

VODAPRUF

ALC BLOCK

(MODEL- SERIES: VPANEL, DENSITY 900KG/M³, 3MPA)



“PICTURE TAKEN IN OUR LOCAL PRODUCTION FACTORY SITUATED IN MIRI, SARAWAK”



PSB Singapore
Certified



022-144-3306
“Eco-Friendly Building Material”
(In accordance to SEC Green Label
Category 22: Cement and Concrete Version 2)



No. Fail: JBPM/IP/RNP:700-7/2/
25-50 (7)
No.Siri: BB/WS/2274/2017 (P2)



US EPA Method
1311: 1992,



CERTIFICATE
N°CN/101118

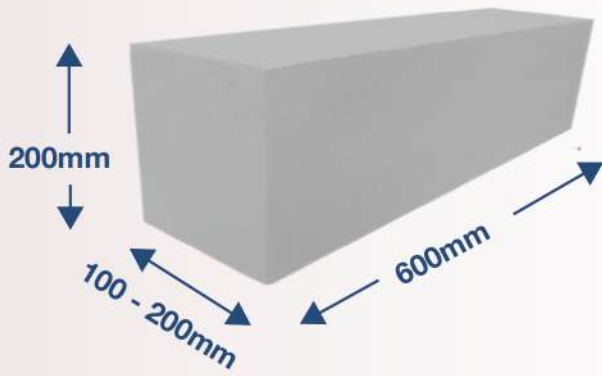


Kategori: C
Category: C

No. Siri: 7917
Serial No.: 7917

Test Report: 7191190389-MEC18/ADD-IHN , 7191153877-MEC17-LJH , 7191151364-MEC17/03 - YX , 7191151364-MEC17/02-EMK , EN8500026712/LWW

Test To: ASTM E90 - 04 , BS EN 772 - 11:2011 , BS 476: Part 22: 1987 , BS 476: Part 4: 1970 , BS 5234: Part 2: 1992



Property	Value
Model	vPanel 100
Length & Height	600 x 200mm
Thickness	100mm, 150mm, 200mm
Dimensions Tolerance	± 2mm
Dry Density	730 kg / m
Working Density	910 kg / m
Compressive Strength	3.0 mpa
Thermal Conductivity, K	0.24 w / mk

Standard Normal Length & Height (mm)	Standard Normal Thickness (mm)	M ² per pallet	No. of pieces per pallet
600x200	100	21.6	180
600x200	150	14.4	120
600x200	200	10.1	84

Benefits of Using VODAPRUF ALC Block



Cost Saving

With its lighter density and larger dimensions, it can reduce building design weight & faster construction for early completion of the project.



Durability

It will not warp, rot, corrode, rust or otherwise decompose. VODAPRUF ALC Block has been used in many countries around the world for over 60 years.



Energy Saving

Building constructed with VODAPRUF ALC Block can significantly reduce heat and lower energy costs because it has a greater thermal resistance.



Fire Resistant

100mm thickness achieved 4 hours fire rating which is the highest rating possible & is far superior compared to concrete or brickwork.



Noise Resistant

Solid wall construction means less noise from outside and lower room-to-room noise & therefore a much quieter building.



Environmental Friendly

The manufacturing process produces no hazardous by-products and only uses raw materials that are abundant in supply.



Versatile

VODAPRUF ALC Block can be used for mostly all walling in both load-bearing and non-load-bearing applications.



Speed & Workability

Larger & lighter products mean reduced labour requirements & faster installation rates.

BOMBA CERTIFICATE



CIDB MALAYSIA

PENILAIAN PENGELUAR BERSTATUS IBS
ASSESSMENT OF IBS STATUS MANUFACTURER (AIS)

No. Siri: **7917**
Serial No.:

Adalah dengan ini disahkan bahawa:
It is hereby verified that:

VODAPRUF SDN BHD
(1161914-H)
NO. 581
JALAN IDAMAN 3/7
81400 SENAI
JOHOR DARUL TAKZIM

Merupakan:
Is:
PENGELUAR

Lokasi Kilang:
Factory Location:
**K16, LOT 32742, BATU 17
JALAN JOHOR BAHRU – AIR HITAM
81400 SALENG
JOHOR DARUL TAKZIM**

