# HEAT REFLECTING LINING SYSTEM FOR POULTRY HOUSES



# Maximize your performance





Improved flock performance Construction cost savings

Saves Energy





Keeping poultry cool in hot climates and creating a comfortable growing environment in temperate climates has long been a challenge for poultry growers worldwide. Valéron® AVA has been developed to meet both of these challenges and to provide higher productivity and poultry house efficiency.

Many loyal customers are continually purchasing Valéron AVA to upgrade their existing and new buildings in markets such as UK, Southern Africa, Belgium, India, Kenya, Japan and the Caribbean.



Valéron® AVA is a multi barrier system specifically developed for the poultry house environment and helps to control HEAT, AIR MOVEMENT and MOISTURE inside the building.





## Main Benefits:

Valéron<sup>®</sup> AVA is suitable for both steel and timber buildings and is proven to provide benefits for Broiler, Breeder, Layer production and can be utilised as part of new build construction or refurbishment programmes.

- Reflects 95% of solar heat away from the poultry house in hot climates.
- Retains heat in the poultry unit during winter months in temperate climates.
- Reduces cost of new construction and refurbishments
- Does not allow moisture into the building
- Keeps the structure air tight
- Improves ventilation
- Easy to sanitize

# ► HOT climate benefits:

In hot climates such as Africa and the Middle East the most challenging time of year to maintain optimum breeder performance, broiler growth ratios and egg production is in the heat of summer when temperatures exceed 30°C.

With the advent of easy to install Heat Reflecting Linings/ Radiant Barriers, poultry **production can be greatly enhanced** and in-house temperatures can more easily be maintained. The Valéron® AVA heat reflecting system enhances environment control over temperature, humidity and air movement within poultry houses. By controlling the poultry house environment through the use of the Valéron<sup>®</sup> AVA heat reflecting properties, average daily weight gains for broilers and egg production in breeders and layers can be maintained during spells of hot weather.

When using Valéron<sup>®</sup> AVA in extremely hot climates such as the Middle East, lower air exchange levels and fan speeds can be used in enclosed poultry units due to the reduced kWh heat load requirements of the cooling system - this reduces stress to the bird.

In simple terms if you have adequate capacity to cool or heat your poultry house Valéron® AVA will enhance climate stability of both new build and refurbished housing of either timber or steel construction.



# ► BIOSECURITY:

EASY TO SANITIZE, Valéron<sup>®</sup> AVA can be high pressure washed. Its smooth surface has been tested to show non-growth for 5 most commonly found bacteria:

Grade A clean out levels are easily achieved as the surface is smooth and non-porous therefore no aggressive foam cleaning solutions are required. Please see the installation manual. Valéron® AVA further contributes to general bird welfare by effectively sealing off the growing area from litter beetles and small rodents.

Resistant to bacteria: • Campylobacter

- Salmonella
- Escherichia
- PseudomonasClostridium

► COLDER climate benefits:

In temperate climates during winter both **productivity** and heating costs are a challenge to the poultry grower.

Valéron<sup>®</sup> AVA is able to provide efficiencies on both counts: Average heating costs can be reduced by up to **30%** and initial heat up times are reduced from 24hrs-plus to just **3** hours. Broiler producers have reported that the even spread of heat and improved climate has achieved up to **29%** saving of total litter used per flock.

In terms of productivity, users of Valéron<sup>®</sup> AVA report a 7 - 9 % increase in DWG (Daily Weight Gain) being achieved, better uniformity and reduced downgrades are resulting in higher yields for the processing plant.

# Basic principle of the multi barrier system:

## Ia. Radiant Barrier - Hot climate



- With Valéron<sup>®</sup> AVA poultry remains stress free
- Reduced heat load kWh
- Enhanced welfare leads to better bird behaviour & productivity
- · Reflects radiant heat out

### 2. Air barrier - Air tight building



- Valéron<sup>®</sup> AVA stops hot & cold air leakage through the roof and walls
- Provides a sealed airtight building with internal smooth surfaces that enhances air movement

#### No draughts – improved bird behaviour

## Ib. Radiant Barrier - Temperate climate in winter



- Valéron<sup>®</sup> AVA reduces heating costs by up to 24%
- Even distribution of heat & light
- No cold spots Better flock spread
- Reflects heat inwards during the winter
- · Reflects heat out in the summer

## 3. Moisture Barrier - Climate Control



- · Stops all moisture ingress through walls and roof
- · Allows easier control of air quality and humidity levels

# Improved Flock Spread

The example below indicates the positive difference that refurbishment with Valéron<sup>®</sup> AVA has made to bird behaviour at the UK'S largest poultry integrator.

It demonstrates the even distribution of heat/cooling/light and air tight properties of the Valéron AVA lining system and how it contributes to the chicks well-being. Chicks are being spread more evenly and are able to access the feed and drink lines more easily. This results in the flock establishing excellent KPI'S during the important first 10 day period.





