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Robert Sculthorpe
Director Technical Services Fox Blocks ICF
Airlite Plastics Co.
6110 Abbott Drive
Omaha, NE, USA 68110-2805

Re: 4", 6", 8", 10" & 12" Fox 1440 ICF wall assembly Rvalues

Dear Mr. Sculthorpe,

Further to your request please find attached Tables 1 through 5 detailing the calculation of the effective wall assembly Rvalue using the 4", 6", 8", 10" and 12" Fox 1440 ICF Wall System with typical finishes. The calculations are in accordance with the accepted material properties and methods provided in the 1997 ASHRAE Handbook along with the EPS material properties specified in the Intertek Testing Services NA Ltd. Report No. 484-1442 test report provided.

The calculated wall assembly Rvalues vary from 22.14 to 22.62 F-hr-ft²/BTU depending on the concrete thickness and assume that the exterior is finished with siding and ½" gypsum board is applied to the interior.

I trust this satisfies your requirements. If you have any questions please feel free to contact me.

Yours Truly

R. Wright P. Eng.



**Table 1
4" Fox 1440 ICF Wall Assembly Rvalue**

Wall Assembly Component	Thickness (in.)	Thermal Resistance per Inch (F-hr-ft ² /BTU-in)	Rvalue (F-hr-ft ² /BTU)
Outside Air Film	-	-	.17
Siding	-	-	.6
Type 2 EPS	2.5	4	10
Concrete	4.0	.06	.24
Type 2 EPS	2.5	4	10
½" Gypsum Board	-	-	.45
Inside Air Film	-	-	.68
Assembly Rvalue			22.14

**Table 2
6" Fox 1440 ICF Wall Assembly Rvalue**

Wall Assembly Component	Thickness (in.)	Thermal Resistance per Inch (F-hr-ft ² /BTU-in)	Rvalue (F-hr-ft ² /BTU)
Outside Air Film	-	-	.17
Siding	-	-	.6
Type 2 EPS	2.5	4	10
Concrete	6.0	.06	.36
Type 2 EPS	2.5	4	10
½" Gypsum Board	-	-	.45
Inside Air Film	-	-	.68
Assembly Rvalue			22.3



Notes: 1. Concrete/EPS dimensions and EPS Rvalue based on values provided in Intertek Testing Services NA Ltd. Report No. 484-1442

2. Balance of thermal properties per 1997 ASHRAE Fundamentals Handbook.

Table 3
8" Fox 1440 ICF Wall Assembly Rvalue

Wall Assembly Component	Thickness (in.)	Thermal Resistance per Inch (F-hr-ft ² /BTU-in)	Rvalue (F-hr-ft ² /BTU)
Outside Air Film	-	-	.17
Siding	-	-	.6
Type 2 EPS	2.5	4	10
Concrete	8.0	.06	.48
Type 2 EPS	2.5	4	10
½" Gypsum Board	-	-	.45
Inside Air Film	-	-	.68
Assembly Rvalue			22.38

Table 4
10" Fox 1440 ICF Wall Assembly Rvalue

Wall Assembly Component	Thickness (in.)	Thermal Resistance per Inch (F-hr-ft ² /BTU-in)	Rvalue (F-hr-ft ² /BTU)
Outside Air Film	-	-	.17
Siding	-	-	.6
Type 2 EPS	2.5	4	10
Concrete	10.0	.06	.6
Type 2 EPS	2.5	4	10
½" Gypsum Board	-	-	.45
Inside Air Film	-	-	.68
Assembly Rvalue			22.50



- Notes:**
1. Concrete/EPS dimensions and EPS Rvalue based on values provided in Intertek Testing Services NA Ltd. Report No. 484-1442
 2. Balance of thermal properties per 1997 ASHRAE Fundamentals Handbook.

Table 5
12" Fox 1440 ICF Wall Assembly Rvalue

Wall Assembly Component	Thickness (in.)	Thermal Resistance per Inch (F-hr-ft ² /BTU-in)	Rvalue (F-hr-ft ² /BTU)
Outside Air Film	-	-	.17
Siding	-	-	.6
Type 2 EPS	2.5	4	10
Concrete	12.0	.06	.72
Type 2 EPS	2.5	4	10
½" Gypsum Board	-	-	.45
Inside Air Film	-	-	.68
Assembly Rvalue			22.62

- Notes: 1. Concrete/EPS dimensions and EPS Rvalue based on values provided in Intertek Testing Services NA Ltd. Report No. 484-1442
2. Balance of thermal properties per 1997 ASHRAE Fundamentals Handbook.

