We are proud to say that “SIPOD PANELS” are manufactured using recycled waste from the burning of coal to produce power, AMAZING!!

Sipod®

ECO CORE Structural Panels

Amarco Modular

"A Beautiful Place"

Table of Contents

Our Mission

Our mission when we began on the journey for SIPOD is to ensure that we are always developing building systems and products to make an environmental and innovation difference for the building industry. We know that if we make building easier and more cost effective for the builder this will mean a faster and more effective construction for the end users, making building affordable.

Additionally, we minimise any impact on the environment when manufacturing and building using our products and systems, infact we believe we are making products and systems that are conserving the environment is a positive way by sourcing by products and reusable materials that presently or potentially can hurt the environment.

The SIPOD methodology is that we always remember we are supplying building systems and products for buildings that house people. Therefore we are proud to say that we develop products or systems that are safer, stronger, environmentally positive and at a lower cost overall.

Delivering Quality Sustainable Building Solutions

SIPOD manufacturing partner is one of the leading panel manufacturers in the world that aims to deliver quality products to its customers with its commitment to quality products & services.

SIPOD's production facility manufacturers blocks efficiently and engineered panels cost-effectively with an annual capacity of 600,000 cubic meters. It covers a wide range of panel products with various compressive strengths to cater for specific architectural and design requirements of various types of buildings. SIPOD's main products include panel blocks, panels and lintels with density of 450 kg/m³ – 700 kg/m³.

Commitment to Excellence

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

At SIPOD, 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 panel related products.

LIst of the Benefits of Fly Ash

What is fly ash?

- Fly ash is the residue that is left from burning coal, and this is formed when the gaseous releases of the coal is efficiently cooled. It is somewhat like a glass powder that is fine in nature. However, the chemical constituents of this residue might vary from one other. Fly ash has several industrial applications and is widely found in power plant chimneys. The material is also used as substitute cement by mixing it with lime and water. The material is embedded with myriad beneficial features and so is being utilized as a significant building material for the construction purposes.

Below listed are few of the advantages and disadvantages of fly ash concrete.

- In addition, products with SIP-ASH have both a lower initial cost and lower ultimate cost due to the reduced need for repairs and replacement.
- SIP-ASH also reduces the amount of waste being sent to landfills.Fly ash not used in concrete or other beneficial ways is disposed of in landfills and collection ponds across in most countries around the world.
- SIP-ASH replaces cement in the concrete mix design.By reducing the amount of cement needed this ultimately reduces CO2 emissions – when cement is manufactured, 1 ton of CO2 is produced for every ton of cement.
- Concrete produced with SIP-ASH allows specifiers and contractors the opportunity to use a product that is the backbone of green building.
- Increased durability, lower permeability, higher ultimate strength, reduced alkali-silica reactivity, better for the environment – each describes concrete products designed with SIP-ASH.
- **Reduced slump loss**. More dependable concrete allows for greater working time, especially in hot weather.
- **Reduced segregation.** Improved cohesiveness of fly ash concrete reduces segregation that can lead to rock pockets.
- **Reduced bleeding.** Fewer bleed channels decreases porosity and chemical attack. Bleed streaking is reduced for architectural finishes. Improved paste to aggregate contact results in enhanced bond strengths.
- **Improved finishing.** Sharp, clear architectural definition is easier to achieve, with less worry about in-place integrity.
- **Increased ease of pumping.** Pumping requires less energy; longer pumping distances are possible.
- **Increased workability**. Concrete is easier to place with less effort, responding better to vibration to fill forms more completely.

Concrete in its hardened state - with fly ash - shows improved performance with:

- **Greater strength.** Fly ash increases in strength over time, continuing to combine with free lime.
- **Decreased permeability.** Increased density and long-term pozzolanic action of fly ash, which ties up free lime, results in fewer bleed channels and decreases permeability.
- **Increased durability.** The lower permeability of concrete with fly ash also helps keep aggressive com pounds on the surface, where destructive action is lessened. Fly ash concrete is also more resistant to attack by sulfate, mild acid, and soft (lime hungry) water.
- **Reduced alkali silica reactivity.** Fly ash combines with alkalis from cement that might otherwise combine with silica from aggregates, thereby preventing destructive expansion.
- **Reduced heat of hydration.** The pozzolanic reaction between fly ash and lime generates less heat, result ing in reduced thermal cracking when fly ash is used to replace a percentage of Portland Cement.
- **Reduced efflorescence.** Fly ash chemically binds free lime and salts that can create efflorescence. The lower permeability of concrete with fly ash can help to hold efflorescence-producing compounds inside the concrete.

Sound Resistant

Scientifically proven to provide better insulation to sound transmitted by air compared with other solid building materials.

Durable

History of usage dated more than 25+ years protecting building envelopes and remain durable even under extreme weather conditions.

