



# Tŷ-Mawr

product range



[www.touchbasedesign.co.uk](http://www.touchbasedesign.co.uk)

glaster™

Alarmed by the environmental effects of large scale sand extraction, Tŷ-Mawr decided to improve the environmental credentials of their traditional lime mortars, plasters and renders by identifying alternative aggregates. The result is “**glaster™**”, a range of products in which various colours and grades of crushed, recycled glass is used instead of sand.

This unique combination of materials provides all of the benefits of traditional lime-based products with a contemporary ‘twist’. The resulting product range appeals to the environmentally-minded as well as those looking for a distinctive aesthetic.

## Why Waste?

“It’s disgraceful that less than 20% of our rubbish is recycled or composted in the UK. The UK glass recycling rate is among the lowest in Europe. But 30 gallons of oil are saved for every tonne of glass which is recycled”. FRIENDS OF THE EARTH

# glaster™



glaster™ render - winner Grand Designs Eco-house 2006 [www.touchbasedesign.co.uk](http://www.touchbasedesign.co.uk)



Henry with glass cullet - the same consistency as sand



Etched glass sign on glaster™ wall

glaster™ is a blend of lime (binder) and recycled glass (aggregate), to make plasters, renders and mortars which are suitable for old buildings, ecological new builds or for those wanting to add a surface finish with a difference.

## Why Lime?

- > has been successfully used in building for over 4000 years.
- > helps to control condensation and damp, thus creating a healthier building.
- > enables other sustainable building materials to be used such as wood, straw, woodfibre boards, clay and earth.
- > can be recycled at the end of its useful life and will allow other building components to potentially be reclaimed and reused.
- > is less damaging to the environment compared to its modern counterparts.

## Why Glass?

- > reduces the level of sand extraction.
- > develops a market for a waste product.

## Why glaster™?

- > technically excellent with some performance advantages.
- > hand or spray application.
- > building and occupant health benefits.
- > produces a beautiful, unique aesthetic, (which can be varied by combining different colours of glass with natural pigments added to the lime).

## Where?

- > most conventional backgrounds - stone, brick, block and building boards.
- > for building or pointing up-stonework, brickwork or blocks.
- > externally as a render with a flat or roughcast finish.
- > internally as a plaster which can be painted, trowelled to a smooth finish or sponged to reveal more glass.



glaster™ products are available in two premixed ranges:

> **Traditional 'Ready-to-use'** – manufactured using traditional fat lime putty and recycled crushed glass. This product range is ideal for plastering internally or repairing old buildings where it is important to maintain the flexibility and vapour permeability of the building. It is ready-to-use and simply requires 'knocking-up', prior to application.

> **Dry Hydraulic** – manufactured using hydraulic limes and recycled glass. The three strengths are available:

- NHL5 – *Eminently Hydraulic* – used in 'extreme' circumstances where a quicker, harder set is required usually as a mortar or for flooring;
- NHL3.5 – *Moderately Hydraulic* – used in more 'usual' conditions e.g. stone, brick or block work as a render, plaster or mortar.
- NHL2 – *Feebly Hydraulic* – used for softer bricks and stone as a plaster or mortar.

This range is supplied as a dry-premix to which water must be added on-site and then mixed in a mill/site mixer.

The raw materials comply with:

Glass Aggregate	BS EN 13139 2002
Natural Hydraulic Lime	BS EN 459 PART1 2001
Quick Lime	BS EN 459 PART 1 2001

# Product Range

## glaster™ Ecoplaster ...internal plastering

This plaster can be used as a simple replacement for traditional lime plaster made with sand. It can then be painted with a vapour-permeable paint or left as a smooth trowelled finish.

### Products Available

#### Ready-to-Use (Fat Lime/Wet Premix)

	Haired	Unhaired
Bulk Bags per Tonne	£145.00	£130.00
3 tonne+ -5%	£137.75	£123.50
6.5tonne+ -7.5%	£135.00	£120.25
14tonne+ -10%	£130.50	£117.00
25 Kg Bag	£4.40 (£176 per tonne)	£4.00 (£160 per tonne)
20 litre Bucket	£6.40	£6.00

#### Hydraulic (Dry Premix, Unhaired - hair can be supplied separately)

1 tonne bulk bag	= £207.50 (produces 1.1 tonne wet mix)
3 tonne+ -5%	= £197.20
6.5tonne+ -7.5%	= £192.00
14tonne+ -10%	= £186.80
25Kg Bags	= £6.20 (27.5kg wet)
20 litre Bucket	= £8.00 (27.5kg wet)

*Please call to discuss different surface finishes e.g. pigmented plasters, different coloured glass etc.*

Blue Pigmented glaster™ (with clear glass)



## glaster™ Roughcast Render ...external roughcast

Using a coarser grade of crushed glass and spray applying the product – a unique render finish can quickly be applied to blockwork, masonry, brick and building boards.

