

The Apollo AgriLiner is a two sided single foil for use as a heat reflective lining. It is engineered to provide a cost effective Bio Security System that greatly improves conditions inside poultry houses, increasing flock health and growth ratios by helping to reduce the detrimental effects associated with hot or cold stress, gas build-up, biological contaminants and cross infection.

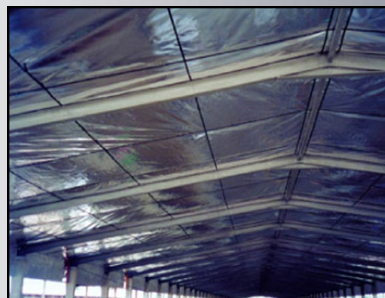
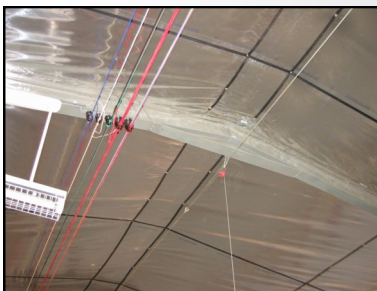
By simply draping the AgriLiner over or under the poultry house rafters, more than 96% of the radiating energy will be blocked resulting in much less stress on the birds. The system performs the same function when fitted to walls and can even act as an excellent vapour barrier helping to stop the ingress of outside humidity where this is a problem.

## Production Cycles

An Apollo AgriLiner will reflect in upwards of 96% of the infrared energy striking its bright, tarnish resistant surface. The liner's surfaces have a LOW EMISSIVITY of only 0.045. Increased stress on indoor reared birds usually result in longer production cycles and higher feed input for a given growth rate or egg laying capacity. Certainly during hot weather, heat stress caused by infrared energy from the sun striking the poultry house roof will exacerbate the problem. The sun's heat conducts through the roof then radiates directly from its underside as infrared energy onto the birds below. The additional heat also increases harmful gasses by facilitating microbe action in the litter.

## Environment Control

In hot climates, the most critical time of year for egg yields and growing times is in the heat of summer when temperatures easily exceed 27°C (80°F). In colder and temperate climates maintaining heat in the cooler months is the main criteria. By controlling the poultry house environment by installing Apollo AgriLiner™, growing times for flocks can be decreased and Bio Security systems enhanced. In Cold Climates 30% of energy costs can be saved, when our system is installed.



## Cleaning

The installed system act as a total water and air barrier and can take pressure cleaning up to 207 bar (3000 lbf/in<sup>2</sup> or psi) at a distance of 300 mm (12 inches). It's easily sanitised as it can be cleansed using an approved disinfectant or pressured cleaning techniques. AgriLiner does not offer any growth conditions for bacteria and moulds. (University of Gent LabMet Avecom MVW/TW/10-11-12-2005/02-1)

The highly reflective surface also enables light diffusion to be evenly spread over the whole poultry unit, so light levels may be adjusted more accurately.

Poultry houses are normally designed to provide protection against the egress of insects and rodents. However, with the addition of the liner, the following benefits become apparent:

- Does not provide a food source, or a nesting habitat.
- Moisture and dilute acid/alkali resistant.
- Can be pressure washed to remove waste products.

## Benefits of Fitting Apollo AgriLiner in a Poultry House

- Allows much easier environmental control over:-  
Temp, Humidity, Ventilation, Lighting ,Airflow.
- Increase rearing capacity in a given physical area, from 8-9 chickens per square meter to 15 chickens or from 3.6 chickens per square meter to 5-6 chickens.
- Can increase the weight of a chicken from 40 grams at one day old to 2.6kg at 42 days.
- Decreased rearing period of chickens from 49-50 days to 43-44 days
- Increased egg production when using lighting controls.
- Disease control. Decreased mortality rate of 6% - 8% and promotion of chicken health.
- AgriLiner prevents methane and carbon dioxide gases produced by external sources from migrating into the building. An Apollo AgriLiner restricts airborne radon to permeate from the subsoil into the building.
- Reduces Energy Costs



## Technical Details

Reflectivity (ASTM E903)	Over 96.50%
Emissivity (ASTM E408)	0.03
Carbon Emissions Saved	Up to 23kg per m2 /annum
Roll Size	96m x 1.25m 120m <sup>2</sup>
Nominal Thickness	145 microns
Tear Resistant (ASTM D882) Machine Direction (MD)	Tensile 6620N/m, Trouser tear 33.1N,
Tear Resistant (ASTM D882) Cross Direction (CD)	Tensile 5487N/m, Trouser tear 33.9N,
Beach Puncture Resistance (ASTM D774)	40.1kg-cm
Moisture/vapour Transmission Rate (ASTM E96)	0.021g/m <sup>2</sup> .
Corrosion resistant	Unique surface coating
BS476 Part 6 Fire Propagation	Class 0
BS476 Part 7 Surface Flame Spread	Class 1
Temperature Resistant	- 40°C to + 90°C
Pressure Wash Resistant	207 bar at 300mm
Chemical Resistant	Tested with approved concentrated disinfectants