

## **Natural Lime Render on Wooden Lath**

### **St Astier Natural Hydraulic Limes (NHL)**

Timber framed buildings, historic or new construction have a tendency to greater movement than solid masonry construction, particularly new green timber construction.

To achieve the maximum degree of tolerance to movement in a render on wooden lath, a low strength mortar of exceptional modulus of elasticity should be used. Plasticity, mainly depending on the free lime content in the binder, is also essential.

The St. Astier range offers 2 products highly suitable for wooden lath work: NHL 2 and EcoMortar.

NHL 2 (Terechaux) : a binder to be used with well graded sharp sands, coarse or fine depending on the use (see: Sands for NHL mortars). Its elasticity moduli is around 9000Mpa at 28 days and the free lime content is over 50%.

EcoMortar is a pre-mixed Natural Hydraulic Lime Mortar that has a modulus of elasticity of 4000 to 5000 Mpa and it is based on NHL 3.5 (type G) or NHL 2 (type F) with free lime content in the region of 25% and over 50% respectively.

Lath should be break and but jointed, clean and sufficiently strong to adequately span between framing members.

On refurbishment and repair work, laths must be thoroughly cleaned to remove old mortar and all dust and should be dampened to avoid moisture absorption from the mortar.

When working with NHL 2 the mortar should have a hair or fibre reinforcing well distributed throughout the mix. In the case of animal hair at least 1.5 kg. of long strong hair per m<sup>3</sup> of mortar will be required, more in some cases. All coats will require hair or fibre reinforcing with the exception of the finishing coat, which should not be greater than 5-6mm.

Mortar should be applied by a laying on trowel to a properly prepared background, ensuring a good penetration between the laths and covering the outer face of the laths by at least 8-10mm.

Control of drying conditions and protection from rain, wind and frost are essential to ensure a good slow rate of curing.

See "Protecting Lime Mortar".

This will vary due to atmospheric conditions and temperature but a minimum curing period of 4 -7 days between coats is recommended. Good keying between coats is essential as well as dampening.

The final thickness of the render coat will be determined by several factors, such as detailing and existing conditions, but in all cases exposure will be the primary consideration. Thicker render coats will be required in areas of high rainfall.

Coats should not be stronger or thicker than the preceding coats.

External rendering on lath is a specialised skill and should only be carried out by experienced trades people.

For internal work see Lime Plaster using NHL.

**For further Guidance, contact your St Astier Distributor.**

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