

# Plasti-Fab Design Manual

# GeoDrain Foundation Insulation Board





# PlastiSpan™ Insulation

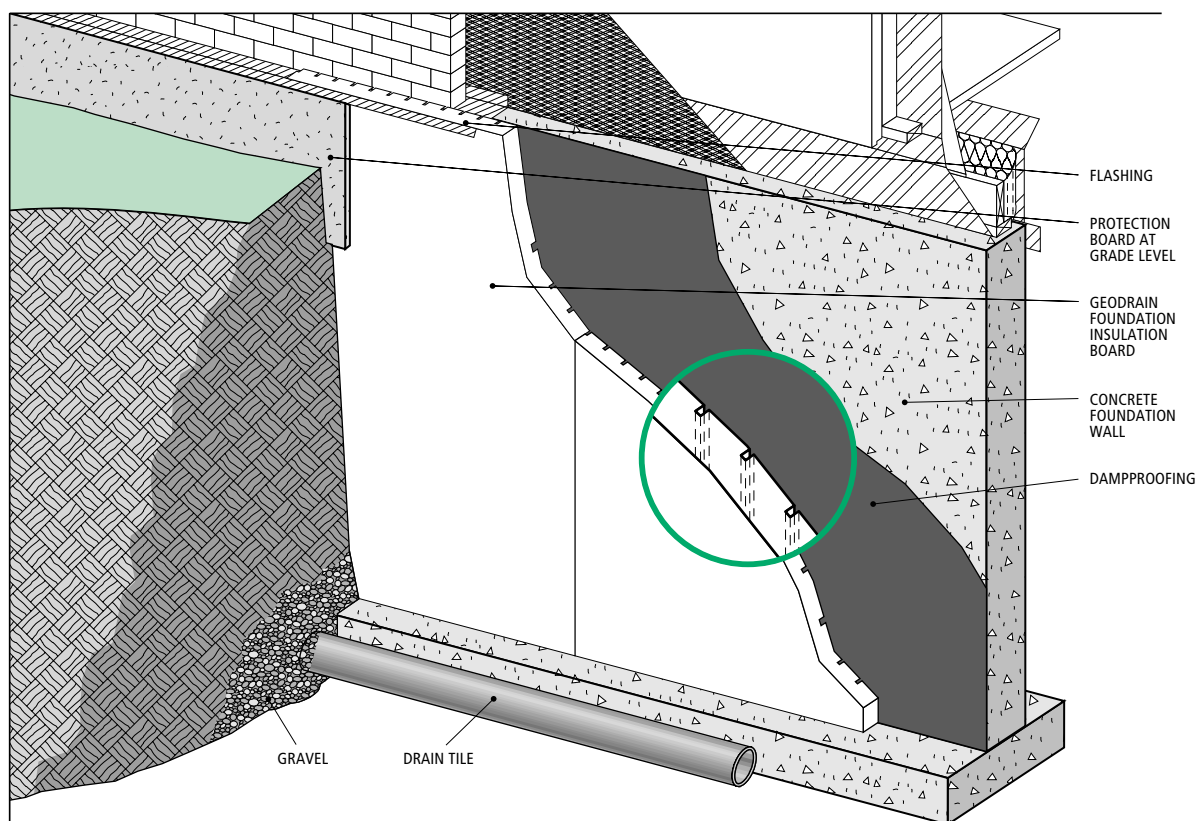
## GeoDrain Foundation Insulation Board

Plasti-Fab GeoDrain foundation insulation board is intended for use as a component in all types of foundation building 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 board complies with CCMC Technical Guide for Foundation Drainage Systems which provides a basis for evaluation of drainage products to ensure they meet the intent of the Ontario Building Code. GeoDrain foundation insulation board complies with performance requirements outlined in the Guide for a Class B, Type 2 drainage product as detailed in CCMC Evaluation Report No. 12695-R.

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



## Installation Requirements

1. Standard board sizes for GeoDrain foundation insulation board are 610 mm (2 feet) wide by 2135 mm (7 feet) or 2440 mm (8 feet) in length for easy handling and installation.
2. Prior to installation of GeoDrain foundation insulation board, dampproofing as per the requirements of the Building Code shall be applied and allowed to cure from the top of the footing to above the finished grade.  

NOTE: Boards are placed with the drainage grooves vertically oriented and the grooved surface in contact with the foundation wall.
3. Starting from a corner location, install GeoDrain foundation insulation board from the top of the foundation wall to the depth required using 610 mm (2 feet) wide sheets. The top edge of the GeoDrain foundation insulation board should be placed flush with the underside of the sill plate. Appropriate flashing details at the top edge of the GeoDrain foundation insulation board must be provided.
4. A gap of 6 to 13 mm (1/4 to 1/2 inch) must be maintained between the bottom edge of the GeoDrain foundation insulation board and the top of the footing in order to facilitate drainage of water to the drainage tile. If required, dimensions of the GeoDrain foundation insulation board can be adjusted easily using a fine-toothed handsaw. Cut off boards if they extend above the top of the foundation wall.
5. GeoDrain foundation insulation board can be adhered to the foundation wall over the cured dampproofing using six walnut-sized spots of an insulation adhesive, approved for use with EPS. Should be equally spaced on the boards.
6. GeoDrain foundation insulation board is then pressed firmly into place over the cured dampproofing membrane ensuring that the vertical joints between the boards are butted tightly together.
7. Place 100 mm (4") of coarse gravel against the bottom edge of the insulation and over the drainage gravel to tie drainage system at the base of the foundation wall to the insulation surface.
8. Backfill the foundation wall with on-site excavated material using normal equipment and operations.
9. Attach stucco mesh through to the concrete using Gripcon fasteners with galvanized steel washers. Use galvanized diamond mesh reinforcing at corners or at openings. Extend stucco mesh 300 mm (12") below expected ground level.
10. Apply 13 mm (1/2 inch) parging (2 coats) to the stucco mesh or complete other finishes. Install flashing over top to the insulation and finish so joint with wall finish is watertight.
11. Complete finish grading so that soil is sloped away from the foundation.