



Delivering World-class Lightweight Solutions

EFFICIENT  
STRONG  
PRECISION

**Starken AAC  
Wall Panels**

*Internal Infill Walls*



## Delivering Quality Sustainable Building Solutions

**Starken AAC Sdn Bhd is the leading AAC (Autoclaved Aerated Concrete) manufacturer in Malaysia that aims to deliver quality products to its customers. With its commitment to quality products & services, Starken invested in the state-of-the-art machineries and technology supplied by Wehrhahn of Germany.**

Situated at Serendah, Selangor. Starken's production facility manufactures blocks efficiently and engineered panels cost-effectively with an annual capacity of 600,000 cubic meters. It covers a wide range of AAC products with various compressive strengths to cater for specific architectural and design requirements of various types of buildings. Starken's main products include AAC blocks, panels and lintels with dry density of 450 kg/m<sup>3</sup> – 820 kg/m<sup>3</sup>.

With its storage capacity of more than 10,000 m<sup>2</sup>, the supply of AAC products will always be sufficient to meet the demand of on-going projects.

## Commitment to Excellence

Starken prides itself on maintaining the highest level of customer service and support. Every member of Starken is committed to both excellence in customer service and the production of quality building materials.

At Starken, we listen very carefully to our customers' needs and concerns. We ensure that our customers receive better value and excellent product performance through our expertise, knowledge and experience in assisting them in all areas of their construction related needs on AAC products.

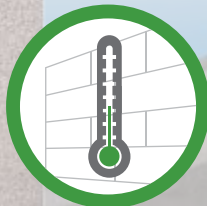




# ADVANTAGES OF AUTOCLAVED AERATED CONCRETE WALL PANEL



**Cost-effective**



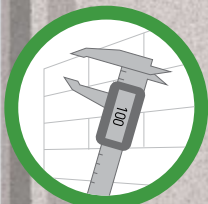
**Thermal Comfort &  
Energy Saving**



**Lightweight**



**Eco-friendly**



**Dimensional  
Accuracy**



**Durable**



**Sound  
Resistant**



**Impact Resistant**



**Good Workability**



**Water Resistant**



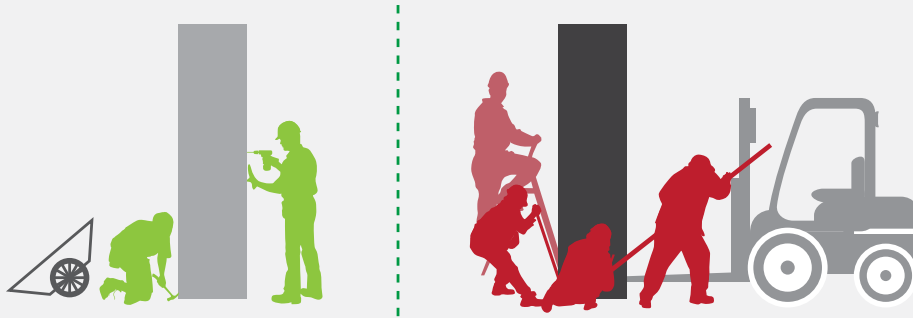
**Fire Resistant**

# Key Benefits of Wall Panel

1

## Manpower Efficiency

AAC Panel vs Concrete Panel



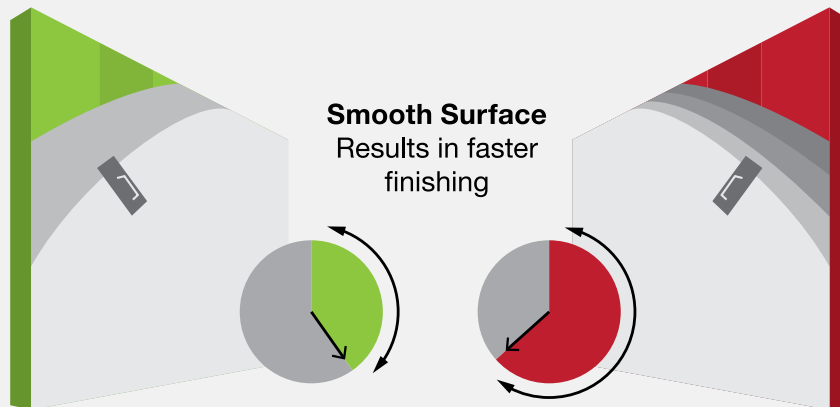
**AAC Panel**  
(Weight 150kg±)

