

MIKE WYE

— & ASSOCIATES —

GlassCrete®

GEOCELL
FOAM GLASS GRAVEL

30mm cork board
perimeter insulation

Mike Wye
lime screed

Clip rails for heating pipes
(if required, not supplied by Mike Wye)

Geogrid
(if installing under floor heating)

Geotextile membrane

GEOCELL foam glass
10/30 - min 80mm
10/60 - min 150mm

Geotextile membrane

Subsoil

When the existing floor has been removed, excavate (if required) to the depth as calculated by Mike Wye & Associates, taking care not to undermine foundations. Accurately level and compact the surface, variations in levels can significantly increase material consumption.

NOTE - Please consult a specialist for high water table/ground water issues as additional drainage maybe required.

Once level, lay the geotextile membrane over the soil, overlapping joints. Ensure the geotextile laps up the walls far enough to fold back onto the GEOCELL foam glass.

Prior to filling the area with GEOCELL, install marker posts to indicate the finished level after compaction. Allow a compaction ratio of 1.3:1 by measurement, e.g. Loose fill to 195mm and compact to 150mm. GEOCELL bags can then be emptied manually or with mechanical assistance within the floor area.

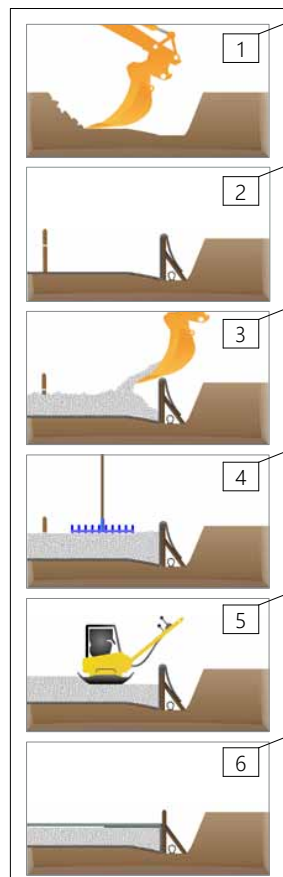
Rake the GEOCELL level ensuring an even fill depth is achieved. Should the compacted fill depth exceed 300mm height, the installation must take place in multiple layers.

Once the loose GEOCELL has been leveled, compaction can be undertaken with a light vibration plate with strong drive (~80 - 120kg, approx frequency 100Hz, centrifugal force <18kN).

Alternatively a medium weight, non-propelled or self-propelled roller, running weight <7.5t, static line loads ~ 20kg/cm, approx frequency 65Hz.

Compaction is finished when the target level is reached, further compaction will increase material consumption. Remove posts and level off.

Fold back the excess geotextile around the edges over the compacted GEOCELL, then lay the second layer of geotextile, again lapping up the wall to the depth of the screed.



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7 If installing underfloor heating, the Geogrid is now laid over the second layer of geotextile. This is used as a fixing layer for pipe clip rails (not supplied), which are cable tied to the Geogrid. Heating pipes can be fixed directly to the Geogrid using cable ties, however this will position the pipes lower within the screed.

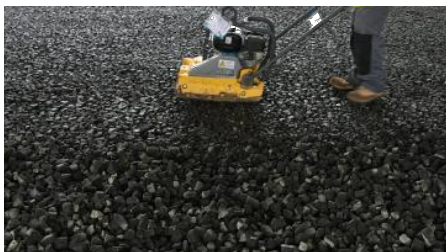
8 Cork insulation should now be positioned around the perimeter walls to the depth of the screed (typically 100mm). These are supplied in 1000mm x 500mm sheets and will need to be cut on site. The cork also acts as a screeding board, however additional shuttering maybe required for large floor areas.

9 Mix 2 parts screed aggregate to 1 part Mike Wye lime binder by volume, adding sufficient water to make a stiff but workable mix. If additional screed fibres are specified, add 1kg per cubic metre of screed. Mix for approximately 20 minutes after adding sufficient water. Lay and tamp the screed level, then float to appropriate finish.

10 The curing time is approximately 7-14 days depending on temperature, care should be taken to ensure the screed does not dry/cure too quickly or too slowly. In addition, if you have installed underfloor heating this should not be used for a minimum of 4 weeks. Always follow underfloor heating suppliers guidelines.

Coverings:

Ensure that the lime screed has dried out sufficiently to allow for finishes to be laid. For maximum breathability lay natural materials as finishes only. Lay all stone, slate or other slab finishes in lime mortar bedding and use only a lime:sand grout between slabs. Other floor finishes may be considered but may affect performance. Please consult with Mike Wye & Associates if unsure.



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Sustainable & Traditional Building Specialists

Buckland Filleigh Sawmills, Buckland Filleigh, Beaworthy, Devon, EX21 5RN.
01409 281644 sales@mikewye.co.uk www.mikewye.co.uk