No. Laporan:
Report No.:
FJH271217IBSC0697

Tarikh Dikeluarkan:
Issue Date:
12 JANUARI 2018

Sah Sehingga:
Valid Until:
11 JANUARI 2019

Pusat IBS, CIDB Malaysia
Gedai Kompaun IBS
Lor 8, Jalan Cham Sira Lim
55200 Kuala Lumpur,
Malaysia
TEL: 03-92819099
FAX: 03-92819870
Laman Web:
ibs.cidb.gov.my

Sebagai syarikat Status IBS yang mengeluarkan produk IBS berikut:
As an IBS status company that manufactures the following IBS components:

**SISTEM BERINOVATIF:
- LIGHTWEIGHT PANEL**

Kategori:
Category: **C**


DATUK IR. ELIAS ISMAIL
b.p. Ketua Eksekutif
CIDB Malaysia

Pendaftaran ini hendaklah diperbaharui seawal-lewatnya 30 hari sebelum tarikh tamat tempoh.
This registration shall be renewed within 30 days before expiration date.

No. Fail: **JBPMIP/RNP:700-7/2/25-50 (7)**
(PEMBAHARUAN KEDUA)

SIJIL PEPASANGAN KESELAMATAN KEBAKARAN

APPROVAL CERTIFICATE

Jabatan Bomba dan Penyelamat Malaysia
dengan ini memperakukan
Fire and Rescue Department of Malaysia
hereby certify

WALL SYSTEM
Berdasarkan Piawaian
Complying with
BS 476:PART 22:1987

Syarikat Berdaftar
Registered company
VODAPRUF SDN BHD (1161914-H)
581 Jalan Idaman 3/7,
Taman Perindustrian Senai,
81400 Senai,
Johor DT.

Tempoh sah perakuan: **17/07/2019 hingga 16/07/2020**


(DATUK YUSOF BIN SIDEK)
Pegawai
Bahagian Perancangan dan Penyelidikan,
b.p. Ketua Pengarah
Jabatan Bomba dan Penyelamat Malaysia.

Tarikh: **30** September 2019

** Peringatan:
Sila patuhi sepenuhnya syarat-syarat dan had kegunaan seperti dalam Lampiran A1





No. Fail: **JBPMIP/RNP:700-7/2/25-50 (7)**
No. Siri: **BB/WS/2274/2017 (P2)**

Jenis Bahan Binaan: **WALL PANEL / BLOCK WALL
2 JAM (NON-LOADBEARING)**

Jenama & Spesifikasi: **VODAPRUF
(MODEL: vPanel, Thickness 100mm)**

Nama & Alamat Pengeluar: **VODAPRUF SDN BHD**


Tahap Rintangan Api: **INTEGRITY 260 MINIT & INSULATION 222 MINIT
Average Strength: 5.23N/mm²**

No. Laporan Ujian/Tarikh: **TUV SUD PSB NO.7191153877-MEC17-LJH (26/04/2016) &
7382016566-CEG17/01 (17/01/2017)**

Skim Pansjilan Barangan: **-----**

Had Kegunaan: **TIDAK DIBENARKAN SEBAGAI 'PARTY WALL'.
HENDAKLAH MEMATUHI SPESIFIKASI UJIAN, UGBL 1984
SERTA SYARAT-SYARAT TAMBAHAN SEPERTI DI
LAMPIRAN A2 & A3.**