**Concrete Panel**  
(Weight 250kg±)

2

## Wall Installation & Finishing Speed

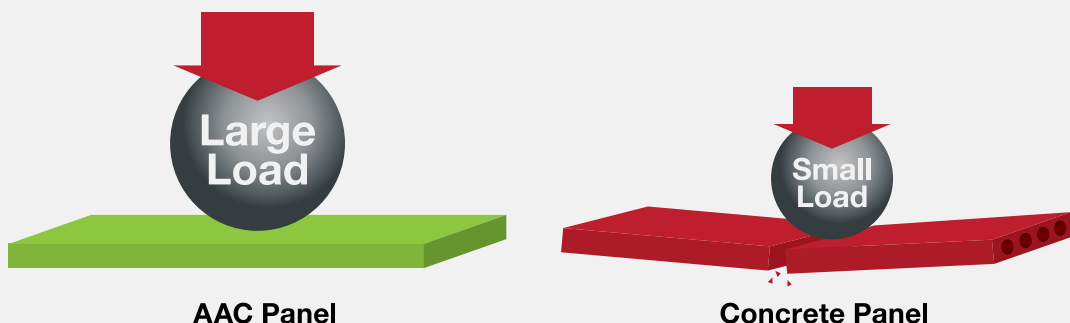
AAC Panel vs Concrete Panel



3

## Reinforcement Strength

AAC Panel vs Concrete Panel



**AAC Panel**

**Concrete Panel**

## Starken Infill Wall Panels

Starken infill wall panels are reinforced lightweight concrete panels that can be used as internal non-loadbearing wall partitions as a replacement for common brickwalls. They are suitable to be used for both steel and concrete-framed structures.

Starken infill wall panels are much lighter than any other solid or hollow core concrete wall panel systems. Overall, the system offers rapid installation and faster completion time. The lighter weight of the panels will result in savings in the foundation and structure costs. A typical 3m L x 0.1m T x 0.6m W AAC panel only weighs approximately 150kg. A similar size hollow core panel weighs close to 250kg.

Compressive Strength: **3.5 MPa**

Working Density: **780 - 820 kg/m<sup>3</sup>**

Modulus of Elasticity: **2,190 MPa**

Thermal Conductivity: **0.172 w/mK\***

Fire Resistance: **4 Hours\*\***

*Note: All values shown are nominal.*

*\*Dry State*

*\*\*Sirim Test Report 2016FE0307 (29/06/2016)*

Starken wall panels are designed with a double steel mesh to withstand uniform lateral loads. For the internal infill wall applications, to assist the contractors, Starken offers the cost effective standard panel length from 2,400 - 3,000mm which designed to withstand a service lateral pressure of up to 0.5kPa. For longer panels with higher lateral loads of up to 1.0 kPa, Starken offers panel length from 3,300 - 4,000mm.

