



BARRA® MORTAR HL

High build lightweight repair mortar

DESCRIPTION

Barra Mortar HL is a cementitious, polymer modified lightweight repair mortar designed for high build, vertical and overhead repairs. It can be applied at thicknesses of 5mm to 100mm in a single application. **Barra Mortar HL** is supplied as a ready-to-use dry powder requiring only the addition of water on site.

RECOMMENDED FOR

- Patching and repairing damaged concrete areas from 5 to 100mm in depth in one layer.
- Horizontal, vertical or overhead surfaces where load bearing is not a prime concern.

FEATURES & BENEFITS

- *Economical high build in one layer.*
- *Shrinkage compensated.*
- *Excellent bond to properly prepared, sound substrates.*
- *Excellent workability and finishing characteristics.*
- *Low permeability.*
- *No added chloride.*
- *Easy to use - just add water.*
- *For internal and external use.*

PERFORMANCE DATA (Typical Results)

	7 Days	28 Days
Compressive Strength	23MPa	26 MPa
Flexural Strength	2.6MPa	4.3MPa
Elastic Modulus (AS1012 Pt 17)		9.9GPa
Coefficient of Thermal Expansion (ASTM C531)	9.5x10 ⁻⁶ m/m/°C	
Electrical Resistivity (ASTM C305) ohm. cm.	6000	14100

NOTE: The data shown is based on controlled laboratory tests. Reasonable variations from the results can be expected in practice.

PROPERTIES

Supply form	Powder
Water added per bag (20kg)	4.0 litres
Colour	Grey
Density (mixed)	approx.1.42kg/L
Application temperature	Not below 5°C

APPLICATION DIRECTIONS

Substrate condition

Surfaces to which **Barra Mortar HL** are to be applied should be clean, sound and free of dust and loose particles.

Cement laitance, oil, grease, mould release oil or curing compound must be removed from concrete surfaces by using wire brush, bush hammer, scabber, grit blasting, high pressure water blasting or other means. Exposed reinforcing must be cleaned and then protected with **Barrafer A**.

Absorbent substrates must be thoroughly dampened prior to application. The surface should be damp with no freestanding water.

During application the temperature of the substrate should not be below 5°C. To avoid too high surface temperature it is advisable to shade areas before and during the period of application.

Mixing

Mix whole bags only. Pour most of the required quantity of water into a suitable mixing pail and gradually add the **Barra Mortar HL** whilst mixing continuously with a slow speed drill fitted with a helical paddle (e.g. Jiffy) until a homogeneous, lump-free mortar is obtained. Add balance of water, if necessary, until the desired consistency is obtained. The amount of water to be added is highly dependent on ambient temperature and relative humidity. In hot and dry climates, slightly higher amounts of water may be necessary, the contrary in cold and humid climates. Too much water will cause "slumping", reduce bond and strength, as well as increasing permeability.

Priming

A slurry of **Barra Mortar HL** (2 parts powder to 1 part water by volume) should be brushed onto the dampened substrate and thoroughly worked in. The subsequent application of the mortar must be applied wet-on-wet before the slurry has dried out.

Alternatively, an application of **Barra Emulsion AC** bonding agent may be applied by brush to the prepared surface and the **Barra Mortar HL** applied wet-on-wet before the primer has dried out.

Method of use

The mixed mortar can be applied by trowel, spatula or float, onto the primed substrate.

The maximum application thickness of **Barra Mortar HL** is approximately 100mm per layer. The mortar should be compacted in the usual way. The minimum layer thickness is 5mm. If feather edging is required use **Barra 80**.

Barra Mortar HL can be pneumatically applied by means of a rotor and stator (worm drive) pump fitted with a suitable nozzle.



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Curing

Barra Mortar HL has been formulated to withstand too rapid water loss under normal conditions. In high temperatures with low humidity and windy conditions, repairs should be cured by application of a suitable MBT curing compound or cover with plastic sheeting in order to avoid plastic shrinkage cracking.

Finishing

Depending on site requirements, a fairing coat of **Barra 80** or a protective coating such as **Barracryl** can be applied over the **Barra Mortar HL** after a minimum of 7 days to allow hardening and cure.

Tools

- Mixing : by low speed drill with suitable Jiffy paddle or by pan mixer.
- Application: trowel, float, spatula or wet spray machine.
- Finish : wood or steel trowel, plastic sponge trowel for very smooth texture.

ESTIMATING DATA

A 20kg bag of **Barra Mortar HL** mixed with 4 litres of water yields 17 litres, (0.017m³).

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CLEANING

Barra Mortar HL is a cementitious product. Tools should be cleaned with water before the material hardens.

SHELF LIFE

Barra Mortar HL can be stored in tightly sealed original bags for 12 months if kept dry and at moderate temperature.

PACKAGING

Barra Mortar HL is available in 20kg moisture resistant paper bags.

PRECAUTIONS

Barra Mortar HL is not toxic, but as with other products containing portland cement, it has an alkaline nature and thus can be irritating to skin and eyes. Wear simple dust masks, goggles and gloves when handling. Wash off splashes of material with clean water. If irritation persists, seek medical advice. For full safety and first aid instructions, refer to the product Material Safety Data Sheet.

Keep out of reach of children.

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this MBT publication is based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability of completeness either expressed or implied is given other than those required by Commonwealth or State legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided, does not constitute supervisory responsibility. Suggestions made by MBT either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not MBT (Australia) are responsible for carrying out procedures appropriate to a specific application.

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