



WHITE PEAK NATURAL HYDRAULIC LIME

User guide for building and repointing

ULTIMATE FLEXIBILITY

WHITE PEAK NATURAL HYDRAULIC LIME

Choosing the correct mix for building and repointing is important. In general the harder and denser the brick or stone and the greater the exposure, the stronger the mortar should be. The strength of the mix will be affected by:

1. The type of sand

Sands for lime mortars should be clean and free of clay and silt. Clay and silt in sands have a negative effect because they demand more water, which reduces the strength and promotes shrinkage. Soft sands with fine rounded grains make weaker mixes. Sharp sands with angular particles make stronger mixes. We would recommend sand containing a small percentage of 3-4mm grit for external mortars where joint size permits.

2. The water content

Adding too much water will reduce the strength and leave an open structure, which will be prone to crumbling and frost damage.

3. Storage of lime and aggregate

It is important that you store the natural hydraulic lime in a clean and damp-free environment, as exposure to moisture will weaken the strength of the Natural Hydraulic Lime (NHL). Opened bags should be folded over at the end of the day and stored in a dry place. Opened bags will be suitable for use for up to three days and should then be discarded. The aggregate should be covered when left for periods of time to avoid contamination and the loss of fines due to rainfall.

4. Mixing

An ordinary drum mixer can be used on small projects or a paddle mixer for larger projects. Use a gauging box or bucket rather than a shovel for measuring the amounts of lime and sand. Add a small amount of water to the mixer first while it is not rotating and then add the hydraulic lime. Switch the mixer on and make a wet slurry. Add the sand and more water and mix for 20 minutes. Do not cut back on the mixing time. Initially the mix will appear to be very dry but workability will improve during mixing. At the end of the 20 minutes more water can be added if required to get the desired workability. Add with caution, as too much water will lead to shrinkage and reduction in the final strength.



Mortar for use in masonry construction

Applications	Proportions by volume NHL 3.5 : Sand	Proportions by volume NHL 5 : Sand
Submerged masonry		1:2
Copings and cappings	1:2	1:3
Parapets and sills etc.	1:2	1:3
Bedding below DPC	1:1	1:2
Bedding above DPC	1:2 to 3	1:3 to 4
Internal and sheltered bedding	1:3 to 4	

Estimated usage

Applications	Approx. number of bricks per 25kg bag	Estimated area of brickwork per 25kg bag NHL
1:1	45	3 to 3.6 m ²
1:2	85	6 to 7.2 m ²
1:3	130	9 to 10.8 m ²
1:4	170	12 to 14.4 m ²

Masonry units should be wetted and damp at the time of laying.

1. Use the mortar within two hours of mixing and then let it set.

2. Set times are dependent on external conditions such as temperature, exposure to wind, rain or sunlight.

3. Do not use if temperatures are below 5°C.

Protection and aftercare

Do not let the mortar dry out too quickly. Try to keep moist for seven days by lightly damping the surface. Porous masonry may need wetting before application. Protect from frost, winds and high temperatures.

Cold weather

Cold temperatures will affect the rate of strength gain and will slow the rate of construction. You will also need to protect your work from frost and water saturation. During winter months cover the top of work and overlap by approximately 300mm each side to keep the work dry. To protect from frost, cover work with hessian or similar sheeting. Remove the covers on warm days to allow the work to warm up and replace the covers in the afternoon. Allow air to circulate between the cover and the masonry. Lime mortar will continue to gain strength for up to one year and often longer.

Repointing is normally done with NHL 3.5 or weaker. The exception to this is for exposed areas such as chimneys, canal, river or sea defence work where the use of NHL 5 is recommended. The general advice for mortar preparation, use and aftercare also applies to repointing. Additionally;

1. Rake out the joint to a minimum of 20mm.
2. Brush away loose material.
3. Wet joints immediately prior to repointing.
4. As the mortar stiffens pack it back hard before the joint is finished off.

Health and safety

White Peak Natural Hydraulic Lime should be treated in the same way as all other cementitious products. When natural hydraulic lime is mixed with water, alkali is released. Precautions should therefore be taken to avoid dry product entering the eyes, nose and mouth and to prevent skin contact. When working in places where dry natural hydraulic lime becomes airborne, protection for the eyes, mouth and nose should be worn. When working with wet natural hydraulic lime mortar, suitable protective clothing should be worn such as long sleeved shirts, full-length trousers, waterproof gloves and wellington boots. Contaminated clothes should be removed and washed before further use. If natural hydraulic lime enters the eye it should be immediately washed thoroughly with clean water and medical treatment should be sought without delay. It should also be washed off the skin immediately.



Please refer to product safety data sheet available from our sales team on 01298 768 181 or at lafargetarmac.com/lime.

Availability

White Peak is available in 25kg paper sacks. Orders of one tonne and over are stacked 40 bags per pallet and shrink-wrapped. It is also available in quantities over one tonne direct or via distributors – call our salesteam on 01298 768 181.

Quality

White Peak complies in all respects with BS EN 459-1. It is manufactured under a quality assurance scheme complying with ISO 9001.

Technical assistance

For further technical assistance please call 01298 768 481 or email buxton.technical@lafargetarmac.com

This information is provided as a general guide only, the purpose of which is to assist the reader in achieving best results, and is not intended to form a specification.



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