### Working dimension:

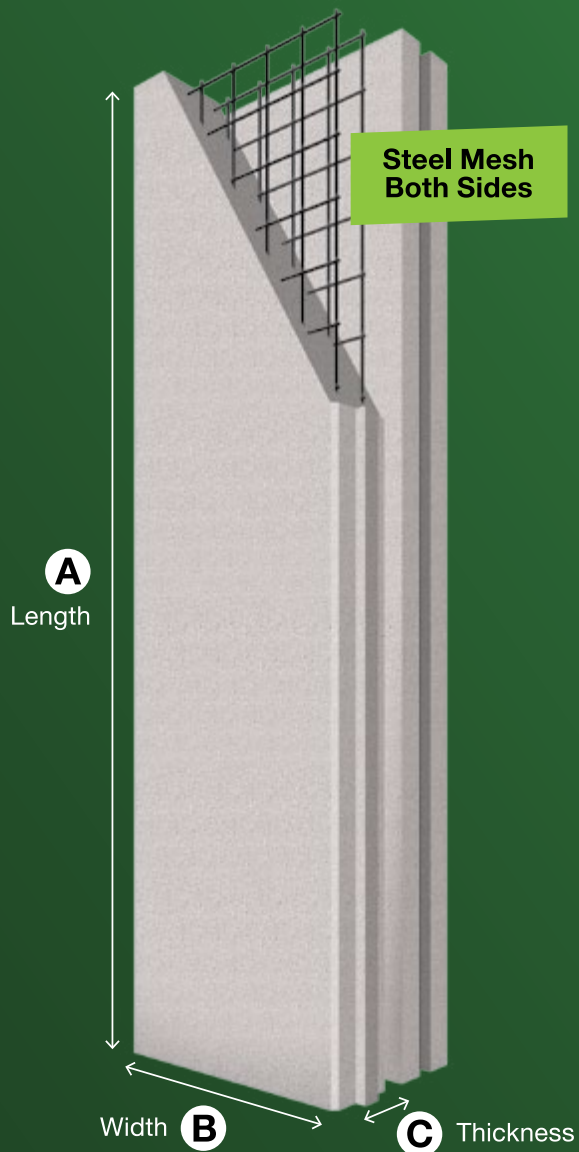
**A** Length: **2,400 - 4,000mm (±5mm)**  
*(In multiple of 10mm)*

**B** Width: **600mm (±2mm)**

**C** Thickness: **100mm (±2mm)**

Lateral Loads : **0.5 kPa** (Length from 3,000mm)  
**1.0 kPa** (Length from 4,000mm)

We advise early consultations with Starken Technical Department during the design stage to ensure all the intended design requirements are fully met in order to select the right panel solution.



## Finishes

Starken infill wall panels can be finished with skim-coating or rendering systems.

### Coating for Internal Partition:

Dry Area: **5mm Thickness \*Skimcoat**

\*\*Wet Area: **10mm Thickness \*Render with  
\*\*\*Tile Finish**

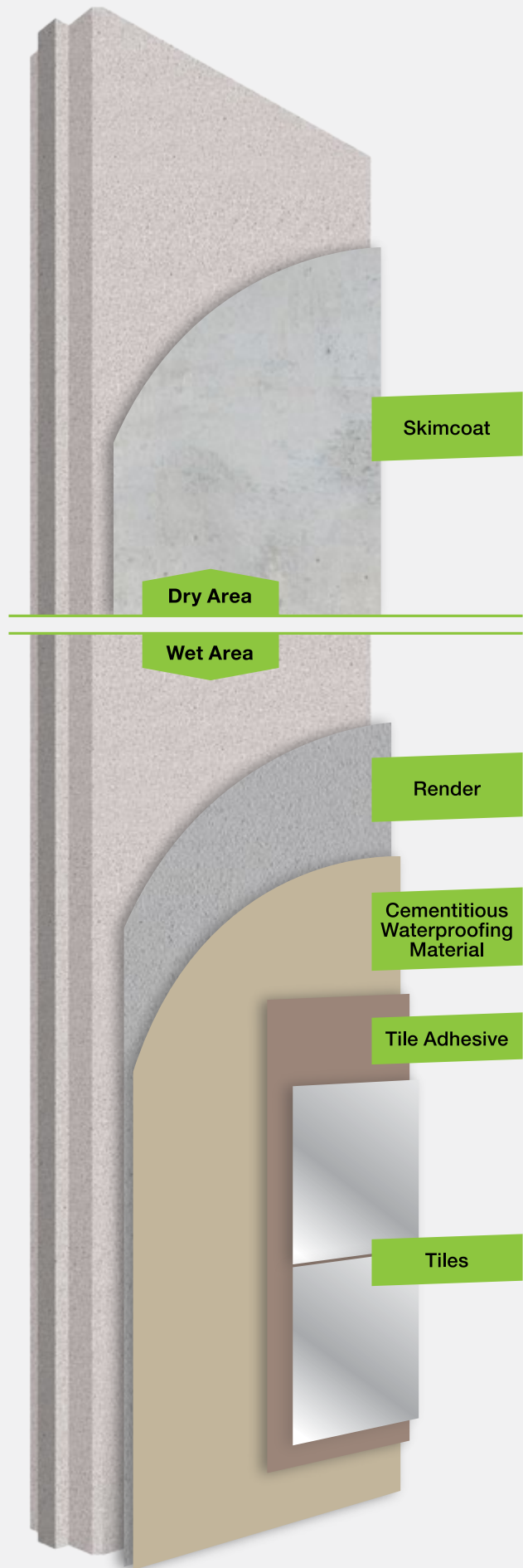
*Note: \*Starken Skimcoat and Render coating systems  
\*\*Apply cementitious type waterproofing material  
\*\*\*Use tile adhesive*

