

Limecrete Breathable Flooring



Mike Wye Limecrete and Glasscrete are LABC registered floor systems

LABC represents all local authority building control teams in England and Wales. Members work cooperatively with building owners, home owners, architects, plan drawers, developers, building contractors and other professionals to ensure buildings are safe, healthy and efficient to meet the standards set by the building regulations.

Breathable Flooring

The fundamental issue facing the owners of older properties is how to bring them up to modern standards with regard to heating, insulation, air-tightness and freedom from damp. Homes and workplaces need to be functional spaces where people can live and work comfortably. Increasingly, they also need to be energy efficient, satisfying the ever-growing demand for carbon reduction while retaining their distinctive character



Today's Building

Regulations require the solid floors of most buildings to have high levels of insulation and high compressive strength as well as impermeable barriers to prevent moisture migrating through the floor into the room. The Building Regulations are absolute for new dwellings and are the goal for existing traditional buildings, but the regulations can be a little more flexible for old buildings if there are good reasons not to conform.

Where a new floor slab is to be created, one option is to use a slab based on lime ([Limecrete](#) or [GlassCrete](#)) which is breathable, rather than OPC (Ordinary Portland Cement), which is virtually impermeable. A lime floor can be designed to meet modern insulation requirements and can incorporate under-floor heating (UFH). It may be possible in some cases to re-lay the original surface on top of the new slab if desired, although this can be difficult to achieve successfully and requires a methodical approach if the character of the floor is not to be altered.

Preventing ground water penetration requires some form of capillary break. This can be achieved using an impermeable damp-proof membrane (DPM) as is common in the US and would usually include petro-chemical based insulation. An arguably better approach is to use recycled foam glass (GlassCrete) or expanded clay aggregate (Limecrete) insulation as loose-lay insulation. Being made from re-cycled glass and clay, respectively, these are more durable and widely perceived to be more environmentally friendly than insulation based on petro-chemicals. Furthermore, due mainly to the open pore structure of these aggregates, they have low capillary attraction to moisture.

This website details the buildup of the various lime flooring options available. Please use the menu above to navigate these, or click [here](#) for the main Mike Wye website