

## **Masonry Cladding with Natural Lime**

### **St. Astier Natural Hydraulic Lime products for use with masonry cladding.**

For the purpose of this document Masonry Cladding means thin sections of masonry each one fixed back to a frame or substructure or to themselves. The masonry will generally be between 40mm and 70mm thick.

Its main function will be decorative. Many cladding designs have units fixed in such a manner that normal masonry coursing and jointing is not part of the design and continuous perpendicular jointing is common.

Cladding can be laid on a bed of mortar or retrospectively jointed.

In many instances it is simpler to retrospectively joint the cladding as the bed width does not offer sufficient stability for the masonry to stand one unit on top of another and depends on fixing by mechanical means.

The design of the fixings will determine whether or not the construction can be built without movement joints. Fixings that have horizontal and vertical movement slots but provide lateral restraint usually allow walls to be constructed without movement joints, provided a mortar with a low modulus of elasticity is used.

The need for compressive strength in this type of work is not significant with a mortar of 1-2 Nmm<sup>2</sup> at 28 days being usually adequate for the purpose.

NHL 2 and NHL 3.5 are very suitable binders for the production of cladding mortars. Their elasticity moduli is adequate in most instances and their free lime content, mainly responsible for plasticity, is high ( 25% and 50% respectively).

The St. Astier range also includes the premixed EcoMortar as an ideal material for bedding and retrospectively jointing cladding units. It has a modulus of elasticity of 4,000 to 5,000Mpa and a compressive strength at 28 days of ca. 1 N/mm<sup>2</sup>.

EcoMortar can be laid with a trowel or placed in the joints with hand or mechanically operated caulking gun and can be supplied in a range of colours to suit most purposes and materials.

Ecomortar is available in a Type F for finer joints of 4-8mm and in a Type G for joints up to 15mm. EcoMortar can be used in most instances for cladding work but the specifier should always check the climatic environment and programme for the works when considering the best materials for the project.

Should exposure be a major consideration it will be possible upon request to produce a quicker setting mortar to resist adverse weather conditions and early frost, using other St. Astier NHL binders but the modulus of elasticity will be higher.

Please consult your St Astier Distributor for specific information about premixed mortar for cladding.

An exceptionally suitable mortar for this work is Color Chausable EF. The elasticity moduli of this mortar is between 2000-4000 MPa, therefore making the mortar more flexible to accept movements. The granulometry is 0-0.8mm and the range of colour will suit most designers.

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

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