



Ag-Barrier Insulation



Lange Ag Systems • 193 County Rd 9 NE • Willmar, MN
320-231-1470 • www.LangeAgSystems.com

Agricultural Applications

Keeping farm animals and livestock warm in the winter and cool in the summer is of vital importance. Ag-Barrier® Radiant Barrier products' flexibility, and ease of installation, makes it the farmer's problem solver.

Ag-Barrier® Radiant Barrier

Ag-Barrier® radiant barrier is a woven 8mm thick film with aluminum radiant barrier on one side and white polypropylene on the other. Ag-Barrier® radiant barrier has added UV and corrosion protection which helps manage the harsh environments found in agricultural barns.

Ag-Barrier® Radiant Barrier Improves Barn Performance

Heat moves three different ways: conduction, convection and radiant. Poultry, hog or dairy barns typically use insulation with an R-Value. R-value signifies the amount of time it takes heat to enter or leave a structure. Metal pole barns are highly conductive and radiate heat quite efficiently. 93% of metal building heat gain in the summer is from solar radiation. In winter months, up to 75% of heat loss is through radiation. Traditional R-Value rated insulation alone is not effective in managing the "radiant heat." Ag-Barrier® radiant barrier reflects 95% of the radiant heat back to its source.

Ag Barrier® in New Construction

Ag-Barrier® radiant barrier blocks 95% of radiant heat from entering the confinement area. In confinement houses where bubble foil insulation is already being used, Ag-Barrier radiant barrier is less expensive, saving farmers as much as 50% in the cost of insulation. According to the Department of Energy, the energy cost savings can be as much as 50%.

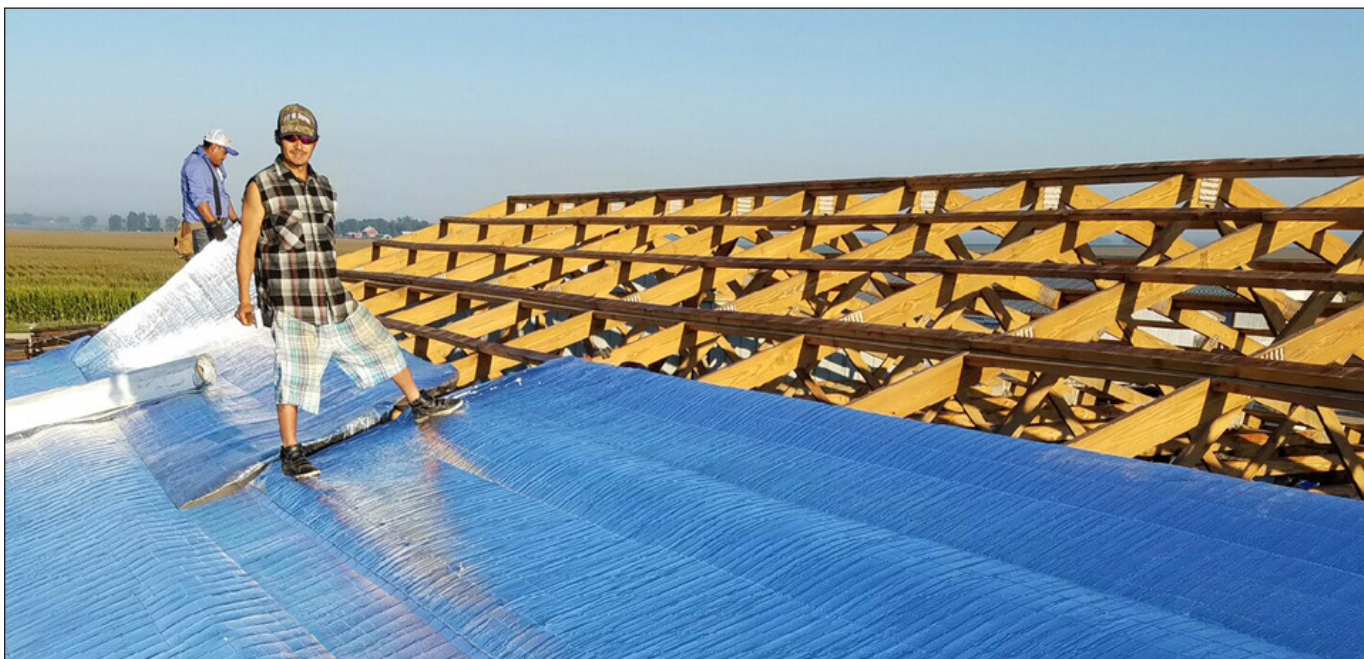
Ag Barrier® and Retrofits

Most farms have fiberglass insulation in the roof, walls or ceiling. Over time, fiberglass compacts and loses much of its efficiency. Ag Barrier® radiant barrier, when used as a poultry curtain or ceiling and wall wrap, increases the efficiency of a building's existing insulation by as much as 50%.



Other Problems Solved

Traditional insulation loses its effectiveness over time. Ag-Barrier® radiant barrier extends the life of existing insulation. Rodents and pests cannot penetrate the product and condensation rarely becomes an issue. During a power outage, Ag Barrier® radiant barrier reflects heat coming into the building and keeps the building cool longer until the fans become operational.



The “Black-Globe Effect”


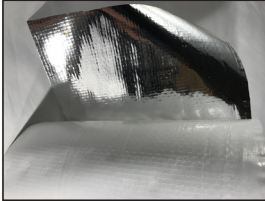
The “Black-Globe Effect” is a pronounced stress factor relating to the cost efficiency (or inefficiency) of weight gain in meat producing animals and birds. In temperatures above 78° F, an animal absorbs radiant energy from the sun whether indoors or outside. Farmers will find when they remove harmful heat radiation by installing Ag Barrier® radiant barrier, barn animals grow faster and require less feed and water.