Fire Resistant

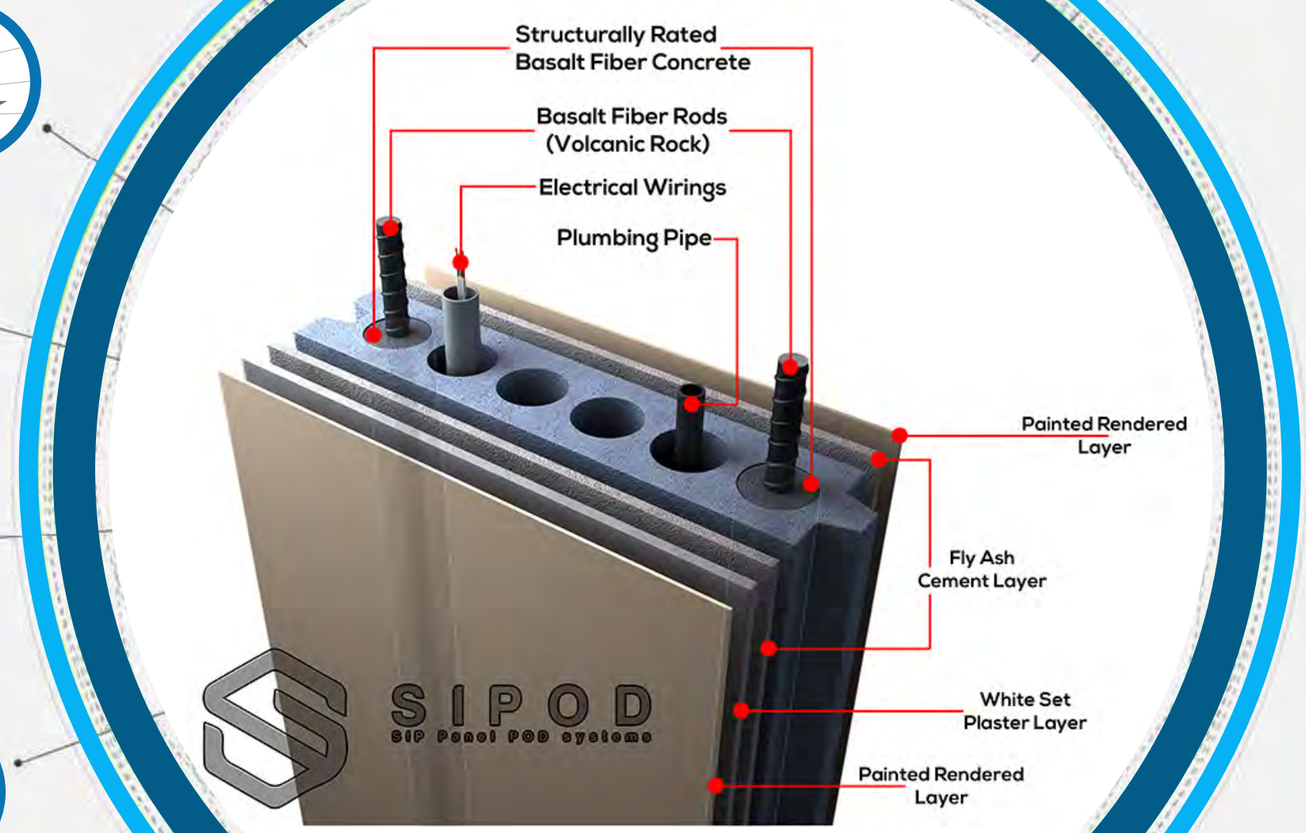
More superior than traditional masonry for products with fire resistant up to 4 hours for a nominal panel thickness of 100 mm.

Dimensional Accuracy

Blocks and panels are manufactured under factory environment using state-of-the art modern machineries resulting in products with tighter dimensional tolerances.

Cost-effective

Speed and ease of installation result in cost savings compared to traditional masonry construction.



Impact Resistant

Wall erected using SIPOD products is classified as "Severe Duty" grade and able to withstand impact loads potentially resulting from rough usage.

Good Workability

SIPOD products can be easily sawn, cut, carved, nailed or drilled using ordinary hand tools.

Thermal Comfort & Energy Saving

SIPOD panels excellent thermal insulation properties result in improved comfort level and saves heating and cooling costs.

Lightweight

SIPOD products density is about one-fifth of that of normal concrete blocks, making it easily handled.

Water Resistant

SIPOD panel composition mixtures have a high content of fly ash and super plasticisers. Fly ash is a natural water repelent which ensures our products have a high level of water resistance against rising damp and water damage.

Eco-friendly

Building using SIPOD to help reduce at least 30% of environmental waste, decrease 50% of greenhouse radiation and over 60% integrated energy on the surface of brick.

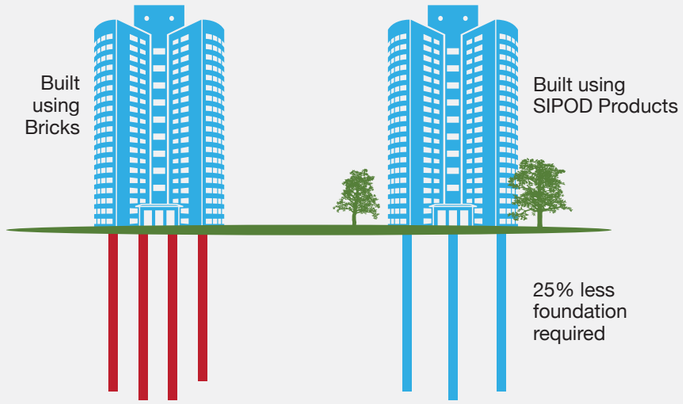
SIPOD products are made using various mixtures of recycled and waste ingredients such as fly ash as a main ingredient, natural muds, sands, recycled plastics, coconut husks, volcanic rock, pumice to name a few. The slurry is poured and moulded to form lightweight blocks, panels and lintels upon which are cured. The high-pressure curing mechanism facilities the process of the moulded materials producing physically and chemically stable products that weigh about 1/5 of normal concrete. SIPOD products contain millions of tiny non-connecting air pockets yielding superior thermal insulation property. SIPOD products are typically installed to form walls, floors and roofs.

SIPOD products are becoming the preferred building products for constructing residential, hotel, industrial and public buildings because of its natural composition and non-toxic property, saves energy and environmental friendly. SIPOD products possess the durability characteristics similar to normal concrete or stone, yet with workability better than wood.

Cost-saving Benefits

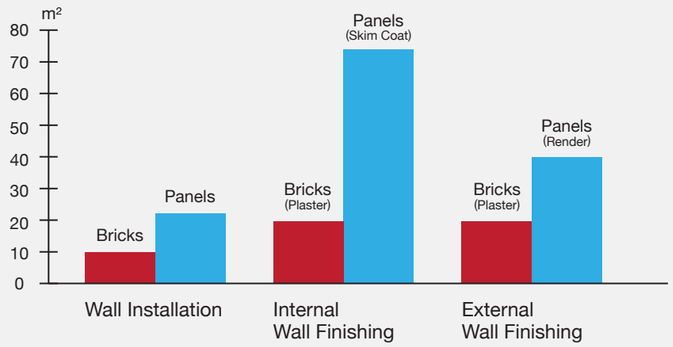
1 Save up to 25% of Foundation Cost

Brick vs SIPOD Panels



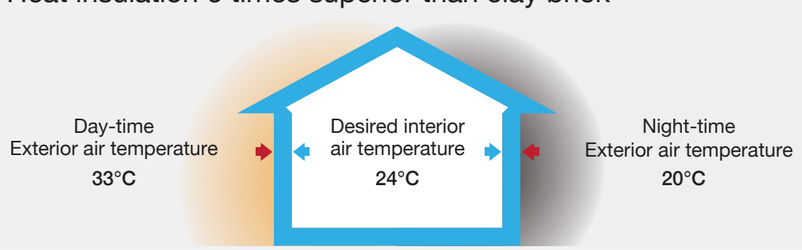
2 Wall Installation Speed

SIPOD Block vs Panels (m^2/ worker/ day)



3 Thermal Control

Heat insulation 6 times superior than clay brick



Note : Building uses approximately 30% less energy for cooling and heating the interior air space
These figures will be influenced by placement of building and other design element of each building

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SIPOD Panel Benefits

1. **Eco-friendly**
   Our focus when we design, produce and supply the SIPOD building products is to ensure we are using the highest content of sustainable ingredients. We presently use ingredients in our panels such as natural muds and sands, volcanic rock, pumice stone, coconut husks and recycled plastics to name a few. One of the main ingredients we choose for all of our building products is FLY ASH. * See details in “list of benefits” page in this information brochure.