## ► What our customers say

In Kenya the company Kenchic recently installed the Valéron<sup>®</sup> AVA lining and are reporting similar results to a 50mm roof insulation costing 3 times more. "The houses feel super cool" says Jim Tozer, operations manager of Kenchic. "We were recording temperatures as high as 70°C under the tin roofs, yet with the Valéron<sup>®</sup> AVA lining it never goes above  $26^{\circ}C$ "

"Our customers have reported savings of up to 30% on brooding cost. Initial heating up times reduced to a matter of a few hours from the usual 24 hours-plus, because of the properties of the Valéron<sup>®</sup> AVA and its ability to seal the unit so well. We see an improvement in litter quality - as a result of better environmental control - and a reduction in the need for 'topping up' with some companies seeing a 25% saving in litter usage.

I believe that one of the most exciting benefits we are seeing is a 7 - 9 % increase in daily weight gain being achieved in many countries we supply." Allan Meldrum CEO, Food Chain Innovation.

Sam Davison at Noble Foods: "We are currently seeing the benefits of improved ventilation, faster heating, retention of heat and easier clean down between flocks. Results indicate more than 25% saving in gas consumption"

"After lining the roof you could immediately notice the reduction of heat gain into the new production unit. The installation of Valéron<sup>®</sup> AVA was found to be very comparable to the installation of a triple layered plastic laminate usually employed and provided an excellent taut fit. The material we normally use starts to get expensive to maintain as it ages, leaks, and tears. Overall we noticed positive flock results in the shed where the new System was implemented. "I intend to buy more, and install the Valéron<sup>®</sup> AVA Lining System on any Cobb project I'm responsible for" says Dean Creasey of Cobb-Vantress.

# Construction and refurbishment cost savings:

Traditionally poultry producers and growers would have specified a pre-insulated roof panel or mass insulation in their new build and refurbishment projects as a means of reducing solar heat gain into the poultry growing unit. These types of insulation methods tend to only slow down heat gain during the early part of the day, but by evening time the building has become very hot as no radiant barrier has been installed.

Growers in the hot regions of the world have found that by installing Valéron<sup>®</sup> AVA they have an effective barrier to heat gain in their poultry units, furthermore they are able save on construction costs as Valéron<sup>®</sup> AVA performs the function of not only radiant barrier but moisture barrier also, therefore **no internal ceiling plate is required**.



Due to the high strength cross laminated core of the product – a unique film manufactured and supplied by Valéron Strength Films it is extremely durable and resistant to tearing even when stapled nailed or screw fixed and has at least a **10 year life span** when installed as per installation manual.

This highly durable lining system is **faster** to install and is very **low cost to ship and store**. This roll can easily be carried and can cover 120/m<sup>2</sup> and joining tape is always included in the price! In fact just one pallet contains enough lining material to cover 2 average size poultry units.

- Saves on-site labour costs
- Multifunctional no ceiling plate or vapour control layer required
- Saves on shipping and storage costs
- I Euro-pallet will line x 2 average size poultry units
- I Container will line up to 60 average size poultry units

# ► EASY INSTALLATION

## **NEW BUILD**

New build with Valéron<sup>®</sup> AVA installed above the purlin in steel frame African farm unit:







New build with Valéron<sup>®</sup> AVA installed below the purlin in steel frame SE Asia farm unit:



New build drop ceiling with Valéron<sup>®</sup> AVA being installed to the truss in a timber US farm unit







# EASY AND COST EFFECTIVE POULTRY UNIT UPGRADE

Refurbishment of steel frame units in Australia with Valéron® AVA installed above the purlins:



Refurbishment of timber frame units in the UK with Valéron® AVA installed under the purlin:





Valéron® AVA is an excellent solution to sealing off wall sections in closed side units and can also function as a rolling curtain to enhance brooding in open side units:







## Additional features

Find out why our customers rely on Valéron® AVA:



# ► Valéron<sup>®</sup> AVA Lining System a Global Solution:



Kenchic – Kenya



Hook 2 Sisters – UK



CP – Thailand



Noble foods – UK



Hytem – Japan



Cobb-Vantress - United States





#### America / Australasia

Valéron Strength Films 9505 Bamboo Rd. Houston, TX 77041, USA I-800-VALERON (825-3766) Tel: +1 713.462.6111 Fax: +1 713.996.4308

#### Europe / Middle East / Africa

Valéron Strength Films Nieuwmoersesteenweg 145 2910 Essen, Belgium Tel: +32 (0) 3.670.0730 Fax: +32 (0) 3.667.3559

## China / Asia

Valéron Strength Films Room 20A, No. 369, JiangSu Road, Zhaofeng World Trade Plaza, Shanghai, China. 200050 Tel: +86 21 5483 2229 Fax: +86 21 3256 8537

