



## Wall and Roof R-Values

Wall Panel 4 3/8" SIP w/2x4 Panel						Roof Panel 8 1/8" SIP w/2x8 Panel					
Through Insulated Area	R-value @ 75°F	R-value @ 25°F	Through Unbroken Studs	R-value @ 75°F	R-value @ 25°F	Through Insulated Area	R-value @ 75°F	R-value @ 25°F	Through Unbroken Studs	R-value @ 75°F	R-value @ 25°F
Outside Air Film	0.17	0.17	Outside Air Film	0.17	0.17	Outside Air Film	0.17	0.17	Outside Air Film	0.17	0.17
Lap Siding	0.81	0.81	Lap Siding	0.81	0.81	Asphalt Shingles	0.44	0.44	Asphalt Shingles	0.44	0.44
7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55	Roofing Felt	0.06	0.06	Roofing Felt	0.06	0.06
3 1/2" EPS	13.48	15.23	2x4 Stud	4.38	4.38	7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55
7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55	7 1/4" EPS	27.91	31.54	2x8	9.10	9.10
Gypsum board	0.45	0.45	Gypsum board	0.45	0.45	7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55
Inside Air Film	0.68	0.68	Inside Air Film	0.68	0.68	Gypsum board	0.45	0.45	Gypsum board	0.45	0.45
<b>Total R Values</b>	<b>16.69</b>	<b>18.44</b>		<b>7.59</b>	<b>7.59</b>	Inside Air Film	0.61	0.61	Inside Air Film	0.61	0.61
						<b>Total R Values</b>	<b>30.74</b>	<b>34.37</b>		<b>11.93</b>	<b>11.93</b>

  

Wall Panel 6 3/8" SIP w/Thrml. Post						Roof Panel 10 3/8" SIP w/I-Joist Panel					
Through Insulated Area	R-value @ 75°F	R-value @ 25°F	Through Insulated Studs	R-value @ 75°F	R-value @ 25°F	Through Insulated Area	R-value @ 75°F	R-value @ 25°F	Through 3/8" I-joist Web	R-value @ 75°F	R-value @ 25°F
Outside Air Film	0.17	0.17	Outside Air Film	0.17	0.17	Outside Air Film	0.17	0.17	Outside Air Film	0.17	0.17
Lap Siding	0.81	0.81	Lap Siding	0.81	0.81	Asphalt Shingles	0.44	0.44	Asphalt Shingles	0.44	0.44
7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55	Roofing Felt	0.06	0.06	Roofing Felt	0.06	0.06
			2x4 Stud	1.88	1.88	7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55
5 1/2" EPS	21.18	23.93	2 1/2" 2# EPS	10.88	12.50	9 1/2" EPS	36.58	41.33	3/8" I-joist web	9.5	9.5
			2x4 Stud	1.88	1.88	7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55
7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55	Gypsum board	0.45	0.45	Gypsum board	0.45	0.45
Gypsum board	0.45	0.45	Gypsum board	0.45	0.45	Inside Air Film	0.61	0.61	Inside Air Film	0.61	0.61
Inside Air Film	0.68	0.68	Inside Air Film	0.68	0.68	<b>Total R Values</b>	<b>39.41</b>	<b>44.16</b>		<b>12.33</b>	<b>12.33</b>
<b>Total R Values</b>	<b>24.39</b>	<b>27.14</b>		<b>17.85</b>	<b>19.47</b>						

  

Wall Panel 8 1/8" SIP w/Thrml. Post						Roof Panel 12 3/4" SIP w/I-Joist Panel					
Through Insulated Area	R-value @ 75°F	R-value @ 25°F	Through Insulated Studs	R-value @ 75°F	R-value @ 25°F	Through Insulated Area	R-value @ 75°F	R-value @ 25°F	Through 3/8" I-joist Web	R-value @ 75°F	R-value @ 25°F
Outside Air Film	0.17	0.17	Outside Air Film	0.17	0.17	Outside Air Film	0.17	0.17	Outside Air Film	0.17	0.17
Lap Siding	0.81	0.81	Lap Siding	0.81	0.81	Asphalt Shingles	0.44	0.44	Asphalt Shingles	0.44	0.44
7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55	Roofing Felt	0.06	0.06	Roofing Felt	0.06	0.06
			2x4 Stud	1.88	1.88	7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55
7 1/4" EPS	27.91	31.54	4 1/4" 2# EPS	18.49	21.25	11 7/8" EPS	45.72	51.66	3/8" I-joist web	12	12
			2x4 Stud	1.88	1.88	7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55
7/16" OSB	0.55	0.55	7/16" OSB	0.55	0.55	Gypsum board	0.45	0.45	Gypsum board	0.45	0.45
Gypsum board	0.45	0.45	Gypsum board	0.45	0.45	Inside Air Film	0.61	0.61	Inside Air Film	0.61	0.61
Inside Air Film	0.68	0.68	Inside Air Film	0.68	0.68	<b>Total R Values</b>	<b>48.55</b>	<b>54.49</b>		<b>14.83</b>	<b>14.83</b>
<b>Total R Values</b>	<b>31.12</b>	<b>34.75</b>		<b>25.46</b>	<b>28.22</b>						

\*Federal Trade Commission Ruling: Use the 75°F R-value when calculating R-values for residential construction.

The R-value of EPS increases as the temperature decreases. (Examples above)