

# NHL Mortar Preparation

*NHL Mortar preparation: can be mixed in normal cement mixers.*

## SMALL MIXERS

1. Introduce    of the required sand.
2. Add all of the lime.  
Mix well (about 2 minutes until uniform color is achieved)
3. Add remaining sand.  
Mix well again (1-2 minutes)
4. Continue mixing until required workability is achieved adding water slowly.  
Time of last mix: approx. 10 minutes.

*Note: the best results are achieved by adding water slowly. The mortar should be more like a dough than a slurry. The longer the final mixing time, the more workable (fatter) the mortar will be.*

## LARGER MIXERS

1. Introduce equal parts of the required sand.
2. Add equal part of lime.  
Mix well (about 2 minutes until uniform color is achieved)
3. Add more sand (in equal parts).  
Mix well again (1-2 minutes)
4. Add remaining lime and remaining sand.
5. Mix DRY for a couple of minutes to homogenize and then continue mixing adding water slowly until workability is achieved.  
Time of last mix: approx. 12 minutes.

*Note: the best results are achieved by adding water slowly. The mortar should be more like a dough than a slurry. The longer the final mixing time, the more workable (fatter) the mortar will be.*

A small addition of lime putty (max. 10% of the weight of the NHL binder) can be made. Do not add putty when working with NHL 2. This is to achieve immediate workability and reduce the mixing time. It is not necessary and it is left to the user's preference. If putty is added this should be done before the optimal level of water is added as putty contains water and adding it when the mix is complete would produce a mortar that is too wet and therefore unsatisfactory. The putty addition, within the maximum stated, will reduce the strength of the mortar (see Mortar Tests).

## DOSING

Use standard buckets, always leveled. Once full, tap on the side to ensure that contents settle and fill to level. Dose at the volumes agreed with the supplier (1:1.5, 1:2 etc./ NHL: Sand).

With the correct aggregates and dosages, mortars from Class II to Class IV are easily produced (from 1450 to 290 psi (10 to 2 N/mm<sup>2</sup>)) by using NHL 5, NHL 3.5 and NHL 2 (see also individual products data sheets).

## **REWORKING**

**All St. Astier NHL mortars can be reworked for up to 24 hours (see individual products data sheets). This is due to the absence of cement or gypsum in the lime and to the minimal quantity of aluminates.**

Reworking diminishes potential waste, and mortar can be prepared and left overnight so that a quick start can be made in the morning.

When preparing an NHL mortar for later use, place it on a board after mixing and cover it to avoid contact with possible rain or sun. When re mixing add the least possible water (in some cases it is not necessary to add any). The tradesmen's good judgment is required.

Main Rules : do not over saturate with water, mix well, use well graded sands.
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