

Below Grade Wall Assembly

Assembly # MB-08

Description: ICF wall consisting of 203.2mm (8") concrete core with 63.5mm (2.5") expanded polystyrene (Type 2) insulation each side. Interior finished with 12.7mm (1/2") gypsum board.

Layer	Assembly Components (layer listed from exterior to interior)	RSI Value	R Value
1	63.5mm (2.5") Expanded polystyrene (Type 2)	1.778	10.09595
2	203.2mm (8") Concrete core	0.08128	0.461529
3	63.5mm (2.5") Expanded polystyrene (Type 2)	1.778	10.09595
4	12.7mm (1/2") gypsum board	0.07747	0.439895
5	Inside Air Film	0.12	0.681392
Total		3.83	21.8

Note:

The thermal resistance values of each continuous layer incorporated in the assembly are from A-9.36.2.4.(1)D.

Parallel Heat Flow Calculation:

$$RSI_{\text{parallel}} = \frac{100}{\frac{\% \text{ area of framing}}{RSI_f} + \frac{\% \text{ area of cavity}}{RSI_c}}$$

% Area of Framing	N/A Value of the area of framing member obtained from Table A-9.36.2.4.(1)A
% Area of Cavity	N/A Values of the area of cavity obtained from Table A-9.36.2.4.(1)A
RSI Framing	N/A
RSI Cavity	N/A
RSI Parallel *	N/A

Note: The above values and references are from the 2010 National Building Code of Canada. This document is intended to be used for reference purposes. The assembly components shall be detailed in a cross section on the submitted plans.

RSI_{eff} = 3.83 (m²·K)/W | **R_{eff} = 21.8 (h·ft²·°F)/Btu**

eff = effective thermal resistance