2. **Lightweight**
   Our standard panel product weighs only 42-44kgs per sqm depending on the thickness of the panel, which is a great deal lighter than the weight of a traditional brick or concrete wall.
   Due to the reduction in weight this translates to savings on sizes of foundations, footings and the main structure. In addition to this the light weight benefits mean a lower cost of construction in soft soil construction projects.
3. **High strength**
   To ensure and maintain high strength properties of the SIPOD products we also include the use of basalt meshes (Volcanic rock) and various sustainable meshes combined with modifier additives.
   Additional the unique structural hollowcore with structural core design of the panels when installed creates a structural strength similar to that of structural posts. Combining these properties with other structural columns where needed ensures the SIPOD products are earthquake rated, high strength, long lasting and anti cracking.

4. **Waterproof**
   The SIPOD panel and block building products are very resistant to water penetration, which enables you to use the products be in wet areas such as bathrooms, laundry’s and kitchens.
   Our material design for water proofing dramatically reduces the issues related to rising damp and water absorption.

5. **Non-flammable**
   In the development of the SIPOD products we have added ingredients to our mixture design for flame retardant properties to ensure our products are non flammable. For example the recycled FLY ASH ingredient works as a fire proofing property.
   The SIPOD products can be used as fire walls or floors and areas where fire are a concern or a requirement.
6. **Soundproof**
   The eco core panels structure air gap creates a fantastic sound dissipating function and sound absorbing design. To achieve a higher sound proofing rating we can add additional sound proofing materials inside the products, such as coconut husk, hemp or rockwool or very high rated sound proofing materials that are specified prior to manufacturing.
7. **Insulation for heat and cooling**
   The hollowcore structure and composition allows a brilliant insulation. The air gaps inside the panels provide insulation properties by preventing the transmission of heat. To achieve a much higher insulation rating we can add additional insulation proofing materials, such as coconut husk, hemp or rockwool prior to manufacturing.
8. **Easy Installation**
   For easy installation the SIPOD hollowcore products can be sawn, grinded and drilled on site for easy modification.
   The bonding properties of the surface are very effective when applying renders and coatings. Additionally, for quick and easy installation before and after construction all electrical cables, conduits and plumbing pipes can be threaded through the full length verticle cores of the panel. This will save many hours on site installing and future alterations where new cables or pipes will be needed.
   Additionally being so light weight means the SIPOD products can be handled easily by two men and finally with the innovative and well thought through design means the installation process is simple and easy for unskilled labour on site to guarantee minimal errors on site installations.

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SIPOD Building Systems

WHERE TO APPLY SIPOD PRODUCTS?

SIPOD products are ideal for load-bearing and non-load bearing applications. In addition, SIPOD products are suitable for various types of buildings such as:

- **Residential Units**
- **Commercial Units**
- **Hospitals**
- **Factories**
- **Schools / Universities**
- **Hotels**
- **Shopping Malls**
- **Public Transport Intersection Buildings**

SUSTAINABILITY

SIPOD Panels are comprised of sustainable materials and contain mainly recycled materials. It provides long life span and is also recyclable, making it an exceptionally green building material.

Design

SIPOD products are manufactured in standard sizes for ease of installation and compliance to meet most international building standards around the world

Manufacturing & Delivery

SIPOD product production incorporates recycled material and employs strict waste minimization scheme while the transport fleets use less fuel (energy) to deliver goods to job sites.

Construction

SIPOD products have better dimensional tolerances, can be cut easily and accurately. Consequently, superior finishing on completed walls meeting any building code requirement can be achieved. Available in sizes larger than conventional bricks/ blocks, SIPOD products can be erected up to 8 times faster than brick wall.

Use

SIPOD products are not only lightweight technology but also provide high-performance features such as thermal comfort, energy saving, high-impact, water & fire resistance.

End of Life

SIPOD products are fully applicable for recycling to create new construction materials. Buildings made of SIPOD products can be altered easily according to specifications to avoid the hassle of demolishing & rebuilding.

SIPOD
ECO CORE PANEL

Main Performances

- 1-4 hours Fire Rating — 1-4
- Lightweight: 42/m2 for 75mm panel — 42kg
- Fast Installation: 60-80m2/ day/ 2 workers — 80m2
- Save up to 30% of the total cost — 30%
- Sound Insulation up to 51dB — 51dB
- 80% Energy Saving and Heat Insulation — 80%
- No Asbestos Green Building Material — No Asbestos
- 22% Water Absorption — 22%

Lower the Total Cost

As SIPOD eco core panel is lightweight, It can reduce the cost on the labor, foundation, structure, lintel beams and stiffener for the building, as well as the transportation cost.

It's fast installation, so it can significantly shorten the construction period and project management cost. Moreover, the surface is smooth, so no need for plastering work after panel installation, skim coat directly and then other decoration.

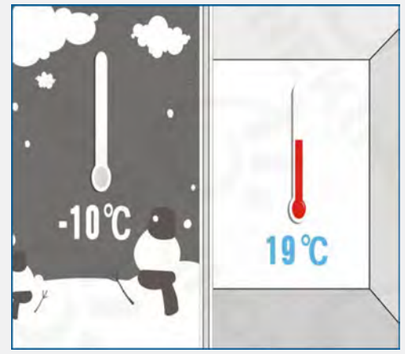
Therefore the overall project cost will be reduced to 30%.

Heat Insulation and EnergySaving

Thermal conductivity for SIPOD eco core is 0.17w/m°k, while brick/concrete walls is 0.66w/m°k.

