

## Product Data

### Pre mixed Natural Lime Mortar

20/05/2008

**Pre mixed natural hydraulic lime and sand. A general purpose mortar for building or pointing stone, brick and block: available in different strengths, different sand gradings and colours.**

#### Composition

Lime green Natural mortar is a combination of different sands mixed with St Astier pure and natural hydraulic lime with further additions including pigments where required.

Four different sand gradings are available;

**TF** (0-1mm) **F** (0-2mm) **M** (0-3mm) and **G** (0-5mm).

Lime green has wide range of colour options, a colour chart available on request.

#### Packing and availability

Available in 25 kg paper bags shrink wrapped 40 per pallet and sealed one tonne bulk bags for use with the mini silo system. Off white M grade in all three mortar strengths is kept in stock others are made to order.

#### Bulk density and consumption

##### **Average bulk density:**

Dry: 1550kg/m<sup>3</sup>: +/-100

Wet: 1550 kg/m<sup>3</sup> +/-50.

**Repointing:** 20kg/m<sup>2</sup> stonework; 7kg/m<sup>2</sup> brickwork.

**Per 1m<sup>3</sup> of wet mortar:** building 1200-1800 bricks. All figures approx.

#### Guidance on mortar choice

Mortar application	Natural Lime Mortar type
Internal use, external walls, soft bricks	Soft mortar <i>Based on St Astier <b>NHL2</b> lime</i>
General solid masonry Dense masonry, parapets and lintels	Medium mortar <i>Based on St Astier <b>NH3.5</b> lime</i>
Above roofline, below DPC incl. Copings and cappings Earth retaining walls	Strong mortar <i>Based on St Astier <b>NHL5</b> lime</i>
The correct specification for any mortar should consider the structural requirements, nature and condition of the background, site exposure, time of the year and type of finish required. Less porous masonry units and harsh climates require greater mortar strength.	

#### Mixing

Add the whole bag of pre mixed mortar into drum or forced action mixer carefully avoiding creating excessive dust, add only 4.5-5.5 litres of water and mix for at least 10min. Lime green mortars can be reworked up to 24hrs. Please contact us for further information.

#### Application

Before pointing and building clean and remove all dust and loose material from joints and masonry, and adequately dampen dry or high suction surfaces. Pointing and building mortars should be finished the same day or the following day in cooler periods. Soft lime mortars will require longer curing times than cement, but the methods and principles of application are the same. When pointing or laying hard impervious masonry and / or during damp cool weather lime mortars may take a few weeks before being fully able to resist frosts. Do not use in temperatures less than 5 °C or over 30°C.

#### Curing

Hydraulic lime mortars do not set as quickly as modern cement based materials; hydraulic lime starts to set once water is added and then slowly reacts with carbon dioxide: this is a slow process. Strengths and long term durability are achieved over a few months, not within days. The long term success and durability rely upon proper curing of the mortar, against the effects of drying winds, strong sunlight, rain and frost.

In warm weather gently mist spray with water after application and cover if required with damp hessian sheets. In cool periods cover with protective sheeting, to avoid frost damage.

Further information available upon request.

## Product Data

### Performance

Product type	Strong mortar	Medium mortar	Soft mortar
Mortar class	M2	M1	M1
Compressive strength N/mm <sup>2</sup> 28 days	>2	>1.5	>1
Compressive strength N/mm <sup>2</sup> 90 days	>5	>4	>2.5
Resistance to Freeze Thaw / sulphates	High	Medium	Medium/Low
Elasticity moduli MPa	9500	7300	6250
Vapour exchange Gm air x m <sup>2</sup> x hour x mmHg	0.5	0.64	0.71
Capillary water absorption kg(m <sup>2</sup> .min <sup>0.5</sup> )	0.59	0.34	0.29

#### Health & safety

##### Risk Phrases

R36/37/38 Irritating to eyes, respiratory system and skin

R66 Repeated exposure may cause skin dryness or cracking

##### Safety phrases

S22 Do not breathe dust

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S24/25 Avoid contact with skin and eyes

S36 Wear suitable protective clothing