To achieve the best possible quality finish, the wall surface should be cleaned of oil, dusts before applying the coating system.

Emulsion or acrylic paint system is applied on the skim-coated or rendered wall surface to provide the final pleasing aesthetic looks.

## Conduits

M&E conduits can be concealed in Starken infill wall panel system. Chasing is carried out up to 30mm deep and 40mm wide. Refer to the installation detail for chasing allowance.



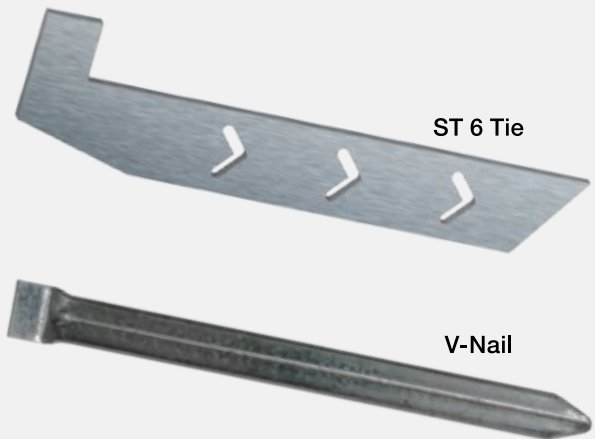


## Fixtures

Nylon plugs should be used on STARKEN infill wall panels to fix low to medium duty wall fixtures. There are easily available from Fischer, Hilti or Ramset.

For heavy duty applications, a suitable epoxy grout system should be used to hang heavy fixtures.

STARKEN advises consultations with the fixing suppliers to select the best fixing solutions for projects.



## Installation

STARKEN infill wall panel system comes with a simple installation method. The panels can be installed in vertical or horizontal orientation. The vertical installation is the preferred method as the panel supports at the base and top are readily provided by the structure. For horizontal erection, additional vertical supports in the form of stiffeners or secondary columns need to be installed prior to panel erection.

Each panel is easily transported and manoeuvred into position using dollies, a panel trolley or other suitable equipment. Once in position, the panel is tilted upright and secured to the supporting structure using a special ST8 tie brackets at the base and the top of the panel. 2 V-nails are then nailed into the panel at each tie bracket.



STARKEN Thin Bed Adhesive(TBA) is used to join the panel at the joints using a steel trowel and a notched trowel. Concrete fasteners are then used to secure the ST8 tie to the concrete members. For steel members, it is simply welded for secure fixing.

Expansion Joint(E.J) should be incorporated for panel wall that exceeds 8m in length. Typical detail for the E.J is a 10mm wide gap infilled with a suitable backing rod and flexible sealant material. Additional insulation materials such as glasswools or rockwools can be incorporated if deemed necessary.



Thin Bed Adhesive



Render (Outdoor)



Skim Coat Base



Skim Coat Finish (Indoor)





Delivering World-class Lightweight Solutions

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