According to a customer test, for the house built by SIPOD eco core panel, electricity consumption is about 2 kWh per day.

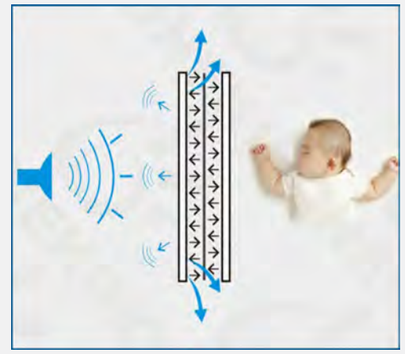
While for brick/concrete house, it is about 10 kWh per day, which means we can save up to 80% energy.



Sound Insulation

SIPOD eco core adopts hollow core structure design, as the air is the best medium of sound and thermal insulation, and it shows great efficiency in insulating noise.

For 100mm panel, the sound insulation is 39 dB, while it can reach up to 51dB for structure with two layers of 90mm panel with 50mm rock wool in the middle.



Green Building Material

The raw materials for our panel are green materials, according to national environmental test, it's without asbestos and no radio-activity, and also it does not contain formaldehyde, meanwhile it's free of heavy metals and other harmful substances.

It does not produce any harmful gases and toxic smoke in the event of fire. Moreover, it's insect-resistant and resistant to growth of mold and mildew as an organic material.

Pre cut wall ECO CORE panels

Applications:

- General internal & external walls
- Party, compartment & separating walls
- Acoustic & fire-rated walls

Working dimension:
Length x Height (mm)

Panels are available in
600 x 400, 600 x 600, 600 x 1200

SIPOD Pre cut wall panels are specifically manufactured up to 6 times larger than standard blocks. Construction output will significantly improve due to the block size, coupled with ease of assembly as blocks can easily be aligned.

Packaging

Length x Height (mm)	Thickness (mm)	Quantity per pallet	Coverage per pallet m²	| m³	Weights (kg)
600 x 400	100	90	21.6	2.2	15.8
	125	72	17.3	2.2	19.8
	150	80	19.2	2.9	23.8
	200	42	10.1	2	31.7
600 x 600	100	60	21.6	2.2	23.8
	125	48	17.3	2.2	29.7
	150	40	14.4	2.2	35.6
	200	28	10.1	2	47.5
600 x 1200	75	40	28.8	2.2	37.8
	100	30	21.6	2.2	50.4

Note :
1. The above information may subject to change.
2. Do not use the above information for calculating the transportation weight and volume.

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Interlocking ECO CORE Panels

Applications:

- General internal & external walls
- Party, compartment & separating walls
- Acoustic & fire-rated walls

Working dimension:
Length x Height (mm)

Panels are available in
600 x 200

Construction gets easier and neater with the introduction of SIPOD Interlocking panels. Block edges are profiled with tongue and grove interlocking joint system that does not only make wall construction much easier but also produce a more stable wall.

Packaging

Length x Height (mm)	Thickness (mm)	Quantity per pallet	Coverage per pallet m²	| m³	Weights (kg)
600 x 200	150	120	14.4	2.2	12
	200	84	10.1	2	16

Note :
1. The above information may subject to change.
2. Do not use the above information for calculating the transportation weight and volume.

BEFORE

AFTER

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SPECIFICATION

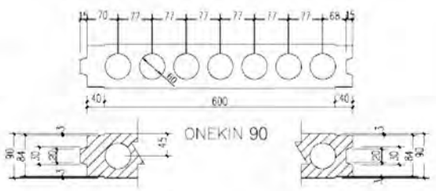
Length:
2200mm-6000mm

Thickness:
75mm / 90mm /100mm / 120mm /150mm /200mm

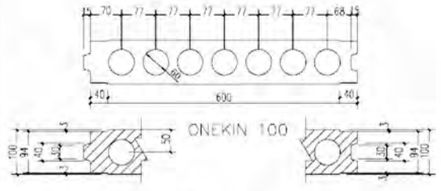
Width:
600mm

Standard Size:
2800mmX600mm /2900mmX600mm

Sectional Drawing

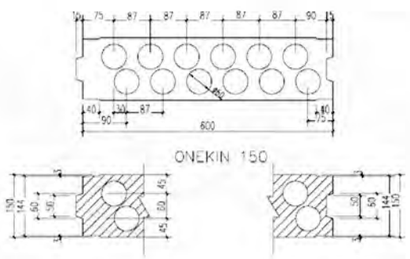


90mm

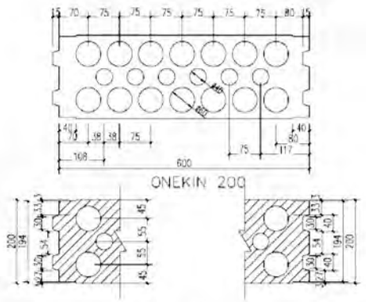


100mm

120mm



150mm



200mm

TECHNICAL DATA

SINGAPORE TUV TEST DATA (THICKNESS: 100mm)

Item No.	Testing Standard	Testing Item	Result
1	BS 476 Part 22:1987	fireproof	132 min
2	ASTM E413-04	Sound insulation	36dB
3	BS EN 772-1:2000	compressive strength	5.56 Mpa
4	CT-21752/THC	thermal conductivity	0.1739 w/m°k
5	CT-21752/THC	thermal resistance	0.5712 m2°K/W
6	BS 5234: Part 2:1992 or SS 492:2001	stiffness	passed
7	BS 5234: Part 2:1992 or SS 492:2001	surface damage by small hard body impact	tested
8	BS 5234: Part 2:1992 or SS 492:2001	surface damage by small soft body impact	passed
9	BS 5234: Part 2:1992 or SS 492:2001	perforation by small hard body impact	passed
10	BS 5234: Part 2:1992 or SS 492:2001	resistance to structural damage by large soft body	passed
11	BS 5234: Part 2:1992 or SS 492:2001	door slamming	passed
12	BS 5234: Part 2:1992 or SS 492:2001	crowd pressure	3 Kn/m
13	BS 5234: Part 2:1992 or SS 492:2001	light weight anchorage-pull out	100N
14	BS 5234: Part 2:1992 or SS 492:2001	light weight anchorage-pull down	250N
15	BS 5234: Part 2:1992 or SS 492:2001	heavy weight anchorage-wash basin	1500N
16	BS 5234: Part 2:1992 or SS 492:2001	heavy weight anchorage-wash cupboard	4000N

SIPOD GREEN PANEL ASTM TEST DATA (THICKNESS: 90mm)

Item No.	Testing Standard	Testing Item	Result
1	ASTM C39/C39M-12a	compressive strength	4.4 Mpa
2	ASTM C1609/C1609M-12	flexural strength	0.492 Mpa
3	GB/T 9978.8-2008	fireproof	180 minutes
4	GB 50121-2005	sound insulation	51dBv

Note: for more international test report, please contact our sales

SIPOD Panel Range

Fireproof Grade A

SIPOD eco panel is a non-combustible building material, it is non-combustible at 800°C, and remains flameless at 1,200°C.