Tempoh sah perakuan: **17/07/2019 hingga 16/07/2020**

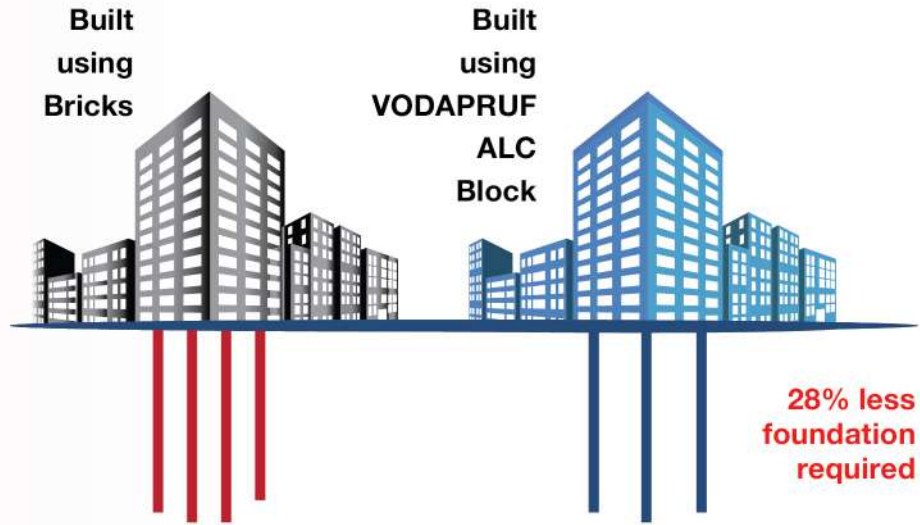


LAMPIRAN A1

COST-SAVING BENEFITS

Save up to 28% of
Foundation Cost

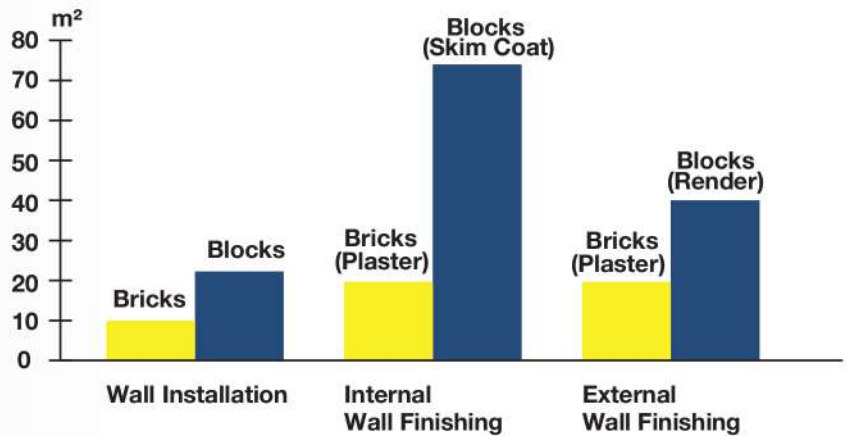
Brick vs VODAPRUF ALC Block



VODAPRUF ALC Block 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. VODAPRUF ALC Block products possess the durability characteristics similar to normal concrete or stone, yet with workability better than wood.

Wall Installation
Speed

VODAPRUF ALC Block vs Brick
(m² worker/day)