Replaces Tri-Ply

Tri-Ply does not reflect radiant heat. Ag-Barrier has a radiant barrier coating that reflects 95 percent of the radiant heat in both directions. Tri-Ply does not have this additional feature. Therefore, Ag-Barrier keeps you cooler in the summer and warmer in the winter without condensation issues.

Technical Specs

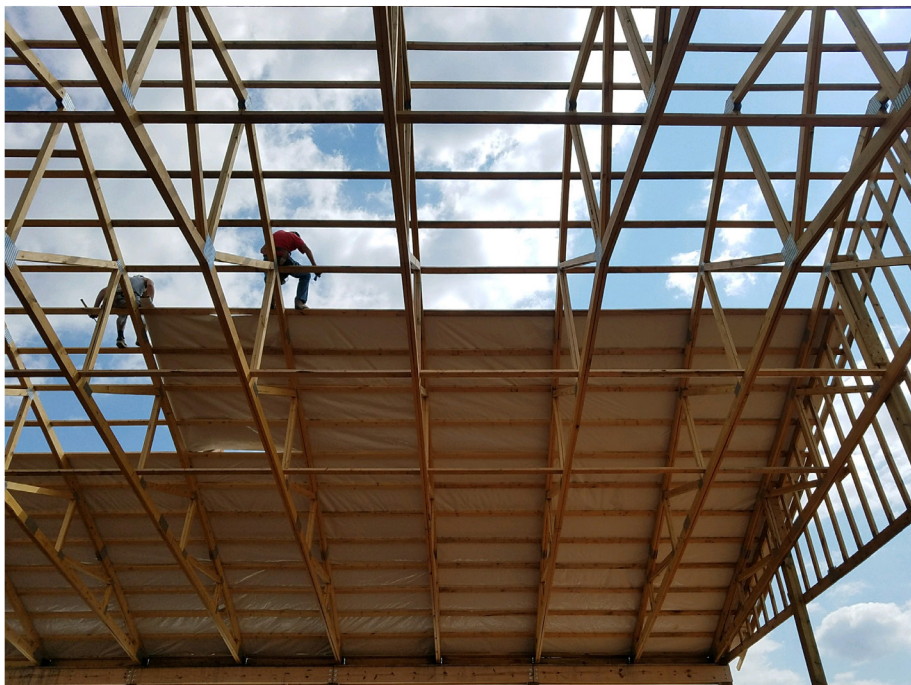
P R O D U C T S		
		RBSM Ag-Barrier White/Silver
		One side reflective one side Gray film polyethylene woven reinforcement
		0.05 95% Reflectivity ASTM 1371
		0 Perms ASTM E-96
		32 LBS 1,000 Sq. Ft.
		Length: 21.49 Width: 24.56 Pounds Force ASTM D2216
		70°±50°±5% Relative Humidity No Delamination ASTM 1313
		180°±5% Relative Humidity No Delamination ASTM 1313
SPECS		Class A/Class 1 0 Flame Spread 5 Smoke Dev. ASTM E-84
		Pass - No Growth ASTM C1338
EMISSION		
PERMEABILITY		
WEIGHT		
TEAR STRENGTH		
PLIABILITY		
ADHESIVE		
FLAME		
FUNGI		

Roll Sizes (Solid or Perforated)

4' x125' - 500 sq. ft. • 4' x 250' - 1,000 sq. ft. • 51" x 247' - 1,000 sq. ft.

Lange Ag Systems • 193 County Rd 9 NE • Willmar, MN
320-231-1470 • www.LangeAgSystems.com

Post-Frame Applications



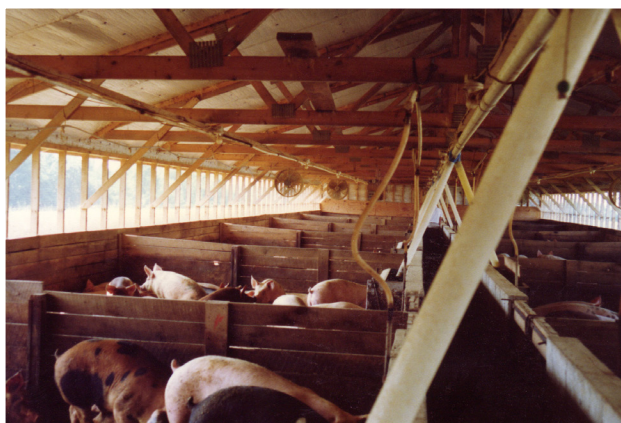
Ag-Barrier is ideal for Post Frame Buildings

Post-frame structures have larger posts and an interlocking frame that can handle greater loads than stud-wall construction. *Because posts are spaced farther apart than studs, post-frame buildings feature an exceptionally large wall cavity that provides ample room for insulation, lowering heating and cooling costs through the life of the building.*

Ag-Barrier installed over the rafters, underneath the roofing, can lower the temperature of the building by 22-28 degrees in the summer and retain heat in the winter, lowering fuel costs. And there is no up or down, in or out with Ag-Barrier. Ag-Barrier can also easily be installed in side-wall applications. The product is coated to pro-

tect from UV rays and urine.

In addition to immediate energy-savings, the benefits of Ag-Barrier minimizing the Black Globe effect cannot be understated. According to the Dept. of Agriculture, minimizing



the Black Globe effect means animals will require less food and water in addition

to staying healthier than those in structures that do not block the sun's UV rays.