

TECHNICAL BULLETIN **TOP OF SLAB INSULATION**
No.13 - 021821

Placing a layer of rigid insulation under concrete slab-on-grades is a common practice at reducing heat-loss through the slab during winter or in colder climates. Subterra or Subterra Plus is designed for this application.

However, for existing slabs or even new builds instead of placing rigid insulation under the slab it can be installed directly on top. Placing insulation on top of the slab does have additional benefits and cautionary notes to consider.

- Provides a thermal break against the slab - slows the rate of heat transfer through the slab compared to under-slab insulation.
- Creates a more comfortable walking surface. Eliminates cold concrete surface and provides a softer floor to walk on.
- Existing drains need to be brought flush to finished floor surface and emergency drains should be considered to avoid water buildup, such as areas around dishwashers, washing machines, etc.

For top of slab insulation either Halo Subterra or Interra is recommended. However, Interra is available in densities as low as 10 psi which has enough compressive strength to resist over 600 lb/ft² if used as recommended within this document.¹

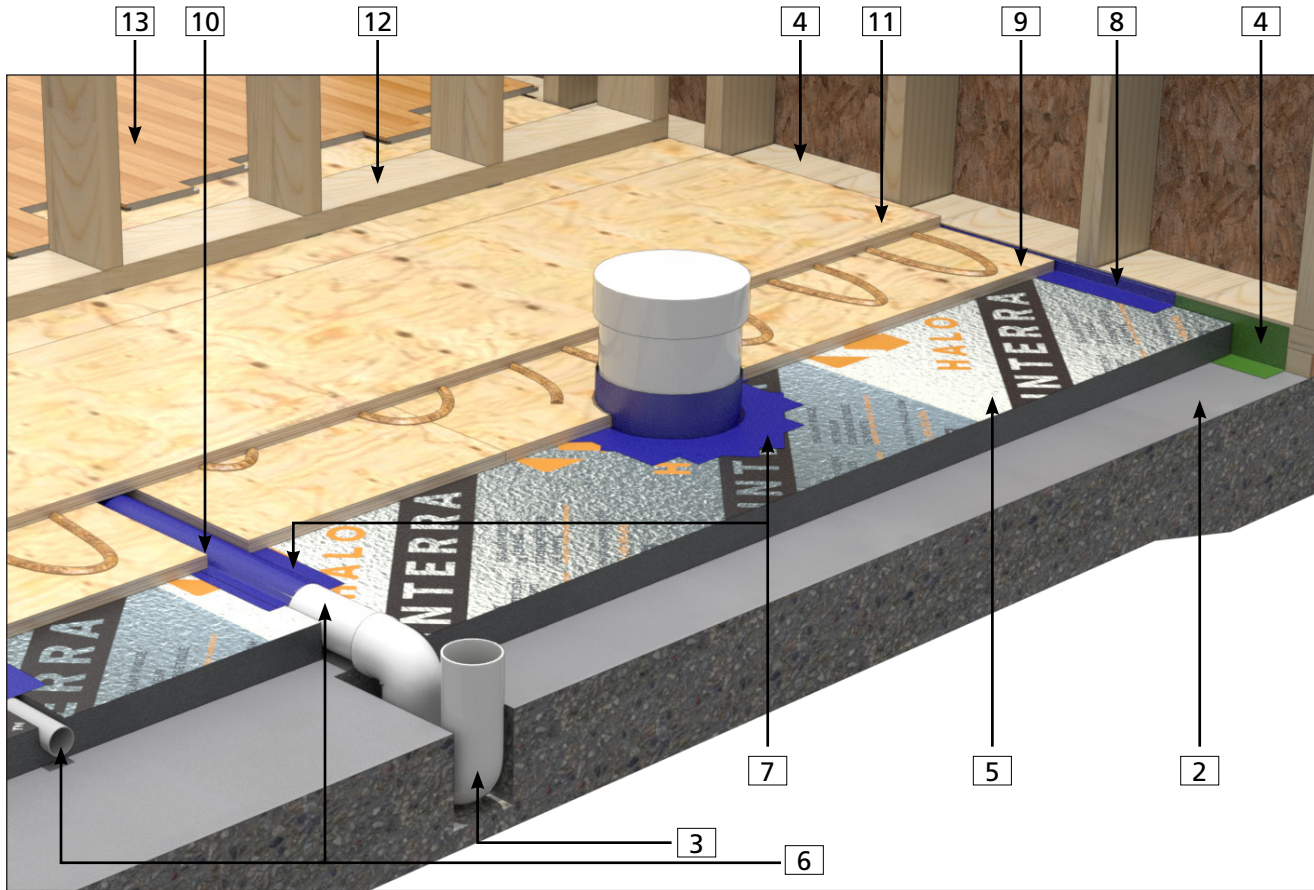
For installation refer to the following figure, and for detailed installation instructions refer to the Halo Installation Guides.

1. Based on a compressive strain of 2% over a period of 50 years.



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- 1 All load bearing walls must sit directly on concrete. For new builds consider bearing walls at exterior only to minimize thermal bridging.
- 2 Ensure slab surface is clean, free of debris and protrusions that could puncture the Interra laminate.
- 3 Cut slab section if necessary to accommodate services.
- 4 Vapor barrier tape applied along slab perimeter to wall.
- 5 Lay Interra over slab. Offset and tape seal all joints. Gluing Interra to the slab is not necessary.
- 6 Interra can be cut to accommodate electrical conduits and pipes.
- 7 Tape seal over conduits/pipes and penetrations.
- 8 Tape perimeter of Interra to wall to maintain air and vapor barrier.
- 9 Install first layer of plywood offsetting the joints. Gluing to Interra is not required but joints should be as tight as possible. Use a minimum 3/4" thick ply. Tongue and groove plywood works best. Provide a space between the plywood layers and walls about 1/4" to 1/2" to allow for potential movement.
- 10 Cut out sections of plywood if pipes or conduits protrude into the plywood layers.
- 11 Glue second layer of plywood to first layer with polyurethane glue. Then screw both layers making sure screw length will not puncture Interra. The second layer should be placed in opposite orientation to the first layers to ensure all joints are offset between first and second layers.
- 12 Frame interior non-load bearing walls on top of the plywood.
- 13 Finished floor on top of plywood. An uncoupling membrane is required for tile applications.