The fire endurance can reach 4 hours in accordance with Chinese National Standard (GB/T 9978.8-2008). Also per TUV standards (BS 476:Part 22:1987), fire rated 132 minutes for 100mm SIPOD eco core panel.

SIPOD TUV Fire Resistance Test

BS 476: Part 22: 1987---Determination of the fire resistance of Non-load bearing element of construction partition

TEST REPORT

The unexposed surface of the specimen during the test

The unexposed surface of the specimen after the test

The performance of the specimen was judged against the criteria for insulation and integrity as specified in Clause 5 of BS 476: Part 22:1987, for a full insulated partition system, and the results obtained were as follows:

Insulation	Integrity
132 minutes, no failure	132 minutes, no failure

Lightweight

The weight is only 42/m2 for 75mm while the weight for the cement board is about 120-140 kg/m2. As a result, it can lower structural load, reducing oversized foundation, the linter beams and stiffener etc.

Easy and Fast Installation

The lightweight panel with tongue and groove design enables 5-8 times faster installation compared with that of cement, or bricks.

The panels can be easily sawn, cut, drilled and taped. Two skilled workers can install about 60-80sqms per day.

SIPOD Panel Range

SIPOD ECO CORE **PANELS**

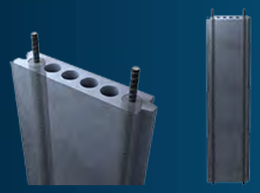
Building with SIPOD eco core panels is simple, efficient and cost effective. SIPOD's wide range of eco core panel sizes bring every construction smart saving of time and money.

SIPOD eco core panels also contributes to the building's safety as fire protection wall and floor. Fire test according to current standards have proven that SIPOD eco core panels can withstand a fire up to 4 hours. (Depends on thickness of panel)

Not only that, each panel is also reinforced with corrosion-protected, internal steel/ basalt rods and basalt fibers. SIPOD Panels are available up to 6m in length.

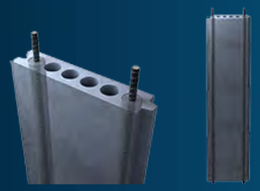
Wall Panel Summary

Product	Length (mm)	Height (mm)	Thickness (mm)	General Usage
Wall Panel	600 - 6000	600	75, 100, 125, 150, 175, 200.	All wall panels are applicable for infill walls & load-bearing walls.



Roof Panel Summary

Product	Length (mm)	Width (mm)	Thickness (mm)
Floor Panel	600 - 6000	600	75, 100, 125, 150, 175, 200.



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Wall & Roof Panels

Applications:

- Wall panels for residential & non-residential buildings

Working dimension:

Wall & roof panels are available from 600 - 6000mm length with the height at 600mm.
Thickness from 75 - 200mm.

SIPOD reinforced eco core wall panels are available in various edge profiles such as standard square, chamfered, tongue and
groove or a combination of any of these edge profiles. Panel installation incorporates special brackets secured to
structural members such as beams/ columns/ slabs to
provide wall lateral stability.

Eco core wall panels are typically used in residential buildings & commercial buildings, such as hospitals, universities,
schools, factories, warehouses, shopping malls, e.t.c.

Eco core panels can be installed onto buildings of reinforced concrete or steel structure.

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SIPOD ECO CORE Floor Panel

Applications:

- Floor panels for residential & non-residential buildings

Working dimension:
Length x Height (mm)

Floor panels are available from 600 - 6000mm length with the width at 600mm.
Thickness from 75mm - 200mm.

SIPOD Floor Panels are rebated at the long edges. These rebates form a channel for the purpose of bonding one panel to another, providing virtually seamless floor base ready for rendering.

Available in standard thickness of 75mm to 200mm, SIPOD Floor Panels are designed to cater for loadings of various floor uses. Typically, floor live load (uniformly distributed load) for residential units is 1.5kN/m^2. Generally, the load bearing capacity of these panels can be evaluated based on the structure spacing supporting the panels.

BEFORE

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SIPOD ECO CORE LINTEL

SIPOD Lintels are reinforced elements similar to panels. They are used as support over windows, doorways and other openings.

Lintels are available in standard thickness of 75mm, 100mm, 125mm, 150mm and 200m and lengths up to 2,700mm.

Refer to lintel table for standard sizes. Please contact SIPOD Technical Department on information related to allowable working load.

Lintels are also used as spreaders under the end supports of reinforced concrete beams to distribute high bearing stresses into the supporting wall.

*to strengthen the lintels we can supply core filled lintels.

Lintel Summary

Window Opening Width (mm)	Lintel Length (mm)	Lintel Height (mm)	Lintel Thickness (mm)
900	1,200	300	75, 100, 125, 150, 200
1,200	1,600	300	75, 100, 125, 150, 200
1,600	1,900	300	75, 100, 125, 150, 200
1,800	2,200	300	75, 100, 125, 150, 200
2,100	2,700	300	75, 100, 125, 150, 200

Pre Installed Window Panels

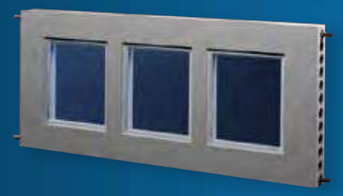
To save time and money on-site the SIPOD pre-installed window panels are a fantastic building solution.

