

Product Information Bulletin 210

GeoDrain® Foundation Insulation Board

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GeoDrain[®] foundation insulation can be used as a component in the construction of all types of building foundation systems. It provides the following key features in a properly designed foundation:

1. As a rigid insulation, it provides a monolithic insulation layer eliminating thermal shorts and reducing thermal stresses that can cause cracking of concrete walls.
2. The smooth board surface in contact with the soil provides a capillary-breaking layer, which directs water to the drainage tile.
3. The grooved surface of the board in contact with the foundation wall provides an additional drainage plane to relieve any hydrostatic pressure that may develop adjacent to the foundation wall and direct water to the drainage tile.
4. It protects dampproofing or waterproofing from damage during backfill operation.

GeoDrain foundation insulation has been tested by a third party testing laboratory to demonstrate it will provide drainage equivalent to that required by National Building Code of Canada 2005 and 2010, Article 9.14.2.1.

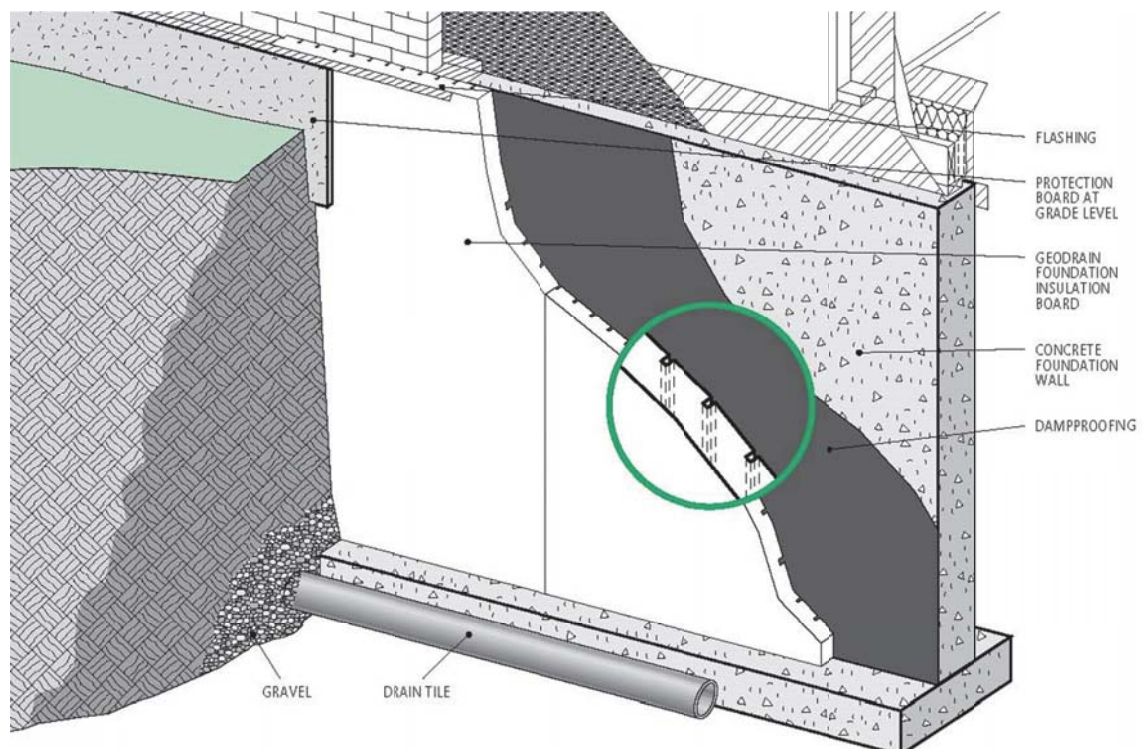


Figure 1 - GeoDrain Foundation Insulation Typical Installation Detail

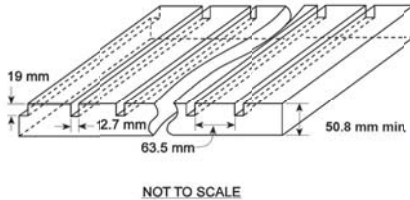


Figure 2 - Drainage Groove Pattern

GeoDrain foundation insulation board tested with the typical drainage groove pattern shown in Figure 2 was classified as a Class B drainage product; i.e. one that is designed to be used as a protective layer or a capillary breaking layer against the foundation wall to protect the wall against transient or intermittent water which may come in contact with the wall surface. GeoDrain foundation insulation can be fabricated from any PlastiSpan insulation type.

Recommended Installation Requirements

GeoDrain foundation insulation board installs quickly and easily. No special skills, tools or equipment are required. The installation instructions below provide basic guidance for installation on foundation walls.

1. GeoDrain foundation insulation applied over dampproofing or waterproofing required by the applicable building code protects it from damage during backfill operation. ***It is important to note that if emulsified asphalt is used for dampproofing or waterproofing it must be allowed to fully cure before application of GeoDrain foundation insulation.***
2. GeoDrain foundation insulation can be adhered to the foundation wall over the cured dampproofing or waterproofing using an insulation adhesive approved for use with EPS. Equally spaced walnut-sized spots of the adhesive should be applied to the insulation board.
3. Starting from a corner location, install GeoDrain foundation insulation with the drainage grooves vertically oriented in contact with the foundation wall.
4. The top edge of the GeoDrain foundation insulation should be placed flush with the underside of the sill plate and the bottom edge within approximately 13 mm (1/2-inch) of the top of the footing to facilitate drainage of water to the drainage tile.
5. If required, dimensions of GeoDrain foundation insulation can be adjusted easily using a fine-toothed handsaw.
6. GeoDrain foundation insulation is then adhered to the foundation wall by pressing firmly into place ensuring that the vertical joints between the insulation boards are butted tightly together.
7. Place 100 mm (4") of coarse gravel against the bottom edge of the GeoDrain insulation over the drainage tile to tie in the drainage system at the base of the foundation wall.
8. The exterior face of GeoDrain foundation insulation must be protected to 300 mm (12") below expected ground level. One method of achieving this is to attach stucco mesh through the GeoDrain foundation insulation to the concrete wall using Gripcon fasteners with galvanized steel washers. Use galvanized diamond mesh reinforcing at corners or at openings. Apply 13 mm (1/2-inch) parging (2 coats) to the stucco mesh.
9. Incorporate appropriate flashing details at the top edge of the GeoDrain insulation with flashing installed over the top of GeoDrain foundation insulation and finish so that the joint with wall finish is watertight.
10. Backfill the foundation wall with appropriate backfill material using normal equipment and operations. Complete finish grading so that soil surface is sloped away from the foundation.