### Products Available

#### Ready-to-Use (Fat Lime/Wet Premix)

Bulk Bags per Tonne	£130.00
3 tonne+ -5%	£123.50
6.5tonne+ -7.5%	£120.25
14tonne+ -10%	£117.00
25 Kg Bag	£4.00 (£160 per tonne)
20 litre Bucket	£6.00 (£240 per tonne)

#### Hydraulic (Dry Premix)

1 tonne bulk bag	= £207.50 (produces 1.1 tonne wet mix)
3 tonne+ -5%	= £197.20
6.5tonne+ -7.5%	= £192.00
14tonne+ -10%	= £186.80
25Kg Bags	= £6.20 (27.5kg wet)
20 litre Bucket	= £8.00 (27.5kg wet)

*Please call to discuss different surface finishes e.g. pigmented plasters, different coloured glass etc.*

External glaster™ Roughcast Render



Internal glaster™ Plaster



Smooth Blue glaster™



Smooth Green and Amber glaster™



External glaster™ Render – Adams and Collingswood Architects, New Offices, West London

# Product Range



glaster™ Screed being laid

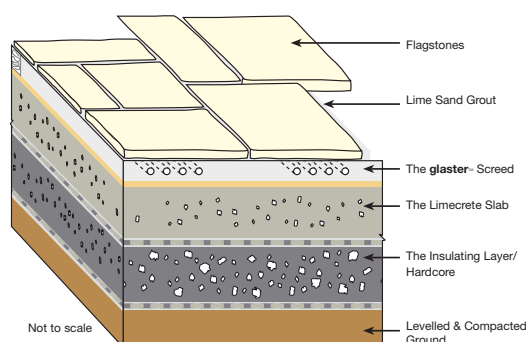


A heating pipe in the glaster™ screed



## glaster™ Screed ...screeding floors

Perfect for use with our insulated limecrete floors, compatible with underfloor heating onto which flagstones, timber floors (ventilated) or tiles can be laid.



Cross section of limecrete floor  
[www.limecrete.org.uk](http://www.limecrete.org.uk) for further information

glaster™ was chosen by the National Museum and Galleries of Wales for the screed before laying the flagstones on their insulated limecrete floor in the 13th Century Church at St Fagan's.

### Products Available

#### Hydraulic (Dry Premix)

1 tonne bulk bag	=	£207.50 (produces 1.1 tonne wet mix)
3 tonne+	-5%	= £197.20
6.5tonne+	-7.5%	= £192.00
14tonne+	-10%	= £186.80
25Kg Bags	=	£6.20 (27.5kg wet)
20 litre Bucket	=	£8.00 (27.5kg wet)

### Table of Typical Compressive Strengths

TYPE OF glaster™	TYPICAL COMPRESSIVE STRENGTH (N/mm <sup>2</sup> ) (tested @ 90 days)
Traditional Fat Lime	1
NHL2	2
NHL3.5	2.5
NHL5	4

Calch Tŷ-Mawr Lime Tŷ Mawr, Llangasty, Brecon, Powys LD3 7PJ  
Tel: 01874 658000 Fax: 01874 658502  
email [tymawr@lime.org.uk](mailto:tymawr@lime.org.uk)

## glaster™ Mortar ...building and pointing

This mortar is ideal for building or pointing blockwork, masonry and brick. It is available as a dry premixed to which water must be carefully gauged on site. See table opposite for compressive strengths.

### Products Available

#### Ready-to-Use (Fat Lime/Wet Premix) -

1 tonne Bulk Bags		£130.00
3 tonne+	-5%	£123.50
6.5tonne+	-7.5%	£120.25
14tonne+	-10%	£117.00
25 Kg Bag		£4.00 (£160 per tonne)
20 litre Bucket		£6.00 (£240 per tonne)

#### Hydraulic (Dry Premix)

1 tonne bulk bag	=	£207.50 (produces 1.1 tonne wet mix)
3 tonne+	-5%	= £197.20
6.5tonne+	-7.5%	= £192.00
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25Kg Bags	=	£6.20 (27.5kg wet)
20 litre Bucket	=	£8.00 (27.5kg wet)

## Product Support

Please call us if you would like further information or assistance with a proposed project. We are able to offer production of samples, assistance with calculating quantities, application guides and can arrange for training (onsite or at our training premises at Tŷ-Mawr) if required.