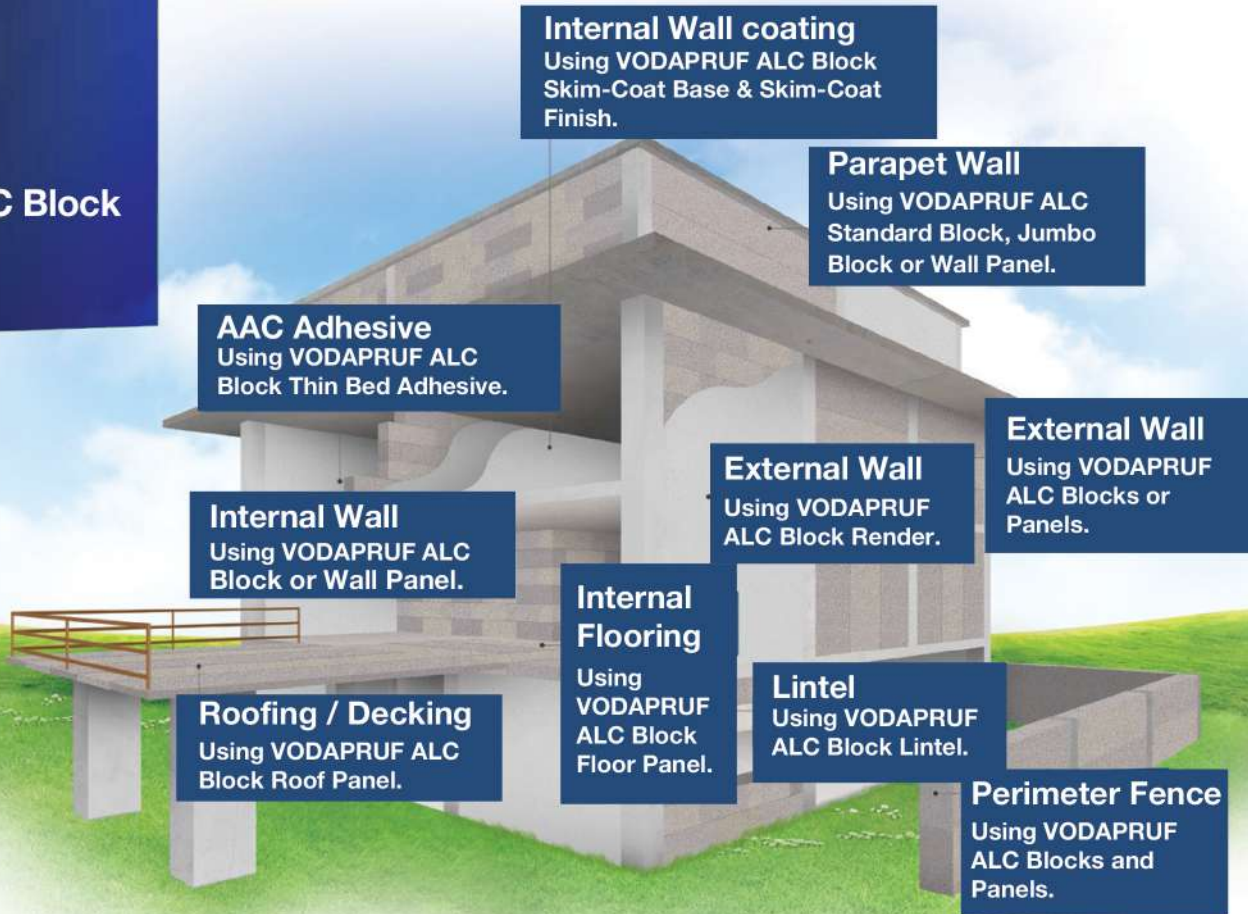
Thermal Control

Heat insulation 6 times superior
than day brick.



8" ALC Wall
Note : Building uses approximately 30% less energy for cooling and heating the interior air space.

WHERE TO APPLY VODAPRUF ALC Block PRODUCTS?



Internal Wall coating
Using VODAPRUF ALC Block Skim-Coat Base & Skim-Coat Finish.

Parapet Wall
Using VODAPRUF ALC Standard Block, Jumbo Block or Wall Panel.

AAC Adhesive
Using VODAPRUF ALC Block Thin Bed Adhesive.

External Wall
Using VODAPRUF ALC Blocks or Panels.

Internal Wall
Using VODAPRUF ALC Block or Wall Panel.

External Wall
Using VODAPRUF ALC Block Render.

Internal Flooring
Using VODAPRUF ALC Block Floor Panel.

Lintel
Using VODAPRUF ALC Block Lintel.

Roofing / Decking
Using VODAPRUF ALC Block Roof Panel.

Perimeter Fence
Using VODAPRUF ALC Blocks and Panels.

VODAPRUF ALC Block is ideal for load-bearing and non-load bearing applications. In addition, VODAPRUF ALC Block 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

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: <ul style="list-style-type: none"> • Coat Hooks • Light Fittings • Small Mirrors • Paintings / pictures • Window frames • Meter boxes • Towel rails 	Applications: <ul style="list-style-type: none"> • Heavy curtain rods • Domes • Large mirrors • Lamps & Lightings • Shelves • Light cupboards 	Applications: <ul style="list-style-type: none"> • Clothes dryers • Hold rails • Air conditioner • Heavy cupboards

ADVANTAGES OF VODAPRUF ALC Block

REASON NO 1 Strong & Durable



- Rated as “Severe Duty” grade to BS 5234
- Proven durability under extreme different climatic conditions

- Australia / South Africa > 20 years
- Europe > 80 years
- Middle East > 40 years
- USA > 20 years
- Asia > 20 years

