MONCTON | Building Inspection / Inspection des bâtiments

Ceiling Below Attic Assembly

Assembly # MA-04

Description: Flat ceiling with 38x140 (2x6 bottom cord) raised heel trusses spaced at 610mm (24") o/c with 368mm (14.5") blown cellulose. Ceiling finished with 12.7mm (1/2") gypsum board.

Layer	Assembly Components (layer listed from exterior to interior)	RSI Value	R Value
1	Outside Air Film	0.03	0.170348
2	38x140(2x6) raised heel trusses @ 610mm (24") o/c with 368mm(14.5") blown cellulose*	8.7813	49.86253
3	19mm (3/4") Strapping	0.15	0.851739
4	6 mil. Polyethylene	N/A	N/A
5	12.7mm (1/2") gypsum board	0.07747	0.439895
6	Inside Air Film	0.11	0.624609
	Total	9.15	51.9

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:

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

% Area of Framing	7%	Value of the area of framing member obtained from Table A-9.36.2.4.(1)A
% Area of Cavity	93%	Values of the area of cavity obtained from Table A-9.36.2.4.(1)A
RSI Framing	1.19	
RSI Cavity	3.5	
RSI Parrallel *	8.7813	

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} = 9.15 $(m^2 \cdot K)/W$	**R_{eff} = 51.9 $(h \cdot ft^2 \cdot {}^oF)/Btu$**

eff = effective thermal resistance