

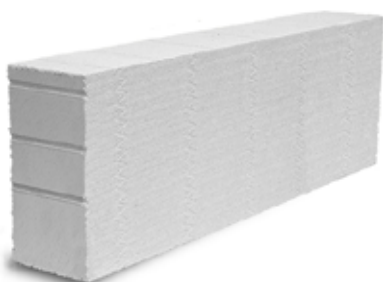


www.greencon.my



Product Catalogue / Guide

building
for better
environment



AUTOCLAVED AERATED CONCRETE

IBS SYSTEM & GREEN PRODUCT

Contents

Product Catalogue / Guide



Page
03

About Greencon



Page
06

AAC Solutions



Page
08

Technical & Quality



Page
09

Benefits of AAC



Page
12

Greencon Products



PRODUCT CATALOGUE / GUIDE

Copyright © 2018 KIM HOE THYE

This document is set to prohibit copying and duplicating.



About Greencon



In year 1945, Mr. Tan Tek Jin the founder of the company started the business as a building hardware shop in Muar, Johor. The company was actively involved in trading of building materials such as steel bar, cement, clay brick, roof tiles and etc. Since then, Kim Hoe Thye has grown over the years to facilitate the ever expanding business.

Our Commitment

Today, the company has a strong network in South Malaysia including Malacca and Negeri Sembilan. However, in view of the climate changes and the other environmental issues faced by the construction industry, Mr. Tan Tek Jin has realized his social and environmental responsibilities and decided to diversify into green industry. The founder of the company is committed to contribute in greener and more sustainable construction for the next generations. In year 2009, Kim Hoe Thye Industries Sdn. Bhd was incorporated to produce Autoclaved Aerated Concrete (AAC), which is recognized as a green material worldwide. A highly skilled, knowledgeable, experience and fully committed work force has been formed up in line with the founder's vision to produce quality green products and to assist the contractors towards sustainable buildings.

With the product trademark of Greencon™, the company are one the largest capacity in Malaysia of 380,000 m³ per annum. The machines are newly imported and the workers are well trained to ensure the manufacturing systems and processes efficiently meet the environmental requirements.



Vision & Mission

Customer oriented

Our management team, sales team and production team have embedded in our company the desire to serve our customers with excellent. We listen and understand our customers' needs carefully, with the expertise, knowledge and experience we have. We assist our customers to the fullest with decisions about the construction needs.

Products Quality

We understand the crucial important of the product quality. We comply to ISO 9001:2000 & ISO 14001:2004 and strive for high and consistent quality of our products and will continuously enhance the quality through innovation and R&D initiatives. We are also committed to develop new and innovative products to meet the global changing of expectations.

Environmental

We are committed to continuously improve our environmental performance to drive towards a greener and more sustainable planet. We ensure that all our manufacturing systems and process reflects this responsibility towards the earth and future generations.

What is AAC?

AAC stands for Autoclaved Aerated Concrete

More than half of the volume
an AAC block is air (>50%)

Mixture of **sand, cement, lime
and expanding agent**

1/3 of the weight of
ordinary concrete

Reduce at least 30% of waste
(Environmentally Friendly)

4-hour fire rating

Compressive strength of
≥ 5Mpa (C5 blocks)



CERTIFICATIONS

CIDB IBS CERTIFIED

SINGAPORE GREEN LABEL

ISO 9001:2008 QUALITY SYSTEM

ISO 14001:2004 ENVIRONMENTAL MANAGEMENT SYSTEM

SIRIM PRODUCT CERTIFICATION

BOMBA CERTIFICATION

WALLING SOLUTIONS



AAC BLOCKS

Greencon blocks can be used in internal and external applications, either as infill or load-bearing walls. The blocks can be easily cut into different sizes with tungsten carbide-tipped handsaw that gives maximum flexibility and minimizes wastage.

SKIM COAT & RENDER

Skimcoat and render can be applied to Greencon walls that delivered high quality finish.

For **Internal** wall, skim coat is applied to give smooth finish.
For **External** wall, render is applied where weather-resistance is required.



AAC PANELS

Greencon Panels can be used in internal and external applications, either as infill or load-bearing walls. The panels with steel reinforcement are faster, simpler installation and lighter than concrete panel systems.

Greencon Panels is available for **floor** and **wall** applications.

TECHNICAL & QUALITY

ASSIST CUSTOMERS WITH OUR EXPERTISE, KNOWLEDGE AND EXPERIENCE.

ON-SITE TRAINING & INSPECTION

.....

We provide free on-site training and inspection to our customers from the day one of their project until handover.

.....



TESTING FACILITY

.....

We have state-of-the-art equipments to assure accurate and reliable results that are dependable and are of the highest quality.

.....



CERTIFICATION

.....

We have all the required certification by SIRIM and SETSCO to assure compliance with statutory requirements in Malaysia and Singapore.

.....



Benefits of AAC

WHAT ARE THE BENEFITS OF AAC?



