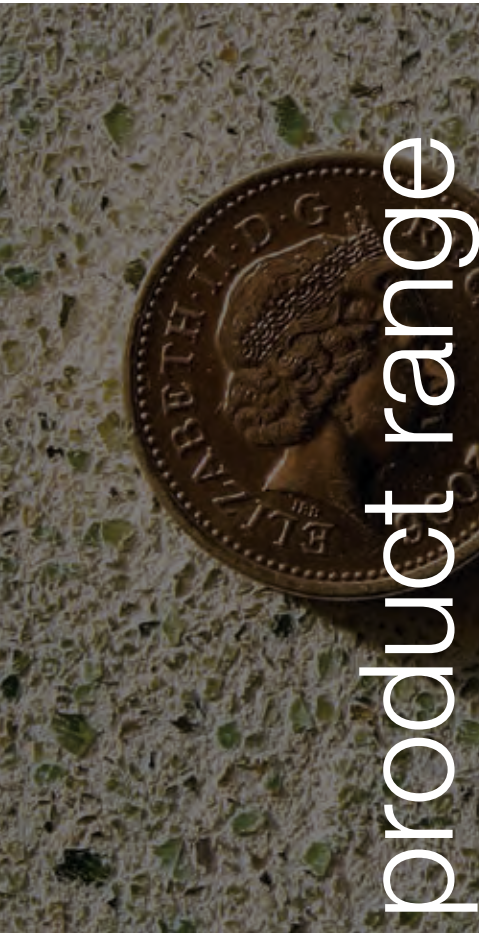




www.lime.org.uk

# Tŷ-Mawr

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



product range



Courtesy: D.Morgan

glaster®

## ...breathing life into buildings...

Alarmed by the **environmental effects of large scale sand extraction**, we at Tŷ-Mawr decided to improve the environmental credentials of our traditional lime mortars, plasters and renders by identifying more **sustainable aggregates**.

One of the results is "**glaster®**", a range of products in which various colours and grades of crushed, recycled glass is used instead of virgin sand.

These innovative materials provide all of the benefits of traditional lime-based products but 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



Caring for buildings...Caring for the environment...Caring for health...  
Gofalu am adeiladau...Gofalu am yr amgylchedd...Gofalu am iechyd...





Courtesy: Facit Homes



Courtesy: Adams & Collingwood Architects



Courtesy: B.Sargent  
Pargetted Peacock in glaster®

glaster® is a blend of **British 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 recycled glass?

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

## why glaster®?

- > **technically excellent** with some performance advantages over sand.
- > **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 wood wool boards.**
- > as a mortar 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 **painting, trowelled** to a smooth finish or **etched** to reveal more glass.

## availability

glaster® products are available in two premixed ranges:

- > **traditional 'ready-to-use' wet premix** – 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 mixing, prior to application.
- > **dry hydraulic premix** – manufactured using a **moderately hydraulic lime** and **recycled glass** which is suitable in most 'usual' conditions e.g. for stone, brick or block work as a render, 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. Silos are also now available. Please call to discuss your requirements.

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

glaster® is manufactured by Tŷ-Mawr in Wales in a facility whose quality management system is certified as meeting the requirements of ISO9001:2008



Courtesy: Nick Wilson Architects

# .renders... roughcasts...

## glaster® plaster/render

glaster® plaster is suitable for **internal plastering** as well as **external rendering**. It is available in a **'self-coloured' range** – see below – which can be trowelled smooth or etched to reveal more of the glass aggregate. Alternatively, it can be painted with a breathable paint – see [www.lime.org.uk](http://www.lime.org.uk) for appropriate paints.

We are also able to **'tailor-mix'** a specific colour for you – please contact us to discuss your requirements.



## self-coloured range



NATURAL



CREAM



PALE YELLOW



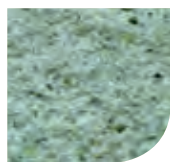
DEEP YELLOW



BURNT UMBER



DEEP GREY



STONE GREEN



BRICK PINK



DEEP ORANGE

Whilst every effort is made to ensure the accuracy of colour, due to the limitations in the print process, variations will occur. Please ask for an actual sample before specifying a colour.



