

**R-4.0/inch EPS Insulation.**

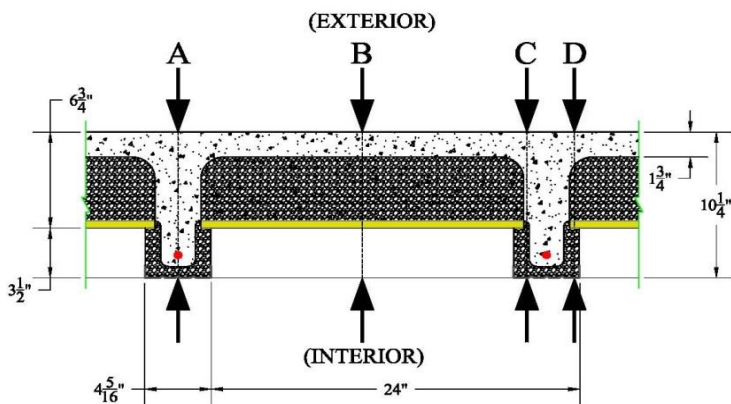


**R -VALUE FOR Xi PLUS SUPERIOR WALLS PANELS**

**(The R-Value Computation Method)**

This calculation for the R-value for the Superior Wall system is calculated using an area weighted R-Value computation method (2009 IRC Section N1102.1.1 and IECC 402.1.2). Results are based on percent of actual wall area for a 24 inch section of the wall area (See section detail below). This R-value computation method uses insulation materials only and does not include any R-value for other building materials or air films.

	Stud Center R-value:	Cavity Space R-value:	Stud Side R-value:	Stud Side R-value:
	(A)	(B)	(C)	(D)
Insulation: 4-1/2" EPS	0	18	0	0
Insulation: 3.9" of EPS	0	0	15.6	15.6
Insulation: 1/2 Thermax®	0	3.3	0	3.3
Insulation: 3/4" EPS	3	0	0	0
Insulation: 3 1/2" of EPS	0	0	0	14
	<b>3</b>	<b>21.3</b>	<b>15.6</b>	<b>32.9</b>



**Object Dimension as a Percentage of 24" Section**

A. Stud Center width ratio	<b>0.094</b>
B. Cavity width ratio	<b>0.823</b>
C. Stud side insulation ratio	<b>0.034</b>
D. Stud side insulation ratio	<b>0.050</b>

**R-Value of Object as it Contributes to 24" Section**

Stud (A)	=	3	x	0.094	=	<b>0.28</b>
Cavity (B)	=	21.3	x	0.823	=	<b>17.50</b>
Stud Sides (C)	=	15.6	x	0.034	=	<b>0.53</b>
Stud Sides (D)	=	32.9	x	0.050	=	<b>1.65</b>

All EPS insulation used in this example is assumed to be 1.5 lb. density rated R-4 per inch.

**R-VALUE (Total System) 20.0**

**U-VALUE (Total System) 0.05**