Low Construction Cost

Greencon blocks are approximately **1/3 the weight of normal concrete**. Total construction cost saving can be achieved through reduction in working load of foundation and steel bar.



CIDB IBS Certified

Greencon AAC blocks are **CIDB IBS certified**. With our blocks, contractors able to reduce the wastage, unskilled workers, less volume of building materials, increased construction site cleanliness and better quality control.



Fire Resistant

AAC is incombustible and suitable for fire-rated applications, with fire rating of **4 hours**. Greencon AAC does not generate toxic fume that pose a danger to occupants.

2X Faster Installation



AAC wall **installation rate is doubled (2x)**, compared to conventional brickworks. This is largely due to lighter weight, bigger in size and easier application in skimcoat.

Green Product



Greencon AAC is a **green product**, because it contains lower volumes of Portland cement (in comparison with traditional concrete), its non-polluting manufacturing process, and recycle waste and materials during manufacturing processes.

Energy Saving



AAC has **excellent thermal insulation** properties due to its cellular structure. Building constructed with AAC tends to be cooler and comfortable, significantly reduce heating and cooling cost.

SUSTAINABLE HABITAT



”building
for better
environment”



Raw Materials

AAC contains a pore content of approximately 80%. That is the reason why 4m³ of construction material can be produced out of 1m³ of raw materials. The low consumption of raw materials contributes to their conservation compared to other construction materials.



Recycling

By-products of AAC production such as condensate from the autoclaving, hardened AAC waste and unhardened AAC mixture can be recycled back into the production of AAC. Besides, other industrial waste like fly ash and slag can be utilized as main raw materials too.



Energy Consumption

AAC is autoclaved at a pressure of roughly 12 bar and 190°C. Energy is consumed during this process. The total amount of energy consumed during the production of AAC, including conditioning energy for raw materials, internal power consumption and energy contents for raw materials which are not produced in AAC plant (e.g. lime, cement, aluminium powder), is found to be a total consumption of 2010MJ/t or 1005MJ/m³ at density of 500kg/m³, which is 2 or 3 times lower than other building materials such as burnt bricks.



Production Emissions

Emissions of gasses such as CO₂, CO and NO_x which originate from the steam generation while producing AAC are relatively low compared, for example, with burning processes in bricks industry.



Thermal Control

With excellent thermal insulation properties, AAC building has very good thermal resistance quality and therefore in many instances the use of supplementary insulation is unnecessary. It also takes less energy to heat or to cool an AAC building.



Moisture control

AAC is breathable and effective in moderating the moisture levels and maintaining the correct relative humidity to achieve a comfortable and mould-free living environment.



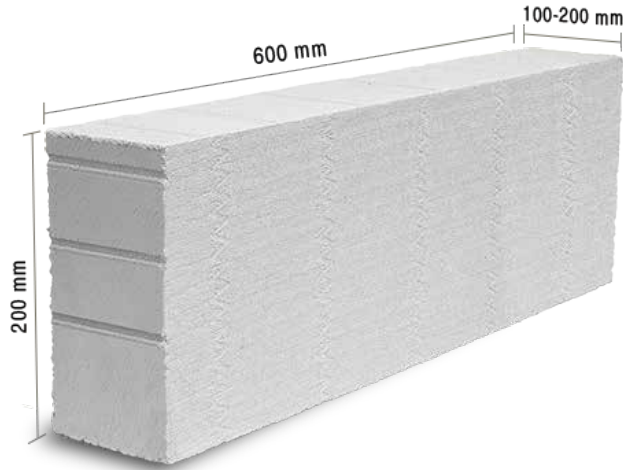
Product weight

The dry density of AAC is approximately one-quarter of normal high density concrete, resulting in advantages in transportation as a good ratio of volume to weight permits full utilization of transport capacity, and means effectively 1 truck of normal materials equal to 5 trucks of AAC products.



AAC BLOCKS

Autoclaved Aerated Concrete



Greencon AAC blocks provide superior strength that gives resistance against cracks, impact strength and acoustic performance. The blocks can be used in internal and external applications, either as infill or load-bearing walls.

Greencon AAC blocks can be easily cut into different sizes with tungsten carbide-tipped handsaw that gives maximum flexibility and minimizes wastage.