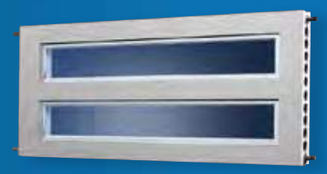
The SIPOD pre installed window panels can be supplied with fixed windows. Louvered windows, sliding windows etc. Select any type of window for us to pre-install into the panels.
Window glazing can be as per your specificaions for single, double or triple glaze or even argon gas filled, simply specify your requirements.

600 mm Panels - (1500mm- 3000 mm long)

All windows have been sealed for waterproofing.

1200 mm Panels (1500 mm - 3000 mm Long)





All windows have been sealed for waterproofing.

Pre Installed Door Panels

SIPOD 1200mm wide panels can be supplied with pre-installed doors for internal or external use. All doors are pre hung with rebates, locks, catches and seals full completed to save time on site.

Pre- installed Window & Door Wells

SIPOD Window & Door Panels have been designed to improve building with panels and reducing time on site.

* See the SIPOD pre-installed window and door wall example

Pre-installed electrical & plumbing panels

SMART PRE-WIRED & PRE-PLUMBED SIPOD PANELS are pre-wired AND/ OR pre-installed with conduits for power, data, audio, video & telecommunications cables and pre plumbed for all types of water services.
The pre-installation of the electrical & plumbing services into the SIPOD panels makes for a much quicker and simpler installation on site due to the fact that all conduits, cables and plumbing pipes are already pre-installed into the panels at the factory. Therefore, the trades people on site do not need to install pipe-works, conduits, or pull through cables. This reduces the total overall costs of installation by minimising the use of expensive professional tradespeople onsite, additionally this guarantees good quality, factory-controlled cable and conduit installations to high quality standards and finish.

Reduced mess onsite

With the pre-installed conduits and cables there is a huge reduction of onsite messy chasing of walls, especially in dust or water sensitive areas where messy installations is a concern such as existing houses or offices where there are people living or working in.

Increased safety on site

By using the SIPOD pre-wired or pre-plumbed panels there are also massive benefits from a safety and occupational and safety aspect. With the minimal use of power tools for cutting and chasing on site, this will definitely minimise the potential for any power tool use accidents, additionally there will be a massive reduction in dust production on site which will minimise any potential lung related injuries. Also with all panels being pre-wired this will reduce potential electrocution's onsite.
So overall there are many safety benefits onsite by using the SIPOD PRE-WIRED & PRE-PLUMBED panels.

Quality material specifications.

By having the pre-wiring and pre-plumbing in the factory is that this facility allows the end user to be able to have the panels pre-installed with the materials specified for the project by the clients, engineers or architects. Simply specify and select any electrical and plumbing material types you require for the project and these specifications will be followed perfectly.

For example:

- halogen-free material, which is suitable for installation in public buildings, schools, kindergartens, hospitals, hotels, theatres, cinemas, museums, stadiums, arenas, shopping centre's, airports, railway terminals, offices buildings.

Retro fitted switchboards.

There are also massive benefits of factory pre-wiring by having Retro-fitted switchboard panels. The SIPOD retro-fitted panels can also be supplied with switchboards for electrical, data and communications, fire, basically any type of wired panels fully pre-wired and installed for simple and very fast installation on site.

Advantages of the SIPOD pre-wired & pre-plumbed panels:

- Time saving (Electricians and plumber no longer need to install conduits, pull through cables, etc on site),
- Cost saving (Less high cost tradesman hourly rates required for works),
- Guaranteed high quality workmanship of the installation of cable and conduits,
- Reduced chasing, plastering and planning onsite with trades,
- Huge reductions in logistics and planning onsite with trades,
- Unskilled labour can prebuild all walls with electrical and plumbing already installed,
- Huge reduction in messy onsite works,
- Increased safety reductions onsite with little use of power tools,
- Reduction of loss OR theft of materials onsite.

ELECTRICAL PANELS

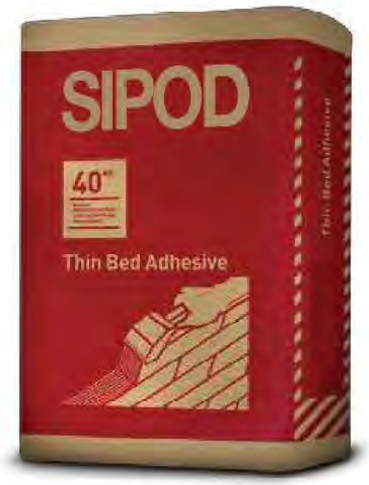
*light switches & power points panel

*electrical switchboard panel

Pre-plumbed and fitted bathroom wall

Retro fitted plumbing panels can be supplied with all your taps, shower heads, sink and even toilets fitted off ready for installation on site.

SIPOD
THIN BED ADHESIVE



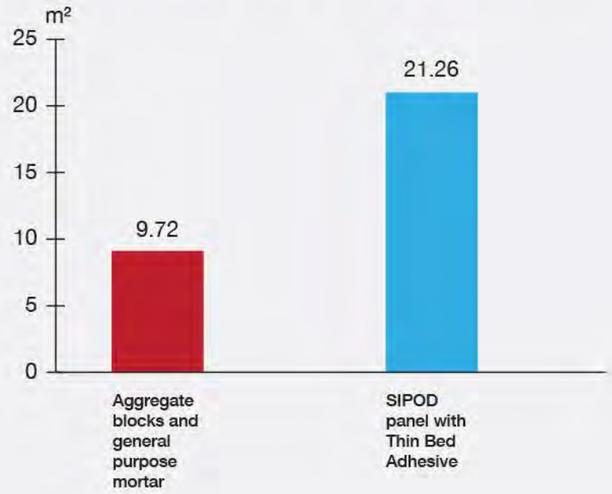
SIPOD Thin Bed Adhesive is a high-quality cementitious adhesive specially formulated and recommended for bonding SIPOD products such as blocks, panels and lintels. Backed by extensive testing and historical performance, the use of SIPOD adhesive ensures optimum performance of the completed assembly, including strength and fire rating.

Technical Data

Packaging	40kg bag
Colour	Light Grey / Off White
Mixing Ratio	13 - 14 liters of clean water / 40kg bag
Pot Life	1 - 2 hours
Open Time	15 - 30 minutes
Coverage	Approx. 20m² / 40kg bag for 100mm blockwork (Estimated based on 2mm thick bedding for 100mm blocks)
Min. Flexural Strength	0.44 MPa
Fire rating	Up to 4 hours when used with SIPOD Blocks
Fire Hazard	Non-flammable
Toxicity	Nil

Wall Laying Speed

Thin Bed Adhesive vs General Purpose Mortar (m²/ hour)



SIPOD
RENDER & SKIMCOAT

SIPOD Render is recommended for external rendering of an external wall, it can also be applied to wall where a thicker plastering is needed such as wall thickening for tiling purpose.