ADVANTAGES OF VODAPRUF ALC Block

REASON NO 2 Excellent Workability



- Can be sawn, drilled, just like wood
- It facilitates fitting of plumbing, electrical and also wall fittings

ADVANTAGES OF VODAPRUF ALC Block

REASON NO 3 Speedy Construction



- More than 2 times faster compared to conventional wall

	VODAPRUF ALC Block	Brick
Wall Installation Rate	20-22m ² /man day (1 VODAPRUF ALC Block)	10m ² /man day (=7 Bricks)
Thinner coatings on VODAPRUF ALC Block wall means faster application rates	55-76m ² /man day (3-5mm skim coat internally)	20m ² /man day (25mm plaster)
	42m ² /man day (12mm render externally)	20m ² /man day (25mm plaster)

ADVANTAGES OF VODAPRUF ALC Block

REASON NO 4 Environment Friendly



- Made from non-toxic materials
- Green Building Material- Low VOC, No Formaldehyde

ADVANTAGES OF VODAPRUF ALC Block

REASON NO 5 Superior Thermal Insulation



- Improve building operating cost
- Reduce cooling / heating cost by 30%

Heat Insulation Properties

System	Nominal Thickness	Thermal Insulation	Thermal Transmittance
AAC Block Wall	140mm	1.07m ² K/W	0.945W / m ² K
Brick Wall (Clay)	150mm	0.325m ² K/W	3.080W / m ² K

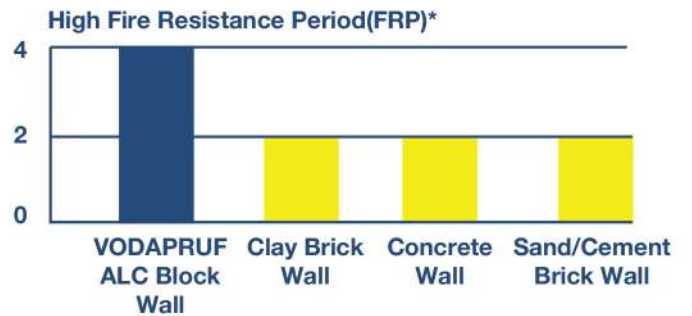
VODAPRUF ALC Block Wall is > 3 times more effective in reducing heat inflow

ADVANTAGES OF VODAPRUF ALC Block

REASON NO 6 Excellent Fire Rating



- Fire rating to BS 476 Part 22
-100mm up to 4 hours
- Best in its class



*Based on 100mm thick wall, excluding skim coat/ render.

ADVANTAGES OF VODAPRUF ALC Block

REASON NO 7 Good Sound Insulation



AAC HAS GOOD ACOUSTIC PERFORMANCE

VODAPRUF ALC BLOCK Thickness (mm)	100 NOTE 1	150 NOTE 2
STC/ Rw	38dB 50dB NOTE 3	56dB

VODAPRUF ALC Block wall systems were tested in conjunction with 6mm to 8mm thick skim coat on each side.
VODAPRUF ALC Block wall was tested in conjunction with 10mm thick ALC render on each side.

ADVANTAGES OF VODAPRUF ALC Block

REASON NO 8 Precise Dimension



- Thickness tolerance $\pm 2.0\text{mm}$
- Facilitate Compliance to QCLASSIC Performance Criteria

QCLASSIC - WALL SURFACE QUALITY



• Evenness of Surface

Tolerance - 3mm max. per 1200mm

• Right Angle

Tolerance - 4mm max.
per 300mm

ADVANTAGES OF VODAPRUF ALC Block

REASON NO 9 Lightweight



- Working Density 910kg/m
- Up to 2.5 times lighter than conventional concrete
- Easy to handle

