

CertainTeed InsulSafe® SP

Fiber Glass Blowing Insulation Fact Sheet for Minnesota

COVERAGE CHART—OPEN CAVITY (ATTIC) APPLICATION BLOW

The following thermal performances are achieved at the thicknesses, weights and coverages specified when insulation is installed with pneumatic equipment in a horizontal open blow application.

R-VALUE	MINIMUM BAGS PER 1000 SQ. FT.	MAXIMUM NET SQ. FT. PER BAG COVERAGE	MINIMUM WEIGHT LBS. PER SQ. FT.	MINIMUM INSTALLED THICKNESS	MINIMUM SETTLED THICKNESS
To obtain a Thermal Resistance (R) of:	Bags per 1000 sq. ft. of net area:	Contents of bag will not cover more than: (sq. ft.)	Weight per sq. ft. of installed insulation will not be less than: (lbs.)	Installed insulation will not be less than: (in.)	Minimum settled thickness will not be less than: (in.)
60	28.9	34.5	0.897	21.75	21.75
49	23.5	42.6	0.727	18.25	18.25
44	20.8	48.0	0.646	16.50	16.50
38	17.9	55.7	0.556	14.50	14.50
30	13.8	72.5	0.427	11.50	11.50
26	11.8	84.8	0.366	10.00	10.00
22	9.9	101.4	0.306	8.50	8.50
19	8.6	116.2	0.267	7.50	7.50
13	5.9	170.4	0.182	5.25	5.25
11	5.0	200.5	0.155	4.50	4.50

R-values are determined in accordance with ASTM C687 and C518. Complies with ASTM C764 as Type 1 pneumatic application.

COVERAGE CHART—CLOSED CAVITY RETROFIT (WALLS, FLOORS, CEILINGS) APPLICATION

The following thermal performances are achieved at the thicknesses, weights and coverages specified when insulation is installed with pneumatic equipment in sidewalls. Based on a design density of 1.6 pcf/25.6 Kg/m³.

CAVITY FRAMING INSTALLED THICKNESS	INSTALLED R-VALUE	INSTALLED DESIGN DENSITY	MAXIMUM COVERAGE PER PACKAGE	MINIMUM PACKAGES PER AREA
in.	(hr·ft ² ·°f)/btu	lbs./ft ³	ft ²	#/1,000 ft ²
3-1/2" (2x4)	14	1.2	88.6	11.3
3-1/2" (2x4)	15	1.6	66.4	15.1
5-1/2" (2x6)	22	1.2	56.4	17.7
5-1/2" (2x6)	24	1.8	37.6	26.6
7-1/4" (2x8)	29	1.2	42.8	23.4
7-1/4" (2x8)	31	1.6	32.1	31.2

READ THIS BEFORE YOU BUY

What you should know about R-values:

The chart shows the R-value of this insulation. R means resistance to heat flow. The higher the R-value, the greater the insulating power. Compare insulation R-values before you buy.

There are other factors to consider. The amount of insulation you need depends mainly on the climate you live in. Also, your fuel savings from insulation will depend upon the climate, the type and size of your house, the amount of insulation already in your house, and your fuel use patterns and family size. If you buy too much insulation, it will cost you more than what you'll save on fuel.

To get the marked R-value, it is essential that this insulation be installed properly.

It has been shown that light density loose fill insulations can sustain R-value reductions at cold winter temperatures. Actually, any fiber/air insulation can sustain R-value reduction at cold temperatures, but it has been demonstrated that batt products don't experience this phenomenon at temperatures that occur naturally in attics.

Cold temperature R-value reduction is caused by convection—air movement resulting from light density warm air rising in denser cold air. If a large enough temperature gradient exists across an attic insulation, convection can occur. The temperature at which convection starts in an attic insulation depends on the insulation's thickness, density and fiber characteristics as well as on framing size and spacing.

Stated R-values are measured in accordance with FTC regulations. Depending on installed density, thickness, attic framing and presence of batt insulation, R-values may be reduced at cold temperatures due to convective air movement in the insulation. At winter design conditions, the cold temperature R-value loss of InsulSafe® SP Insulation in Minneapolis, MN, for example, is 2% at R-49 (CertainTeed's recommended R-value for Minnesota) and 0% at R-38. As another example, in Bemidji, MN, the R-value loss of InsulSafe SP at winter design conditions is 18% at R-49 and 16% at R-38.

"Winter design conditions" refers to the temperature that has been equaled or exceeded 99% of the winter; by definition, temperatures colder than design conditions occur only 1% of the time in winter. Thus, the average winter temperature is much warmer than the winter design temperature. For example, Minneapolis, with a winter design temperatures of -16°F, has an average winter temperature of 16°F.

To maintain label R-values at winter design conditions in very cold regions, extra insulation can be installed in accordance with the chart below. At temperatures of -15°F to +75°F, label R-values or higher are obtained by installing InsulSafe SP in accordance with the Thermal Performance-Horizontal Open Blow Chart.

Winter Design Temperature Degrees F	R-30		R-38		R-44		R-49		R-60	
	Extra Depth: (in.)	Extra Bags Per 1000 Sq. Ft.	Extra Depth: (in.)	Extra Bags Per 1000 Sq. Ft.	Extra Depth: (in.)	Extra Bags Per 1000 Sq. Ft.	Extra Depth: (in.)	Extra Bags Per 1000 Sq. Ft.	Extra Depth: (in.)	Extra Bags Per 1000 Sq. Ft.
-16 to -19	0	0.0	0	0.0	0	0.0	1/2	0.9	1	1.9
-20 to -23	0	0.0	1/4	0.6	1	1.9	1-1/2	2.7	2	3.7
-24 to -28	0	0.0	1-3/4	2.7	2-1/4	4.0	2-3/4	4.9	3-1/4	5.8
-29 and colder	3/4"	1.0	2-1/2	3.9	3-1/4	5.3	3-1/2	6.2	4	7.1



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www.certainteed.com/insulation

CertainTeed Corporation
20 Moores Road
Malvern, PA 19355

Professional: 800-233-8990
Consumer: 800-782-8777

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