



# ATTIC GUARD<sup>®</sup> PLUS

PREMIUM LOOSE-FILL FIBERGLASS INSULATION

- Class A Fire Rating
- Pure Glass Fibers
- Non-corrosive
- Pest Resistant
- No Formaldehyde Added
- No Bonding Agents

## ATTIC GUARD<sup>®</sup> PLUS COVERAGE INFORMATION (OPEN ATTIC)

R-VALUE	BAGS PER 1000 FT <sup>2</sup>	MAX. COV. PER BAG	MIN. DENSITY LBS. PER FT <sup>2</sup>	DENSITY	THICKNESS INITIAL INSTALLED/ MINIMUM SETTLED
R-60	34.9	29 SF	1.141	0.660	20.75"
R-49	26.9	37 SF	0.887	0.617	17.25"
R-44	23.8	42 SF	0.787	0.609	15.50"
R-38	20.2	49 SF	0.668	0.594	13.50"
R-30	15.5	65 SF	0.510	0.563	10.875"
R-26	13.3	75 SF	0.438	0.546	9.625"
R-22	10.9	92 SF	0.360	0.516	8.375"
R-19	9.2	109 SF	0.303	0.493	7.375"
R-13	6.3	159 SF	0.207	0.497	5.00"
R-11	5.3	190 SF	0.173	0.489	4.25"

**Pneumatic Application:**

This product is designed to be installed by professional insulation contractors using appropriate machines. The machine settings supplied by the manufacturer for this equipment should be used carefully in order to get optimum results. The equipment must be designed for fiberglass and has to have an effective shredding section, a controlled feed section and sufficient air volume to achieve the desired result.

Nominal bag weight 33 lbs.

## ATTIC GUARD PLUS CLOSED CAVITY (PERFECT FILL<sup>®</sup>)

R-VALUE	THICKNESS	FRAMING	BAGS PER 1000 FT <sup>2</sup>	MAX. COV. FT <sup>2</sup> PER BAG	MIN. WT. LBS. PER FT <sup>2</sup>	MIN. WT. PER FT <sup>3</sup>
R-15	3.50	2x4	19	51	0.64	2.2
R-23	5.50	2x6	31	33	1.01	2.2
R-31	7.25	2x8	40	25	1.33	2.2
R-39	9.25	2x10	51	19	1.70	2.2
R-50	11.875	Eng. I-Joist	66	15	2.18	2.2
R-60	14.00	Eng. I-Joist	78	13	2.57	2.2
R-68	16.00	Eng. I-Joist	89	11	2.93	2.2

Closed cavity applications can be difficult to judge material usage during insulation since fiberglass is compression filled in the cavity. Make sure you are monitoring material usage as the job progresses, so that the proper number of bags are being installed. For pneumatic application only. Not for exposed applications. Insulation should not be installed over eave vents. Thermal resistance values are determined in accordance with ASTM C 687 and ASTM C 518. This product meets or exceeds the requirements of ASTM C 764 Type 1.

# MINNESOTA LOOSE-FILL INSULATION REQUIREMENTS

## Winter Design Requirements

It is recommended that Attic Guard® PLUS be installed to the specific weights and coverages listed in the Attic Guard PLUS coverage chart and the Winter Design Insulation Requirements below with Pneumatic Equipment to comply with Minnesota Rules Chapter 7670.0260 Section 102.3.

WINTER DESIGN TEMP. (DEGREES F)	R-38		R-44		R-50	
	EXTRA DEPTH (inches)	EXTRA BAGS PER 1000 FT <sup>2</sup>	EXTRA DEPTH (inches)	EXTRA BAGS PER 1000 FT <sup>2</sup>	EXTRA DEPTH (inches)	EXTRA BAGS PER 1000 FT <sup>2</sup>
-17°	0"	0	0"	0"	.5"	1
-25°	.5"	1	1"	1.5	1.5"	2.5

Winter Design Temperatures - 99% Winter Design Temperatures from ASHRAE Handbook of Fundamentals.

Alberta Lea .....-17°	Duluth .....-21°	Mankato .....-17°	St. Cloud .....-15°
Alexandria .....-22°	Faribault .....-17°	Minneapolis/ .....-16°	Virginia .....-25°
Bemidji .....-31°	Fergus Falls .....-21°	St. Paul	Wilmar .....-15°
Brainerd .....-20°	International Falls ..-29°	Rochester .....-17°	Winona .....-14°

