Limetec® Hydraulic Lime Mortars

Product Datasheet

1.0 Identification

1.1 Introduction

Limetec® Hydraulic Lime Mortars are factory produced mortars using dried sands and hydraulic lime.

The dry mortar is available in 25kg bags or bulk silos.

Limetec® Hydraulic Lime Mortars are suitable for use in blocklaying, bricklaying, stonemasonry and as a backing or final coat render/plaster.

Limetec® Hydraulic Lime Mortars are manufactured using natural hydraulic limes (NHL) which are produced by burning argillaceous or siliceous limestone.

1.2 Authority

Limetec® Hydraulic Lime Mortars comply with the durability requirements of BS5628: Part 3:2001. Mortar strengths are measured at 91 days as opposed to 28 days, as lime mortars gain strength more gradually compared to Portland cement based mortars.

Materials used conform to the following standards:

Sand	BS EN 13139: 2002
Natural Hydraulic Lime (NHL)	BS EN 459: Part 1: 2001
Calcium Lime (CL90)	BS EN 459: Part 1: 2001
Pigments	BS EN 12874

Admixtures, where used, do not contain calcium chloride.

Water added on site should be clean and free from impurities.

1.3 General Advantages

Limetec® Hydraulic Lime Mortars offer several mix advantages:

- Consistent mix proportions.
- Consistent quality of mortar.
- Correct choice of sands.
- Mortars can be re-worked for up to 24 hours.

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- Deterrent against pilfering and reduction in wastage.
- Productivity savings as there is no need to allocate one individual for mixing.
- Mortar is produced as and when needed.

2.0 Description

2.1 Manufacture

Limetec® Hydraulic Lime Mortars are manufactured using factory batching techniques.

Raw materials and end products are subject to regular quality control procedures and testing.

The materials are weighed and mixed under computer controlled conditions with rigorous quality control procedures.

Although mortar is traditionally specified by volume, it is generally accepted that batching by weight produces mortar of a greater consistency.

2.2 Mortar Mix Proportions

Limetec® Eminently Hydraulic Mortar
Mix proportion 1:2. Limetec® Eminently Hydraulic Mortar will reach HLM2.5 (class III) at 28 days and HLM5 (class II) at 91 days (high resistance to freezing & thawing, high resistance to sulphates).

Mortar class	Lime : sand (vol/ vol)	BS 5628 Mortar mix Durability Designation	Hydraulic lime Mix designation	Typical Compressive strength (N/mm^2 @ 91 days)	Mortar Durability Class
Eminently hydraulic	1 : 2	(iii) at 28 days (ii) at 91 days	HLM5	5.0	7-8

Limetec® Moderately Hydraulic Mortar
Mix proportion 1:2¼. Limetec® Moderately Hydraulic Mortar will reach HLM1 (class IV) at 28 days and HLM2.5 (class III) at 91 days (good/high resistance to freezing & thawing, high resistance to sulphates).

Mortar class	Lime : sand (vol/ vol)	BS 5628 Mortar mix Durability Designation	Hydraulic lime Mix designation	Typical Compressive strength (N/mm^2 @ 91 days)	Mortar Durability Class
Moderately hydraulic	1:2¼	(iv) at 28 days (iii) at 91 days	HLM2.5	2.5	5-6

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Limetec® Feebly Hydraulic Mortar
Mix proportion 1:2¾. Limetec® Feebly Hydraulic Mortar will reach HLM0.5 (class V) at 28 days and HLM1 (class IV) at 91 days (poor resistance to freezing & thawing, good resistance to sulphates).

Mortar class	Lime : sand (vol/ vol)	BS 5628 Mortar mix Durability Designation	Hydraulic lime Mix designation	Typical Compressive strength (N/mm^2 @ 91 days)	Mortar Durability Class
Feebly hydraulic	1:2¾	(v) at 28 days (iv) at 91 days	HLM1	1	3-4

The above is meant as a guide only; if you wish to discuss a specific application in further depth please call our sales office.

2.4 Performance

Limetec® Hydraulic Lime Mortars are more flexible than Portland cement based mortars, which means that expansion joints are not necessary in many circumstances.

Limetec® Hydraulic Lime Mortars offer good vapour permeability, which enables the building to "breathe".

Limetec® Hydraulic Lime Mortars are formulated to meet the requirements of compressive strength and durability.

2.5 Coverage

Limetec® Hydraulic Lime Mortars can be used for scratch coat and floating coat plasters and renders and have a coverage rate of 1.25m2 per 25kg bag (50m2 per tonne) @ 9mm thick.

For brick laying a 25kg bag will lay 25 bricks with a 10mm joint and a single brick skin, (1000 bricks per tonne of mortar)

3.0 Sitework

Limetec® Hydraulic Lime Mortars can be delivered to site in 25kg bags
When using 25kg bags, mixing can be undertaken using a conventional drum mixer. The addition of water to the mix should be controlled to ensure that the mix does not become saturated.

For best results add the water sparingly, waiting for the water to thoroughly disperse throughout the mix before adding more. Once the desired consistency is reached continue mixing for a further 20 minutes.

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Under certain circumstances results can be improved by re-mixing the mortar after allowing it to stand for up to 8 hours after the initial mixing process.

Work should not be carried out if the temperature is below 5 ºC. If, after application, the temperature is expected to fall below 5 ºC some form of protection must be given to the area of work. Without adequate protection there is a risk of frost damage during the curing process.

Protection should also be given from wind, rain and direct sunlight.

4.0 Prices, Conditions of Sales

Our sales office will be pleased to provide quotations for specific projects. All quotations are subject to our Conditions of Sale, a copy of which is available on request.

5.0 Health and Safety

Hydraulic Limes are classified as an irritant and are alkaline in nature (see Health and Safety Datasheet for more details).

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