



vebrocrete at
Huat Lai Resources
Berhad, Malaysia

vebro

PROJECT SHOWCASE

hatching success: PU concrete supports Malaysia's leading egg producer

Careproof is delighted to have completed a major flooring installation at Huat Lai Resources Berhad's (Huat Lai) new-build production facility in Melaka, one of the largest producers of commercial table eggs in Malaysia featuring engineered seamless resin flooring from Vebro Polymers.

The project involved laying approximately 6,000 m² of the **vebrocrete** MF system, a high-performance polyurethane concrete flooring system, seamlessly installed in a striking yellow finish.

This choice of product and colour was deliberate, fulfilling both functional and safety requirements. The floor was expertly laid with engineered falls throughout the facility, ensuring effective drainage and hygienic conditions critical to hatchery operations.



eggs, ethics & expansion: the story of Huat Lai's rise in Asia

Huat Lai is a leading fully integrated poultry company based in Melaka, Malaysia. Established in 1994, it has grown from a small 15-acre farm into one of the country's largest producers of commercial table eggs and poultry products.

With a comprehensive approach to poultry production, Huat Lai manages the entire value chain; from layer farms and broiler production to feed milling, poultry processing, and even eco-friendly paper egg tray manufacturing. This integration allows the company to maintain strict quality control and operational efficiency throughout its supply chain.

Committed to sustainability and animal welfare, the new development represents Malaysia's largest cage-free egg production facility, set to house 200,000 hens in a multi-tier aviary system. This expansion reflects the company's dedication to humane farming practices and meeting rising consumer demand for ethically produced eggs. Beyond Malaysia, Huat Lai has expanded its footprint in Southeast Asia with subsidiaries in Singapore and Indonesia, positioning itself as a key regional player.

inside Huat Lai's hatchery

At the heart of Huat Lai's success as one of Malaysia's leading poultry producers is its state-of-the-art industrial hatchery.

This large-scale facility is dedicated to the controlled incubation and hatching of poultry eggs, primarily chickens, which form the foundation of Huat Lai's integrated operations.

Unlike small-scale farms, Huat Lai's hatchery employs advanced technology and precise environmental controls to ensure maximum hatch rates, healthy chicks, and strict biosecurity – critical factors in maintaining the high standards for which the company is known.

With climate-controlled incubators that regulate temperature, humidity, and ventilation, every stage – from egg collection and incubation to hatching and sorting – is carefully monitored and often automated to achieve consistency and efficiency on a large scale.

Huat Lai's hatchery supplies two main types of chicks tailored to its comprehensive poultry production system: broilers and layers. Broiler chicks are bred for rapid growth and efficient meat production, meeting market demands swiftly and sustainably, while layer chicks are raised to produce high-quality table eggs over an extended period.

By managing this critical hatchery process in-house, Huat Lai ensures top-notch genetics, optimal chick health, and consistent quality, reinforcing its position as a leader in the region's poultry industry.



spotlight on the floor

unique challenges in hatchery environments

Hatchery environments present a unique set of challenges that demand robust flooring solutions.

First, these facilities experience frequent wet cleaning regimes using aggressive water jets and chemical sanitisers. Standing water and condensation are common, which can promote microbial growth if not properly managed. Flooring must be seamless and impervious, combined with carefully engineered falls to ensure efficient drainage and prevent water pooling, thereby minimising hygiene risks.

In addition, hatcheries regularly expose flooring to harsh chemicals including strong disinfectants, acids, alkalis, and feed residues that can degrade inferior materials over time. The flooring needs to offer outstanding chemical resistance, maintaining its integrity despite such aggressive cleaning agents and corrosive substances, which helps to extend the service life of the surface.

Temperature fluctuations further complicate hatchery environments. Incubation rooms operate at elevated temperatures while adjacent zones may be significantly cooler, resulting in thermal cycling that can stress flooring materials.

Flooring systems must tolerate continuous temperatures of around 70°C or higher for short periods, resisting cracking and degradation caused by these thermal stresses.

Crucially, hatcheries must comply with stringent food safety and hygiene standards to prevent the risk of contamination when mass producing consumable foodstuffs. Flooring must therefore be seamless, easy to clean, and non-porous to avoid harbouring bacteria. Meeting recognised food safety certifications confirms that the flooring system is hygienic, impervious, non-tainting, and suitable for use in food production environments.

The safety of staff working in wet and slippery conditions is another important consideration. Flooring must offer slip resistance and be installed with carefully designed slopes to ensure rapid drying and reduce slip risk. In areas with higher slip risk, additional coving or specialised slip-resistant finishes can be incorporated to enhance safety.



highly engineered polyurethane concrete flooring solution

6,000 m² of the **vebrocrete** MF flooring system was expertly installed across critical areas at Huat Lai to support its rigorous operational demands.

Key zones covered include the incubation room, hatcher room, corridors, common storage spaces, and the egg grading room – each with specific flooring requirements to ensure hygiene, safety, and durability.

vebrocrete PU MF is a high-performance, cement-modified polyurethane flooring product designed specifically to tackle the challenges found within poultry processing facilities such as Huat Lai.

A critical property is that the flooring's coefficient of thermal expansion closely matches that of the underlying concrete substrate, allowing it to expand and contract uniformly. This compatibility prevents stress build-up and subsequent cracking or delamination.

The result is a seamless, tough surface that is highly resistant to impact, abrasion, thermal shock, and chemical exposure - qualities essential in environments where hygiene, durability, and safety are paramount.

expertly installed by Careproof

Careproof, headed up by Alvin, is a specialist installer renowned for delivering high-performance industrial flooring systems.

With deep expertise in sectors that demand exceptional hygiene, chemical resistance, slip resistance, and durability, Alvin and his team have built a strong reputation across Southeast Asia and beyond.

Their work focuses on seamless resin-based polyurethane concrete screeds tailored for food processing, beverage, and poultry facilities, environments where precision, safety, and compliance are paramount.

This technical proficiency makes Careproof an ideal partner for demanding applications such as hatcheries, delivering flooring solutions that align with the highest international standards and client expectations.



environmental stewardship through material selection

From a health and environmental perspective, **vebrocrete** MF's formulation is free from phthalates and other hazardous substances listed on the Living Building Challenge (LBC) Red List.

This "Red List Free" status means the product avoids materials linked to health risks such as certain antimicrobials marketing health claims, flame retardants, and heavy metals. The result is a safer indoor environment for workers, reduced environmental impact across the product lifecycle, and compliance with green building frameworks and sustainability goals.

The Living Building Challenge (LBC) Red List identifies materials that pose significant health or environmental risks. **vebrocrete** MF's "Red List Free" status means it excludes substances known to be harmful, thereby contributing to safer indoor air quality and aligning with sustainability targets. This helps companies like Huat Lai meet stringent corporate social responsibility and green building commitments.



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working together...

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