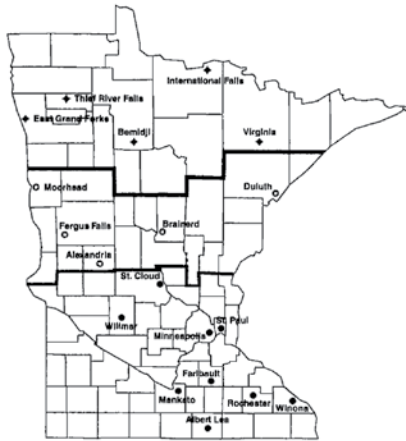




JM CLIMATE PRO® A2000 FIBER GLASS BLOWING WOOL FOR MINNESOTA ONLY



WINTER DESIGN TEMPERATURES

CITY	TEMPERATURE (F)	CITY	TEMPERATURE (F)
Winona	-14°	Brainerd	-20°
Willmar	-15°	Duluth	-21°
St. Cloud	-15°	Fergus Falls	-21°
Minneapolis	-16°	Alexandria	-22°
Mankato	-17°	Virginia	-25°
Rochester	-17°	International Falls	-29°
Albert Lea	-17°	Bemidji	-31°
Faribault	-17°		

To allow consumers to make fair comparisons and informed decisions, the Federal Trade Commission requires that all home insulation products be tested and labeled in a uniform manner. FTC Trade Regulation Rule Part 460 specifies that all products be rated at 75°F mean temperature.

Although the in-place performance of insulation materials may vary due to installation quality, temperature difference, framing or other factors, fibrous insulation performance generally improves as attics get colder. However, at extreme cold temperatures, the performance (R-value) of fiber glass insulation products may start to decline below the labeled value. This is due to the phenomenon of convection in the attic causing slight air movement through porous cavities within insulation materials. The extreme temperatures at which this effect occurs varies with product type and manufacturer. For instance, fiber glass batt insulation does not exhibit a loss of R-value at temperatures normally seen anywhere in the United States.

Blown loose-fill insulation products are more susceptible to convection than batts because the random orientation of the fibers provides less resistance to air flow. Despite this, only a few areas within the United States reach sustained temperatures cold enough to cause concern. All loose-fill products perform differently. Johns Manville has extensively tested our attic insulation products at extreme cold temperatures.

Minnesota law requires an insulation product to be designed to provide its stated R-value at winter design temperatures. The chart below shows the additional amount of Climate Pro A2000 insulation needed to attain a desired R-value at various winter design temperatures.

ADDITIONAL CLIMATE PRO A2000 NEEDED TO ATTAIN R-VALUE IN EXTREMELY COLD TEMPERATURES

WINTER DESIGN TEMPERATURE	R-38		R-44	
	EXTRA DEPTH INCHES	EXTRA BAGS PER 1,000 SQ. FT.	EXTRA DEPTH INCHES	EXTRA BAGS PER 1,000 SQ. FT.
-14 to -17°F	1	1.3	¼	0.3
-18 to 22°F	1½	1.9	¾	1
-23°F and colder	2½	3.2	2	2.6
WINTER DESIGN TEMPERATURE	R-50		R-60	
	EXTRA DEPTH INCHES	EXTRA BAGS PER 1,000 SQ. FT.	EXTRA DEPTH INCHES	EXTRA BAGS PER 1,000 SQ. FT.
-14 to -17°F	0	0	0	0
-18 to -22°F	0	0	0	0
-23°F and colder	1	1.4	0	0

WHAT YOU SHOULD KNOW ABOUT R-VALUES

The chart shows the R-values 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.

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

