

Appendix 4:

Ty Mawr SubLime Flooring³

³ Please be aware that this is an example of an appropriate product only and should not be taken as an endorsement – other products and manufacturers are available.



Tŷ-Mawr
sublime®

Our LABC & LABSS Registered breathable, insulated floor system.

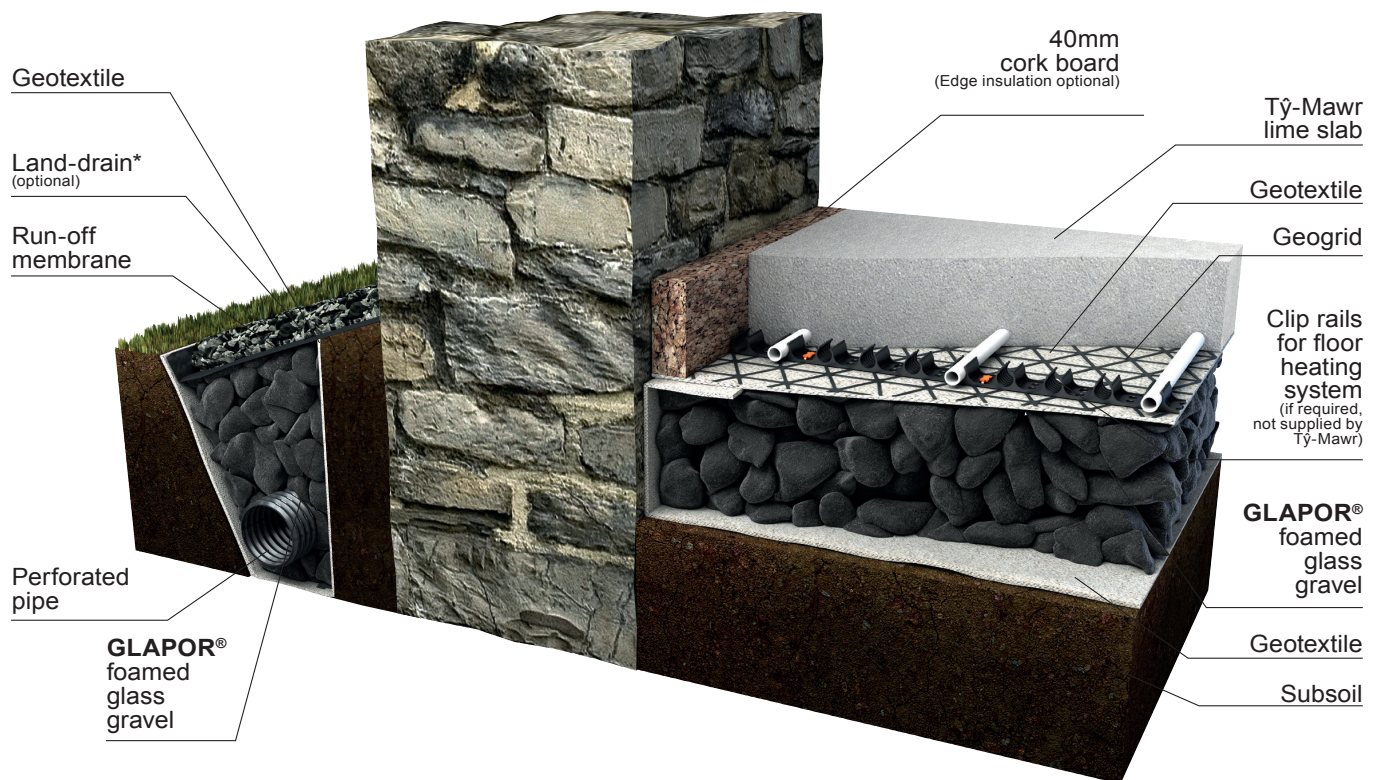
LABC registered detail streamlines Building Regulations applications saving time and money.

From the birth of our innovative Limecrete flooring system, launched in 1998 as a breathable, lightweight alternative to cement-based concrete, we at Tŷ-Mawr have been selecting and testing various materials and combinations of materials to both simplify the installation process and improve the 'green' credentials of our floors.

Following developments in the manufacturing process of the GLAPOR® foamed glass gravel and extensive testing of our recycled lime slab product we are proud to announce the launch of our first breathable, insulated floor system which can be used with or without underfloor heating - 'sublime®'.

The sublime® floor's breathability makes it ideal for use within existing solid wall properties and its excellent environmental credentials along with its simplicity and ease of installation makes sublime® an equally appropriate choice for new builds and extensions!

GLAPOR® foamed glass gravel is the most structurally and thermally superior product we have ever supplied for floor applications. By using GLAPOR® foamed glass gravel within the insulation layer of your floor savings can also be made on installation costs due to its ability to compact to a weight bearing surface. GLAPOR® foamed glass gravel is manufactured using 100% recycled glass.



Please call to discuss if a radon barrier is required.

The external land drain is your first defence against moisture flowing towards the building. An internal land drain is optional and only required if there has been evidence of moisture in the past that might require management.

sublime®
insulated limecrete floor



The sublime® system can be designed for use with or without underfloor heating.

Installing the underfloor heating pipes within a higher density thermally conductive layer eliminates the need for two layers (slab and a screed). As a result, the sublime® floor offers many significant benefits and savings:

Advantages of the sublime® floor system

- **Reduced overall excavation depths:** When compared to conventional Limecrete systems using a lightweight insulating slab layer plus a higher density screed layer to contain the underfloor heating.
- **Reduced wet trades and processes:** As only one wet mixed layer is required over the GLAPOR® glass gravel, it saves on labour and the cost of materials when compared to previous systems.
- **Reduced curing times:** By eliminating the need for two layers curing times are reduced by approximately 3 weeks.
- **Improved energy efficiency and response times of under floor heating systems:** As the insulation material is now directly beneath the heat source the heat drift associated with other systems is significantly reduced.
- **Reduced material quantities and therefore reduced delivery costs.**
- **LABC & LABSS Registered detail:** (Updated April 2016*) Recognised in all local authority areas in England, Scotland and Wales, the registered detail will help to streamline and simplify the planning application and building control process for your project.
- **Winner of the Wales Regional LABC Building Excellence Award 2013 'Best Technical Innovation'.**

N.B sublime® slab requires 20 mins mix time after the addition of all of the water. Please plan accordingly prior to materials being delivered on site.

Customer confidence in our systems is vital which is why at Tŷ-Mawr we invest heavily in product testing and certification. Our sublime® floor system, like the Limecrete system before it, carries its LABC Registered detail.

Our team are able to design your floor: to meet the needs of your specific building, ensuring that you get the best performance for your building and as well as meeting building regulations if required. For more information, visit www.lime.org.uk and complete our simple online form to get a free calculation of components for your floor.



Courtesy: Limecrete Company, www.limecrete.co.uk

Compressive and Flexural Strength

Research carried out by the University of Glamorgan

Age	Compressive Strength (N/mm ²)	Flexural Strength (N/mm ²)	Density
28	4.2	-	2140
56	6.1	3.8	2020
90	7.2	4.7	1990

Our research has suggested that the considerations applicable to cementitious concretes with regard to expansion joints are not applicable to lime based concretes. Hydraulic Lime generates little heat during the initial chemical hydraulic set and limecrete has a good flexural strength to compressive strength ratio. These properties mean that huge savings can be made in terms of the labour and equipment usually required to fabricate dowelled and induced contraction joints in cement concrete ground bearing slab. For further information contact limecrete@lime.org.uk

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