge.

Clean the surface and remove any dust, unsound or contaminated material, plaster, oil, paint, grease, corrosion deposits or algae. Where breaking out is not required, roughen the surface and remove any laitance by light scabbling or grit blasting.

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. Grit blasting is recommended for this purpose. Steel reinforcement should be coated with Ramset Epoxy Binder prior to application of repair mortar.

PRIMING

The substrate should be thoroughly soaked with fresh clean water and any excess removed prior to application of Ramset Pozilite™ HB. Prime substrate with Ramset Cemcrete™ by using a brush. Ensure all exposed repair areas are covered and allow primer to reach a tacky consistency prior to applying Ramset Pozilite™ HB. If the repaired area is to be frequently subjected to damp or immersed conditions or remains permanently wet, Ramset Epoxy Binder 2150 should be used as the primer on all pre-existing concrete surfaces including steel reinforcement. Contact the local Ramset office for further information.

MIXING

Care should be taken to ensure that Ramset Pozilite™ HB is thoroughly mixed. Free fall mixers must not be used. Mixing of part bags should never be attempted. Full bags of Ramset Pozilite™ HB must be mixed with a mechanical forced action mixer with a high shear stirrer.

Add 3.1 to 3.5 litres of clean water into the mixing vessel and with the mixer in operation, then add one full 20kg bag of Ramset Pozilite™ HB and mix for 3 to 5 minutes until fully homogeneous.

Note: The powder must always be added to water. Never add water to the powder.

Dependant on the ambient temperature and the desired consistency, the amount of water required may vary slightly but should not exceed 3.5 litres per 20kg bag of Ramset Pozilite™

Note: DO NOT MIX BY HAND.

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 Ramset Pozilite™ HB to the prepared substrate by gloved hand or trowel. Thoroughly compact the mortar onto the primed substrate and around the exposed reinforcement.

Ramset Pozilite™ HB can be applied up to 60mm thickness in vertical sections, and up to 80mm thickness with the use of formwork. If formwork is used, it should have properly sealed faces to ensure water is not absorbed from the repair material. In horizontal locations Ramset Pozilite™ HB can be applied up to 80mm in thickness.

If sagging occurs during application to vertical surfaces, the Ramset Pozilite™ HB should be completely removed and reapplied at a reduced thickness onto the correctly preprimed substrate. Note: the minimum applied thickness of Ramset Pozilite™ HB is 10mm.

FINISHING

Ramset Pozilite™ HB 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.

POZILITE™ HB

CURING

In hot, dry windy condition all cementitious-based mortars such as PoziLite™ HB must be protected against excessive rapid surface drying and evaporation by application of a curing membrane such as Ramset Cemcrete™. PoziLite™ HB must be cured immediately after finishing in accordance with good concrete practice.

In very extreme temperatures and drying conditions, supplementary curing with polythene sheeting, taped down at the edges, may be required.

Large areas should be cured as trowelling progresses 0.5m² at a time.

POT LIFE

Setting begins after approx. 45 minutes (at 25°C substrate and ambient temperature) from mixing and typically ends after another 50-55 minutes. Ramset PoziLite™ HB should not be used after 55 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.

CLEAN UP

Remove uncured Ramset PoziLite™ HB from tools and equipment with clean water immediately after use.

YIELD

The approximate coverage is obtained if mixed in accordance with recommended procedures and accurately measured water content. A 20kg bag of PoziLite™ HB with 3.5 litres of water will yield approximately 11 litres. Approx 90 bags per m³.

STORAGE & SHELF LIFE

Ramset PoziLite™ HB has a shelf life of approximately 8 months if kept in a dry environment completely away from moisture.

PACKAGING

20kg polylined bag.

HEALTH AND SAFETY

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

- During use avoid inhalation of dust contact with skin and eyes.
- Suitable protective clothing, dust masks, gloves and eye protection should be worn.
- Repeated or prolonged contact with cement products can cause skin irritation.
- If skin irritation occurs, remove contaminated clothing and flush skin thoroughly with water for a minimum of 15 minutes. Contact Poison Information Centre or consult medical adviser.

Material Safety Data Sheets (MSDS) are available from Ramset. Read the MSDS and product data sheet carefully before using any product. MSDS available from:

Ramset New Zealand

A division of ITW New Zealand Limited
29 Poland Road, Glenfield, Auckland
Ph: 0800 Ramset (726 738)
Email: info@ramset.co.nz
www.ramset.co.nz

Ramset Australia

A division of ITW Australia Pty Ltd
1 Ramset Drive, Chirnside Park,
Victoria 3116
Ph: 1300 780 063
Email: enquiry@ramset.com.au
www.ramset.com.au

PART NUMBER: RPLHB

ITW New Zealand Limited does not give any representation, guarantee or warranty, express or implied that the information is or will be complete or accurate or that it has been or will be independently verified. To the extent permitted by statute, ITW Construction Products New Zealand Limited, its servants and its agents will not be liable (whether in negligence or other tort, by contract or under statute) in respect of any loss or damage (including consequential loss or damage) arising by any reason of or in connection with the provision of the information or by purported reliance on it.