FOAMULAR®
Energy-Saving, Moisture-Resistant XPS Insulation

AUSTECH
external building products

Masonry/Brick Cavity Wall Insulation

Brick, masonry and concrete walls all benefit from the addition of Foamular extruded polystyrene insulation through improved thermal performance. These types of construction have low thermal values. Masonry and brick are very good at storing heat but are also very good at transferring heat. Often bricks and masonry will heat up during the day, store that heat and then radiate it back into the house at night. Properly installed insulation can limit this transfer and dramatically improve energy efficiency.

Foamular Extruded Polystyrene is closed celled insulation, so it is not affected by moisture. It can reduce the transfer of moisture and is its physical properties are not reduced in the presence of moisture. As a result of its reduced moisture absorption, it is guaranteed to maintain 90% of its thermal properties for 20 years.

A double brick cavity wall has an R-value of only R0.69. In comparison, just 30mm of Foamular Extruded Polystyrene has an R-value of R1.07. Combining the two would provide an R-Value of 1.76 and vastly improve the walls thermal performance. To meet BCA and BASIX requirements, Foamular XPS in various thicknesses can be easily fitted to meet thermal requirements. Highly energy-efficient buildings not only save money but are also worth more money.

Application: Masonry/Brick Cavity Wall Insulation - Installation Guide

The walls are constructed leading with either inner or outer leaf with the insulation fixed to the cavity face of the leading leaf. It is recommended that the inner leaf be constructed ahead of the outer leaf, in that boards are fastened to the cavity face of the inner leaf. This gives a slightly enhanced thermal performance.

Procedure

1.1 A section of the leading leaf is built with the first row of wall ties, at approximately 600mm horizontal spacing, where the insulation is to begin. The first run of boards may commence below the damp-proof course level to provide some edge insulation for the floor (see figure 1) Figure

1 1.2 The Leading leaf is built up to a height of 450mm. Excess mortar is cleaned from the cavity face of the leading leaf, and the boards are placed on the wall ties behind retaining clips, to form a closely butt-jointed run. The second row of the wall ties is fitted to retain the tops of the board. It is essential that all wall ties slope downwards towards the outer leaf (see Figure 2). Horizontal spacing should be determined as follows

A) Where insulation retaining ties/clips are sufficient for structural purposes, horizontal spacing should be 450mm or 600mm, depending on the thickness of the inner leaf.

B) Where additional vertical twist ties are required, insulation retaining ties/clips should be spaced at 600mm horizontal centre to give adequate retention of the slabs while additional ties can be used as required.

1.3 The outer leaf is built up to the level of the top of the boards.

Mortar Droppings

1.4 After each section of leading leaf is built, excess mortar should be removed from the cavity face and mortar droppings cleaned from exposed edges of the installed board, before installation of the next run of boards. Use of a cavity board is recommended to protect board edges and make cleaning easier. Also a cavity batten will protect the installed boards and help to keep the cavity clean as the following leaf is built (figure 3)

Cut Pieces

1.5 Boards can be cut using a sharp knife or fine tooth saw to fit around windows, doors, airbricks etc. It is essential that cut pieces of boards completely fill the spaces for which they are intended and that no gaps are left in insulation.