SUBSTANTIAL REDUCTION OF BUILDING DEAD LOAD

Application	VODAPRUF ALC Block Wall	Brick Wall	Significance
Internal Wall	Thicknesss-110mm Weight- 90kg/m ² Component: <ul style="list-style-type: none">• VODAPRUF ALC Block 100mm• Skim coat (5mm both sides)	Thicknesss-150mm Weight- 288kg/m ² Component: <ul style="list-style-type: none">• Bricks 114mm• Plaster(18mm both sides)	60% reduction in dead load of internal wall
External Wall	Thicknesss-115mm Weight- 128kg/m ² Component: <ul style="list-style-type: none">• VODAPRUF ALC Block 100mm• Skim coat 5mm• Render 10mm	Thicknesss-150mm Weight- 288kg/m ² Component: <ul style="list-style-type: none">• Bricks 114mm• Plaster(13mm both sides)	55% reduction in dead load of external wall
Party Wall	Thicknesss-210mm Weight- 182kg/m ² Component: <ul style="list-style-type: none">• VODAPRUF ALC Block 200mm• Skim coat (5mm both sides)	Thicknesss-250mm Weight- 480kg/m ² Component: <ul style="list-style-type: none">• Bricks 225mm• Plaster(12.5mm both sides)	60% reduction in dead load of party wall

5D.1 Introduction

The purpose of this block installation guide is to serve as a reference for the installation of VODAPRUF ALC block to masons and those seeking experience in VODAPRUF ALC block construction. The tools below ensure proper execution and accuracy when installing VODAPRUF ALC block.

Installation tools:

1. Rubber mallet: for aligning and adjusting blocks
2. Torpedo level: for measuring level of blocks
3. Wooden sawback rasp: for leveling course
4. Tin-plated rasp: to smooth wall surface
5. Joint knife: to remove excess mortar
6. VODAPRUF ALC Block notched trowels: to lay mortar
7. VODAPRUF ALC Block thin-bed mortar: to adhere blocks
8. Mixing paddle: attach to power drill to mix mortar
9. Connectors: to fasten walls
10. Spade bit or forstner bit: for outlets and small openings
11. Coated deck screws: for securing forms, etc.



Other tools:

Mason's level (4' and/or 6')

Plastic bucket (square or oval)

Hand saw

VODAPRUF ALC Block square

VODAPRUF ALC Block band saw

Router

Safety equipment (Hard hat, gloves, goggles, dust mask, apron)

5D.2 General Installation Guidelines

- **Prior to commencement of construction make sure you are working with the latest approved set of construction documents including all revisions and addendums.**
- **Unload block using pallet forks. Consult an appropriate safety consultant or knowledgeable OSHA trainer for “rigging” or other safety considerations.**
- **Stored areas should be accessible to delivery trucks and convenient to material staging areas. If possible, drop-deliver the material right to the material staging areas.**
- **Storage material should always be stored away from other construction activities on a flat-grade area that is not susceptible to standing water, erosion or settling.**
- **Keep the material covered and packaged until ready for installation.**
- **Excessive handling may cause damage. Set delivery schedule to match the erection sequence.**
- **Chips and spalls can be repaired. All damaged surface areas may be repaired using a compatible VODAPRUF ALC Block patching compound.**
- **Stored or staged materials should always be set on flat, stable grade on pallets or dunnage.**
- **Observe and provide all necessary temporary support and bracing in addition to following all safety laws and requirements.**
- **Caution: Use safety gear: Hard hat, gloves, dust mask and goggles to avoid excessive inhalation of dust and protection of the eyes when handling VODAPRUF ALC Block.**

5D.3 Preparation

Before Installation of VODAPRUF ALC Block

1. Check Slab

- Before the slab is poured, check slab dimensions and reinforcement to comply with construction drawings. Ensure the pipes, drains and other penetrations through the slab have been located properly.
- The slab should be placed within a tolerance of +/- 3mm per 2000mm in order to maintain a straight and accurate first leveling course.
- Reinforced VODAPRUF ALC Block requires that vertical reinforcing bars are placed in accordance with the Engineer of Record structural construction documents. Vertical reinforcing is typically placed at all openings, such as doors, windows and louvers. Vertical reinforcing can be wet set or drilled and epoxied into the slab, with size and location according to the Engineer of Record structural construction documents.

2. Mark and Layout on the Slab

- After slab placement is complete, use a transit and chalk line to layout the position of the walls and openings (Verify all rough openings with window and door frame types prior to layout).
- Check the wall lines marked on the slab to locate the highest point with a laser level or level transit. At the on slab add 8 1/4" (7 7/8" for VODAPRUF ALC block and 3/8" for large grain heavy set mortar joint).
This will be the top of your leveling course. Use batten boards with string line pulled taught. This will be set at the height of the leveling course. At the same time, the line should be checked using a line level or laser.
- The first course must be set perfectly straight and level.