## glaster® plaster product selection

Building Material*	Site Type	Suggested Base Coat	Suggested Build-up	Suggested Top Coat – please note the top coat should be softer and thinner than previous coats	Suggested Build-up
Cob, Rammed Earth, Strawbale° (haired base coats)	Internal	glaster® Fat Lime (haired) Plaster	2 x 9mm	glaster® Fat Lime (unhaired) Plaster	1 x 6mm•
	External	glaster® Fat Lime (haired) Plaster	2 x 9mm	glaster® Fat Lime (unhaired) Plaster	1 x 6mm
Reed Mat, Reed Board (haired base coat)	Internal	glaster® Fat Lime (haired) Plaster or glaster® Dry Hydraulic Lime Plaster	2 x 9mm 2 x 9mm	glaster® Fat Lime (unhaired) Plaster	1 x 6mm•
	External	n/a		n/a	
Celenit Wood Wool Boards (mesh base coat)	Internal	glaster® Fat Lime (unhaired) Plaster or glaster® Dry Hydraulic Lime Plaster	1 x 6mm 1 x 6mm	glaster® Fat Lime (unhaired) Plaster	1 x 6mm•
	External	glaster® Dry Hydraulic Lime Plaster	1 x 9mm	glaster® Dry Hydraulic Lime Plaster	1 x 6mm
Woodfibre Board (mesh base coat)	Internal	glaster® Fat Lime (unhaired) Plaster or glaster® Dry Hydraulic Lime Plaster	1 x 6mm 1 x 6mm	glaster® Fat Lime (unhaired) Plaster	1 x 6mm•
	External	glaster® Dry Hydraulic Lime Plaster	1 x 9mm	glaster® Dry Hydraulic Lime Plaster	1 x 6mm
Lath (internal only), Soft Stone	Internal	glaster® Fat Lime (haired) Plaster	2 x 9mm	glaster® Fat Lime (unhaired) Plaster	1 x 6mm•
	External	glaster® Fat Lime (haired) Plaster or glaster® Dry Hydraulic Lime Plaster	2 x 9mm 2 x 9mm	glaster® Fat Lime (unhaired) Plaster or glaster® Dry Hydraulic Lime Plaster	1 x 6mm 1 x 6mm
Soft Brick (mesh base coat)	Internal	glaster® Fat Lime (unhaired) Plaster or glaster® Dry Hydraulic Lime Plaster	2 x 9mm 2 x 9mm	glaster® Fat Lime (unhaired) Plaster	1 x 6mm•
	External	glaster® Dry Hydraulic Lime Plaster	2 x 9mm 2 x 9mm	glaster® Dry Hydraulic Lime Plaster	1 x 6mm 1 x 6mm
Hard Stone (haired base coats)	Internal	glaster® Dry Hydraulic Lime Plaster	2 x 9mm	glaster® Dry Hydraulic Lime Plaster	1 x 6mm•
	External	glaster® Dry Hydraulic Lime Plaster	2 x 9mm	glaster® Dry Hydraulic Lime Plaster	1 x 6mm
Hard Engineering Brick, Concrete Blocks (mesh base coat)	Internal	glaster® Dry Hydraulic Lime Plaster	2 x 9mm	glaster® Dry Hydraulic Lime Plaster	1 x 6mm•
	External	glaster® Dry Hydraulic Lime Plaster	2 x 9mm	glaster® Dry Hydraulic Lime Plaster	1 x 6mm
Insulation Blocks* (haired base coat)	Internal	glaster® Dry Hydraulic Lime Plaster	2 x 9mm	glaster® Dry Hydraulic Lime Plaster	1 x 6mm•
	External	glaster® Dry Hydraulic Lime Plaster	2 x 9mm	glaster® Dry Hydraulic Lime Plaster	1 x 6mm

Dub out uneven surfaces prior to applying first coat. °May require more coats due to waviness of bales.\*Insulation blocks have very high suction, be careful to control suction. Available in a coloured range and with different coloured glass, when available. •or for a fine finish add Fat Lime Internal Top Coat Plaster, 1 x 3mm coat. Please note: finish coats are applied at approximately 3-5mm thicker than the suggested build-up and scraped back to stated thickness using a render scraper.



# ...and mortars.



External Roughcast glaster®

## glaster® external roughcast

Using a coarser grade of crushed glass and by **spray applying** the product – a unique render finish can quickly be applied to blockwork, masonry, brick and building boards. The increased surface area of such a finish helps the evaporation of moisture, it is therefore an extremely **effective finish** for very **exposed elevations**.



Self coloured glaster® (brick pink)

glaster® plaster/render	Approximate Coverage
1 tonne of wet premix	54sqm per 6mm coat
25kg bag / 20 litre bucket wet premix	1.3sqm per 6mm coat
1 tonne dry premix	67sqm per 6mm coat
20 litre bucket dry premix	1.7sqm per 6mm coat

### table of typical compressive strengths

TYPE OF glaster®	TYPICAL COMPRESSIVE STRENGTH (N/mm <sup>2</sup> ) (tested @ 90 days)
Traditional Fat Lime	1.16
NHL3.5	3.94

Self coloured glaster® render



## glaster® mortar

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.

glaster® mortar	Approximate Coverage
1 tonne of wet premix	Pointing 40sqm (stone) 100sqm (brick) Building 4sqm (stone @ 450mm thick) Building 900 bricks
25kg bag / 20 litre bucket wet premix	Pointing 1sqm (stone) 2.5sqm (brick)
1 tonne dry premix	Pointing 50sqm (stone) 100sqm (brick) Building 4.2sqm (stone @ 450mm thick) Building 1125 bricks
20 litre bucket dry premix	Pointing 1.25sqm (stone) 2.75sqm (brick)



Courtesy: Marchini Curran Associates & Softroom, duBoulay Contracts Wahaca Mexican Restaurant, London

## 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, specification clauses, a list of contractors and can arrange for training (onsite or at our training premises at Tŷ-Mawr) if required.



version 2/2015

Units 5 and 12, Brecon Enterprise Park, Brecon, Powys LD3 8BT Tel: 01874 611350  
Training and Manufacturing, Tŷ-Mawr, Llangasty, Brecon, Powys LD3 7PJ

For further information on any product or system in this leaflet or to keep up with developments at Tŷ-Mawr, please visit our website [www.lime.org.uk](http://www.lime.org.uk) and register for regular updates!

Disclaimer - every effort has been made to ensure the accuracy of the information and diagrams in this leaflet, however Tŷ-Mawr can not be held responsible for any direct or indirect loss or damage caused by any inaccuracies. Please call us to check information before ordering.  
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