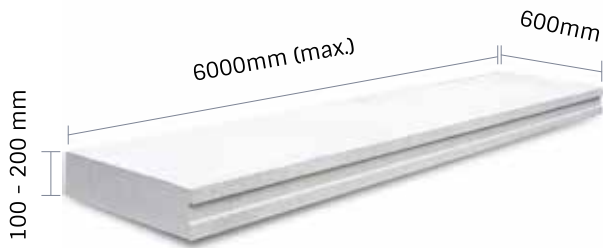
PROPERTY	VALUE	
	C3	C5
Specified Compressive Strength	$\geq 3 \text{ N/mm}^2$ or $\geq 3 \text{ MPa}$	$\geq 5 \text{ N/mm}^2$ or $\geq 5 \text{ MPa}$
Dry Density	$500 \pm 50 \text{ kg / m}^3$	$600 \pm 50 \text{ kg / m}^3$
Working Density	$700 \pm 50 \text{ kg / m}^3$	$850 \pm 50 \text{ kg / m}^3$
Fire Resistance	4 hours	
Dimension	600mm (l) x 200mm (h) x 100 - 200mm (t)	
Thermal Conductivity	0.17 W/mK - 0.23 W/mK	
Shrinkage	0.5mm / m	
Dimensional Tolerance	$\pm 2\text{mm}$	
Sound Reduction (STC)	35 - 52 dB	

Note : All dimensions, densities are nominal. For actual dimensional tolerances, please refer to the Greencon™ product specification. Higher compressive strength and height of blocks are available upon request.

GREENCON™ AAC STANDARD BLOCK SIZE RANGE	Standard Nominal Length (mm)	600	600	600	600	600
	Standard Nominal Length (mm)	200	200	200	200	200
	Nominal Block Thickness (mm)	75	100	125	150	200
	Meter Square Per Pallet (m ²)	28.80	21.60	17.28	14.40	10.08
	No. Of Pieces Per Pallet	240	180	144	120	84
	Nominal Weight "C3" (KG)	-	8.5 ±	10.6 ±	12.75 ±	17 ±
	Nominal Weight "C5" (KG)	7 ±	9.5 ±	12 ±	14.25 ±	19 ±

AAC PANELS

Autoclaved Aerated Concrete



Greencon™ Panels

Greencon Panels can be used in internal and external applications, either as infill or load-bearing walls. The panels with steel reinforcement are faster, simpler installation and lighter than concrete panel systems.

PROPERTY	VALUE
Length x Width	6m (max) x 600mm
Thickness	100 - 200mm
Working Density	750 - 900 kg/m ³
Dry Density	550 ± 50 kg / m ³
Specified Compressive Strength	≥ 3.5 N/mm ² or ≥ 3.5 MPa
Modulus of Elasticity	2190 MPa

AAC LINTELS

Autoclaved Aerated Concrete



Greencon™ Lintels

Greencon lintels are used as spreaders under the end supports of reinforced concrete beams to distribute high bearing stresses into the supporting AAC wall. The lintels can eliminate work inconvenience with cast-in-situ on site.

WALL FINISHING

TBA, Render, Skim Coats

EMIX THIN MORTAR

- Fire resistance of over 260 minutes at 1,300°C
- Shrinkage compensated
- Single component
- Thin layer application

Color: Grey

Coverage: Approx. 19m² wall area / 40kg bag for 600 x 200 x 100mm thick ALC block wall

Density: 1.4 kg/litre (dry); 2 kg/litre (wet)



EMIX BLOCK PLASTER

- Suitable for general filling and patching
- Single component
- Shrinkage compensated

Color: Grey

Coverage: Approx. 1.4kg/m²/mm thick

Coat thickness: 2 - 6mm per coat

Pot life: Approx. 2 hours

EMIX RENDER

- External AAC wall surfaces
- Single component
- Shrinkage compensated

Color: Grey

Coverage: Approx. 1.6kg/m²/mm thick

Coat thickness: 10 - 15mm per coat

Pot life: Approx. 1 hour



EMIX FINISH

- Finishing coat
- To be applied on Emix Render series product
- Single component
- High workability, extra smooth finishing

Color: Grey, White

Coverage: Approx. 1.2kg/m²/mm thick

Coat thickness: 1 - 2 mm per coat

Pot life: Approx. 3 hours



TRACK RECORDS

Greencon AAC products have been the preferred choice in Malaysia and Singapore due to superior quality, versatile, cost efficient and green products.



Residential High-Rise



Hospitals



Universities & Schools



Residential Landed



Shopping Malls



Hotels



Manufactured by:



金和泰工業有限公司

SINCE 创立于 : 2009

KIM HOE THYE INDUSTRIES SDN BHD (Company No. 849519-K)

HQ : NO. 26, JALAN JABBAR, PARIT JAWA, 84150 MUAR, JOHOR, MALAYSIA

FACTORY (MUAR) : No. 99, LOT 143, JALAN AIR MANIS, BUKIT MOR. 84150 PARIT JAWA, MUAR, JOHOR, MALAYSIA
TEL: +606-987 2288 FAX: +606-987 2299

FACTORY (SENAWANG) : LOT 39, PERSIARAN BUNGA TANJUNG 2, SENAWANG INDUSTRIAL PARK, 70450 SEREMBAN, NEGERI SEMBILAN
TEL: +606-675 2288 FAX: +606-675 2299

SALES OFFICE (KL) : NO. 11, JALAN JURUANALISIS U1/35A, U1 HICOM GLENMARIE, 40150 SHAH ALAM, SELANGOR, MALAYSIA
TEL: +603-5567 9119 FAX: +606-5569 9929