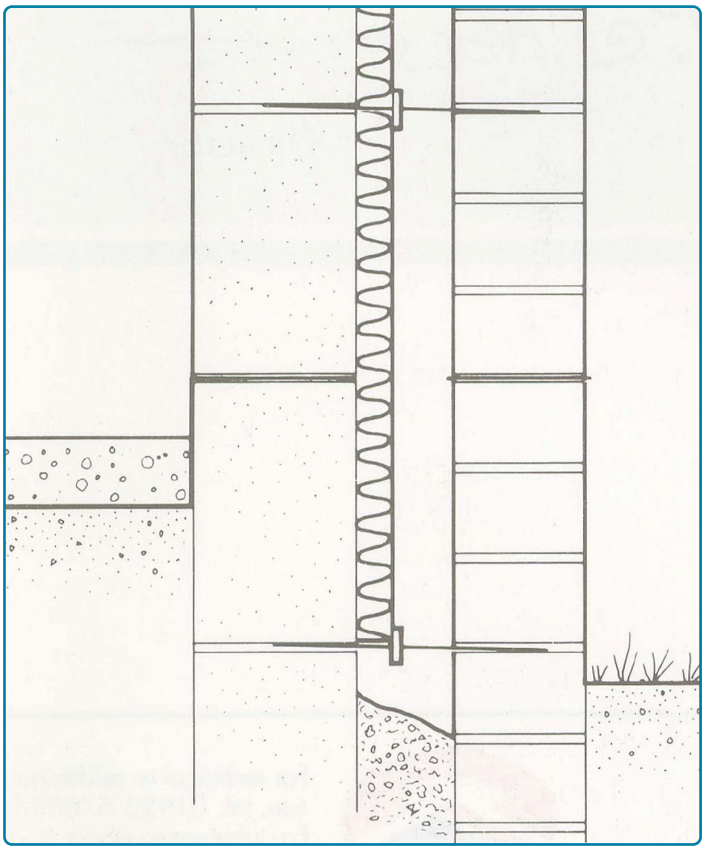

Figure 2

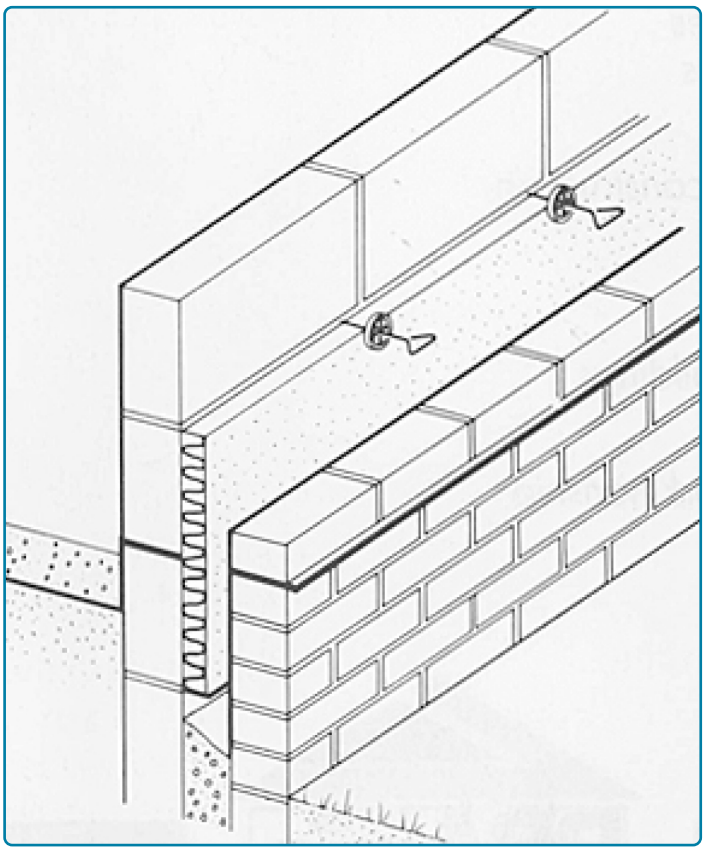

Figure 1

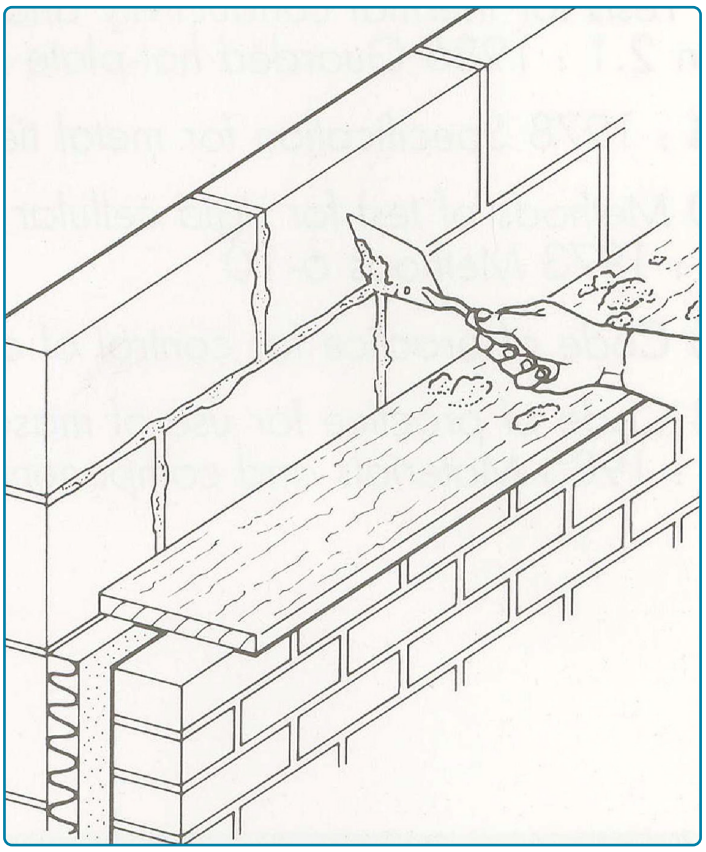

Figure 3