## R-VALUE INFORMATION

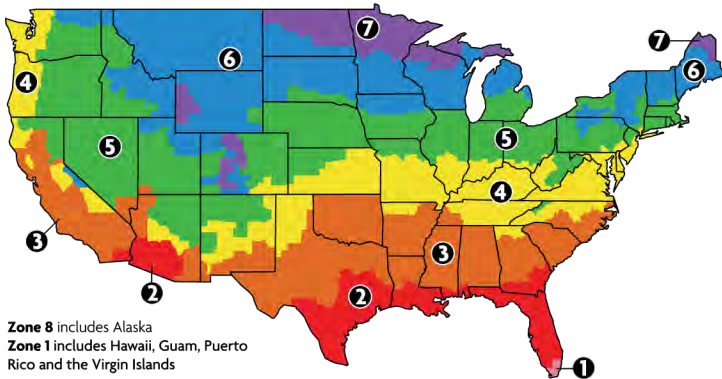
Insulation is specified by its thermal resistance or R-value. "R" means resistance to heat flow. The higher the R-value, the greater the insulating power.

The amount of insulation you need depends mainly on climate, type of heating (gas, oil, electricity) you use, and the area of the house you plan to insulate.

The U.S. Dept. of Energy has established minimum recommended insulation R-values for 8 distinct parts of the country, or insulation zones.

### FIND THE R-VALUES FOR YOUR ZONE.

If you live on the border between two zones, choose the higher rather than the lower values.



### R-VALUES FOR NEW WOOD-FRAMED HOUSES

Insulation Zone	Heating System	Attic	Cathedral Ceiling	Wall		Floor
				Cavity	Insulation Sheathing	
1	All	R-30 to R-49	R-22 to R-28	R-13 to R-15	None	R-13
2	Gas, Oil, Heat Pump, Electric Furnace	R-30 to R-60	R-22 to R-38	R-13 to R-15	None	R-13 R-19 to R-25
3	Gas, Oil, Heat Pump, Electric Furnace	R-30 to R-60	R-22 to R-38	R-13 to R-15	None	R-25
4	Gas, Oil, Heat Pump, Electric Furnace	R-38 to R-60	R-30 to R-38	R-13 to R-15	R-2.5 to R-6 R-5 to R-6	R-25 to R-30
5	Gas, Oil, Heat Pump, Electric Furnace	R-38 to R-60	R-30 to R-38 R-30 to R-60	R-13 to R-15 R-13 to R-21	R-2.5 to R-6 R-5 to R-6	R-25 to R-30
6	All	R-49 to R-60	R-30 to R-60	R-13 to R-21	R-5 to R-6	R-25 to R-30
7 & 8	All	R-49 to R-60	R-30 to R-60	R-13 to R-21	R-5 to R-6	R-25 to R-30

### R-VALUES FOR EXISTING WOOD-FRAMED HOUSES

Insulation Zone	Add Insulation To Attic		Floor
	Uninsulated Attic	Existing 3-4 Inches Of Insulation	
1	R-30 to R-49	R-25 to R-30	R-13
2	R-30 to R-60	R-25 to R-38	R-13 to R-19
3	R-30 to R-60	R-25 to R-38	R-19 to R-25
4	R-38 to R-60	R-38	R-25 to R-30
5	R-49 to R-60	R-38 to R-49	R-25 to R-30
6	R-49 to R-60	R-38 to R-49	R-25 to R-30
7 & 8	R-49 to R-60	R-38 to R-49	R-25 to R-30

#### WALL INSULATION: WHENEVER EXTERIOR SIDING IS REMOVED ON AN -

##### Uninsulated wood-frame wall:

- Drill holes in the sheathing and blow insulation into the empty wall cavity before installing the new siding
- Zones 3-4: Add R-5 insulative wall sheathing beneath the new siding
- Zones 5-8: Add R-5 to R-6 insulative wall sheathing beneath the new siding.

##### Insulated wood-frame wall:

- Zones 4 to 8: Add R-5 insulative sheathing before installing the new siding.

#### Guardian Fiberglass – for your health.

Indoor air quality is a growing concern with today's tighter construction practices for homes and buildings. And most people spend about 90% of their time indoors where, according to the U.S. EPA, "thousands of chemicals and biological pollutants are found", thus negatively affecting our health. That is why Guardian Fiberglass has made a point to achieve the highest possible product certification – Greenguard Certification. Greenguard Certified Products can significantly reduce the existence of hazardous emissions and promote a healthy home environment. Guardian building insulations are tested and certified to meet the tough Greenguard™ IAQ standards. Not all Guardian products are Greenguard certified. See applicable product specifications for details.



Guardian Fiberglass Insulation is part of ENERGY STAR® home sealing. When installed correctly, Guardian Fiberglass Insulation helps ensure that a home stays comfortable and energy efficient during periods of extreme temperatures.

#### The U.S. Green Building Council's LEED

(Leadership in Energy and Environmental Design) Green Building Rating System is a voluntary standards and certification program that defines high-performance green buildings -- which are more environmentally responsible, healthier, and more profitable structures.



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