



# Tŷ-Mawr

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sustainable building materials for healthier homes...deunyddiau adeiladu cynaliadwy ar gyfer cartrefi iachach

## **Working with Ecomortar Premixed Mortar™** **Construction, restoration, refurbishment and repair mortars** From the range of St Astier Natural Hydraulic Limes (NHL) and mortars

**EcoMortar™** is a premixed product designed to provide all the benefits of traditional lime mortars in all sectors of today's building industry.

**EcoMortar™** contains a natural water retainer and air entrainer to improve the curing process, reduce the effects of moisture loss and aid workability. Because **EcoMortar™** is made with properly graded sands it further reduces the need for contractors and specifiers to check local sands and aggregates for compliance. Well graded sands such as those used in **EcoMortar™** reduce shrinkage, improve vapour transfer and workability.

The range of colours available is vast and pigmentation is finely controlled to an extent that will guarantee the same colour in successive batches. The dispersion of the pigments is very high to ensure that no colour streaks will appear. The use of a pre-coloured material eliminates the need for painting.

**EcoMortar™** offers the discerning builder extremely high vapour permeability ensuring that no moisture will be retained in the built structure. It also has a superior elasticity than cementitious products and greater natural workability. **EcoMortar™** can be worked for longer period than cementitious mixes and has the qualities of lime finishes, warm and aesthetically very pleasing with colour tones and effects similar to lime washes but far more durable. Its main eco friendly characteristics are:

- produced with lower energy than cementitious mixes
- CO2 re-absorption (between 30 and 40% of the binder content)
- Recyclability of masonry units
- reduction or elimination of condensation
- will not deteriorate timber
- absence of cement, VOC, GGBS, PFA, heavy metals or other potentially toxic materials

Mechanical properties ensure:

- Workability
- Exceptional elasticity
- Good setting and hardening time
- Vapour permeability
- Low capillarity
- Low shrinkage
- Various degrees of waterproofing

The range includes products (**the R series**) that allow cost effective interventions on a multitude of backgrounds including where different construction elements are present and other difficult backgrounds where normally lime mortars would be unsuitable.

In the waterproofed products, this is achieved by incorporating a naturally occurring component which fills the voids, impeding water penetration but allowing breathability. With **EcoMortar™ WP** a 5mm coat is sufficient to achieve the required effect.

The **EcoMortar™** range based on St. Astier NHL3.5 and NHL 2 comprises the following mortars:  
**C** – Construction mortars **F** – Finishing mortars **WP** – Highly waterproofed.

Type C and F with NHL 3.5	Type C & F with NHL 2	Type WP
Normal backgrounds/masonry units in high and moderate exposure areas	Weaker surfaces/masonry units in low exposure areas. Building mortar for lightweight blocks (>3.9N)	Used wherever waterproofing is deemed necessary as finishing coat in renders and pointing.

EcoMortar™ is available in different granulometries. The maximum grain sizes are:				
UF	EF	TF	F	M
0.6 mm	0.8 mm	1.3 mm	1.8 mm	2.5 mm
R Series only	All	All	All excluding WP series	ALL excluding WP and R series

This range of granulometries allows all different kind of work, from ashlar work (2-3mm joints) to larger building and joint work. Similarly, renders and plasters can be built up to achieve all types of finishes.

### EcoMortar™ R Series

In use in France over the last decade, the **EcoMortar™ R Series** presents great range of **cost effective and easy** solutions when working with difficult backgrounds and in the repair or refurbishment of existing renders/plasters and ornamental features. With the **R Series** the builder has the possibility of going over surfaces that normally require a multitude of coats or treatments. It also allows an aesthetically pleasing finish with a coloured **EcoMortar™ R** or a mineral paint finish, adding waterproofing properties and obtaining the required texture. The **R Series** mortar contains a natural resin that ensures great bond characteristics without impeding breathability. Combined with the absence of shrinkage this means that the R Series mortars are eminently suitable to be used also in low strength solid backgrounds.

In external uses, the **R Series** mortars require a waterproofed coating with either **EcoMortar™ WP** or a suitable, breathable, mineral paint.

The R series mortars offer:

- a highly diminished time between coatings (a finishing coat can be applied after 2 to 4 hours)
- reduction of working time
- possibility of resurfacing in part or totally existing renders/plasters without occurring costs, potential damage to the background and time normally associated with taking off existing mortars
- possibility of unifying backgrounds with different materials
- the **absence of shrinkage** allows even weak surfaces to be coated prior to receiving a finish
- possibility of working with thin coatings  
4-5mm of Ecomortar R 50 or R 100 are sufficient either to be painted or receive a thin finishing coat
- good bonding characteristics to a multitude of building materials
- a choice of granulometries (**UF, TF and F**)

### Suitable backgrounds:

R100 : Painted backgrounds (subject to paint being sound and well bonded), smooth concrete/cast concrete (free of demoulding oils), waterproofed surfaces, tiles, metal components (rust treated).

R 50: all other backgrounds, including plasterboards, timber elements, bricks, stones, construction blocks, non waterproofed cement surfaces, gypsum plasters. On internal insulation panels, MDF, plywood, the application is permitted. Externally it is important that the insulation panels or other materials are not affected by humidity (dew point forming within the panel) causing in time a deformation of the panel and consequent movement. Please check with the manufacturers of the panels.

All Ecomortar™ mortars can be applied manually or with a hopper spray gun. On special order, machine sprayable mortars can be supplied.

**Ecomortar products carry a 10 years Guarantee for manufacturing defects.**

Technical queries can be addressed to your [St. Astier Distributor](#) or to the [Technical Enquiry Service](#)

See also: [Ecomortar™ Data Sheet](#)

[Ecomortar™ R Series data sheet](#)

[Protecting Lime Mortars](#)

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