SIPOD Skim Coat Base & Skim Coat Finish are applied as a two-coat system and designed for internal wall applications to give a smooth finish.

Technical data

	Render	Skim Coat Base	Skim Coat Finish
Packaging	40kg bag	40kg bag	25kg bag
Colour	Grey	Grey	Grey
Mixing Ratio	7 - 8 litres water / 40kg bag	11 - 12 litres water / 40kg bag	11 -12 litres water / 25kg bag
Pot Life	1 hours	2 hours	3 hours
Coat Thickness	10 - 12mm	2 - 4mm	1 - 2mm
Coverage Approx.	1.6kg / m² / mm thickness 2.5m² / 40kg bag at 10mm thickness	1.4kg / m² / mm thickness 10m² / 40kg bag at 3mm thickness	1.2kg / m² / mm thickness 20m² / 25kg bag at 1mm thickness
Binder	OPC / Hydrated lime	OPC	OPC
Max Aggregate Size	Graded sand 2.5mm max	Graded limestone powder / sand 1.0mm	Limestone powder 0.5mm
Additives	Water soluble additives to improve workability, water retention, durability and adhesion.	Water soluble polymers to improve workability, water retention, durability and adhesion.	Water soluble polymers to improve workability, water retention, durability and adhesion.
Fire Hazard	Non-flammable	Non-flammable	Non-flammable
Toxicity	Nil	Nil	Nil

Note : Actual coverage may vary depending on the straightness of the wall.

SIPOD
Tools & Accessories

Tools & accessories marked with ✎ are available from SIPOD.

✎ 150mm
Notched Trowel

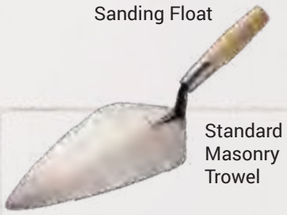
✎ 100mm
Notched Trowel

Rubber Mallet

✎ Wall Trencher

Hand Drill

Sanding Float



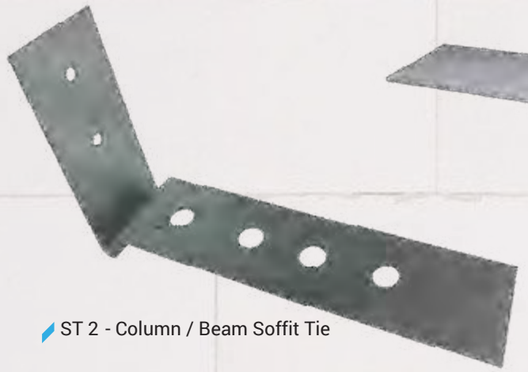
Standard
Masonry
Trowel

✎ Tungsten Carbide
Tipped Saw

✎ Stirrer

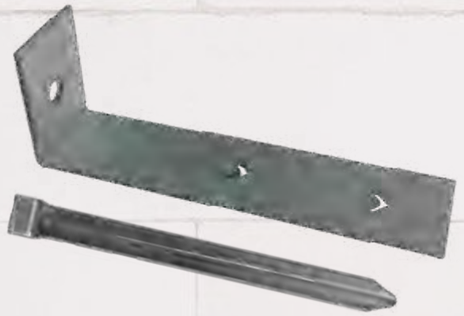
Spirit Level

Mixing Container

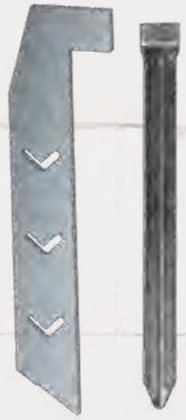


✎ ST 2 - Column / Beam Soffit Tie

✎ ST 1 - Control Joint Tie



✎ ST 8 - Vertical Wall Panel Tie



✎ ST 6 - Horizontal
Wall Panel Tie

✎ Fiber Mesh
150mm x 50m

Anchor Selections

Light Duty	Medium Duty	Heavy Duty
1) Nylon Anchor 8mm x 50mm	1) Nylon Anchor 10mm x 50mm / 60mm / 100mm	1) Injection Mortar
		
Approx. load up to 10 kg	Approx. load up to 50 kg	Approx. load up to 150 kg
Applications: • Coat Hook • Light Fitting • Small Mirror • Painting • on/off Switch • Meter Box	Applications: • LCD/ Plasma TV • Shelf • Satelite Disc • Meter Box • Towel Rail • Curtain Rod/ Rail • Kitchen Cabinets • Window Frame • Air-cond Compressor • Door Frame • Clothes Dryer • Sink/ Urinal/ Basin • Pipe Bracket	Applications: • Heavy DB • Fire Hose Reel • Signboard • Sink/ Urinal/ Basin • Cantilever Support • Awning/ Window Shade

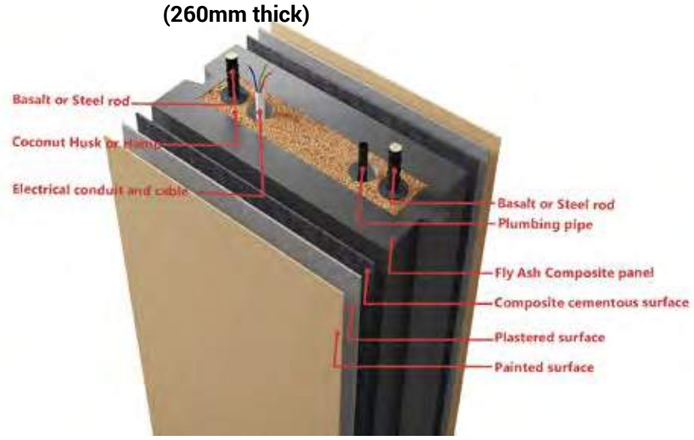
*Refer to SIPOD Technical Department for actual recommended anchor capacity.

SIPOD
RANGE OF PANELS

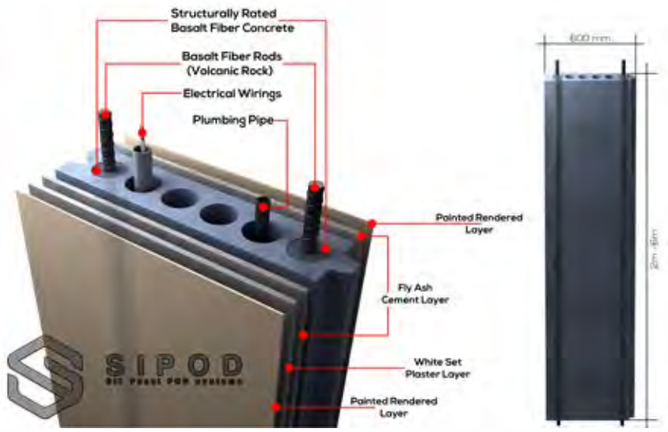
INTERNAL STEEL FRAME ALC PANEL
(universal floor and wall structural panel)

SLOTTED PANEL
(light weight internal wall partition panel)

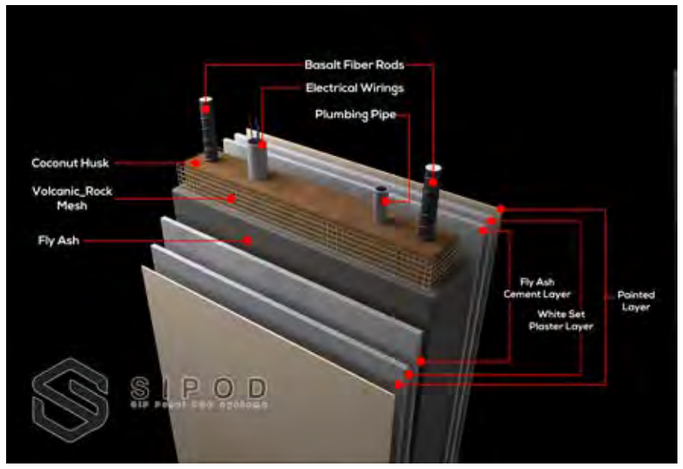
ALL TERAIN PANEL
(260mm thick)



EXTERNAL SIPOD STEEL FRAME
(Extra heavy duty panel)



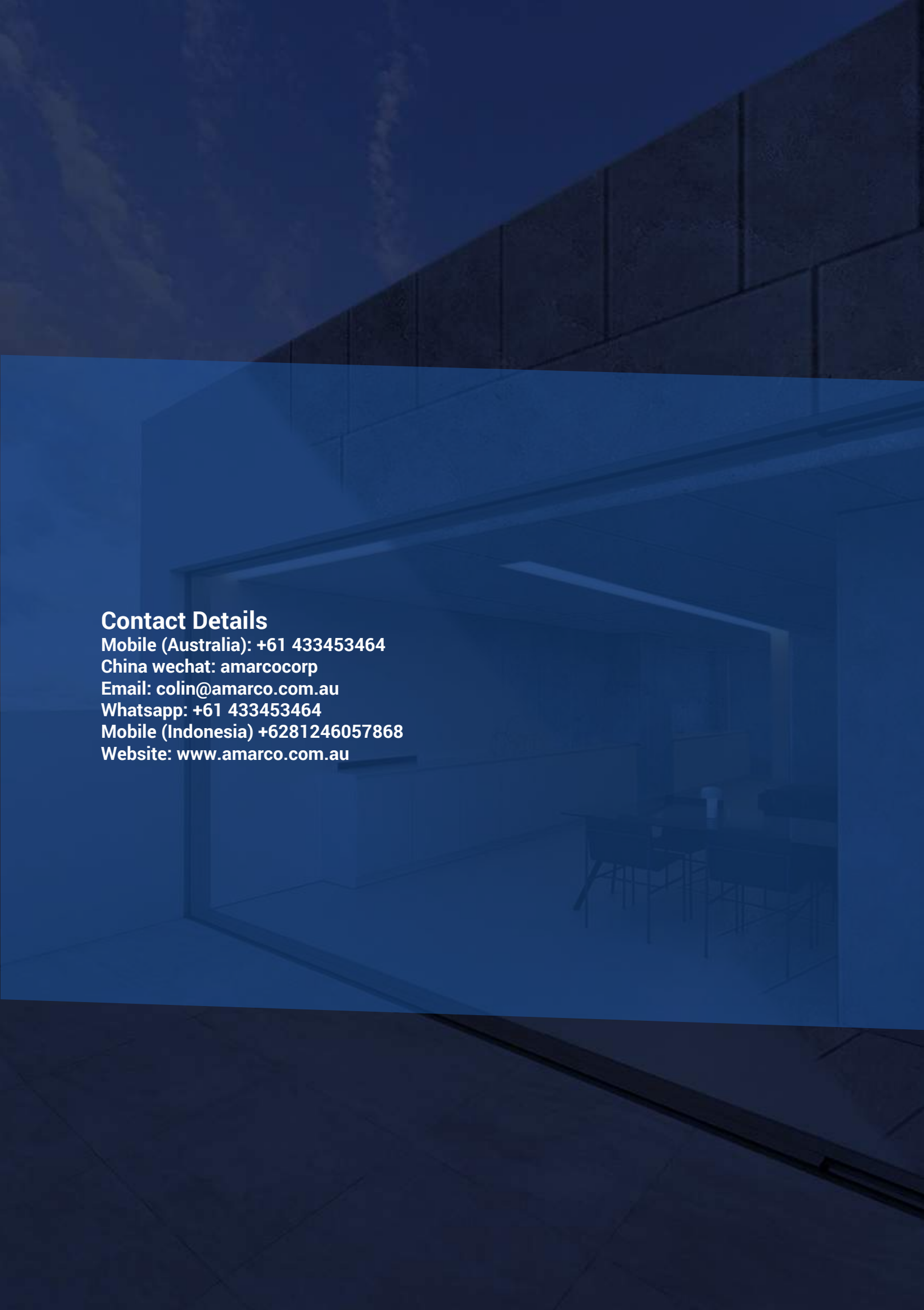
ECO CORE PANEL
(Universal pre wired, pre plumbed floor and wall panel)



HUSK/HEMP PANEL
(fully sustainable wall panel)

FULL WALL PANEL
(completely finished walls up to 9m long)

SIPOD All-Terain Panel Details



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