3. Mix Thin-bed Mortar and Prepare Large Grain Mortar for Base Course

- Use thin-bed mortar or a thinbed mortar that is code compliant and ALC specific.
- Prepare in a plastic bucket and add clean water. Follow directions on the bag. Mix thoroughly for a minimum of 5 minutes. Remix before application. The consistency should allow mortar to flow easily through a notched trowel, leaving the shape of the teeth in the mortar bed (mortar will have a toothpaste like consistency).



Figure 5D. 2: Mixing thin-bed mortar



Figure 5D.3: Applying VODAPRUF ALC Block thin-bed mortar to vertical joint with notched trowel

- Mortar workability time is 4 hours.
- Prepare large grain mortar in a separate bucket, following directions on the bag.

5D.4 Installation of VODAPRUF ALC Block

Laying the First Course

1. Start with Mock-up, then Set Corner

- First lay a mock-up of the first course. Then, start with setting corner blocks, and lay the first course over large grain mortar leveling bed (minimum thickness 3/8" maximum thickness 1").
- For the remaining first course of blocks, apply thin-bed mortar to the vertical joints using an appropriate notched trowel (the outside edges of the trowel should just fit over the block).
- Once the first course is placed, use a brush to clean the block surface before applying the ALC mortar.
- Thin bed mortar joints must be a minimum of 1/16" thick, and no more than 1/8".
- After installing each block, immediately check to make sure they are level and plumb. Any correction must be done within 5 minutes by tapping lightly with a rubber mallet.
- The leveling course should be placed and allowed to set prior to proceeding to the next course.



Figure 5D.4: Checking level and plumb, modify by tapping VODAPRUF ALC Block with rubber mallet

2. Cutting Blocks (Adjustments and Chases)

- Use an ALC hand saw or ALC band saw to cut blocks to specific lengths (adjustment pieces).
- A large square or framing square is useful in marking blocks for straight cuts.
- A wooden sawback rasp can be used to even out openings and leveling blocks.



Figure 5D.5: Cutting ALC with band saw

3. Utility Chases Using VODAPRUF ALC Cored-block in First Course

- When cutting in chases, do not exceed 1/3 the depth of the block on non load-bearing block and consult your Engineer of Record for depths both vertically and horizontally on load-bearing block (typically 1 1/4" maximum on an 8" block).
- In the case when the pipe diameter exceeds the maximum depth of chases, consult Engineer of Record for a solution.

4. Installing VODAPRUF ALC Cored-block for Vertical Reinforcing in First Course

- Use ALC cored-block to place vertical grouted reinforcing.
- If the vertical reinforcing was not wet set, locate and install by drilling, and epoxy as per the manufactures installation requirements.

5. Layout Control Joints in First Course

- The location of control joints should be specified in the Engineer of Records construction documents. Control joints are vertical joints taken through the full wall thickness and from bottom (first course) to top.
- The width of the control joints should be a minimum of 3/8" wide, but no more than 1/2" wide.
- Control joints shall be provided at a spacing of 3 times the wall height or at a maximum of 24' -0" on center unless otherwise noted by the Engineer of Record.

Laying Subsequent Courses

6. After the First Course has Set, Begin Laying Subsequent Courses

- For subsequent courses, use only Hebel ALC thin-bed mortar on all joints between VODAPRUF ALC block.
- When laying block to block, set backside of block down and then set butting face of block into position. Do not set block then slide into place.
- Use a brush to clean the block surface before mortar application.
- After block installation, remove spilled mortar using a joint knife. When using the knife, hold at an angle towards the block and scrape at a downward 45 degree angle. This will help avoid catching the blade in the joints.
- Overlapping of block minimum is 6" and should be kept consistent for a running bond.
- Check alignment and level after each unit installation to achieve a plumbed wall.
- Metal strip ties should be placed every two courses at:
 - Connection of secondary walls to main walls.
 - Connection of walls to columns.
 - Control joints.

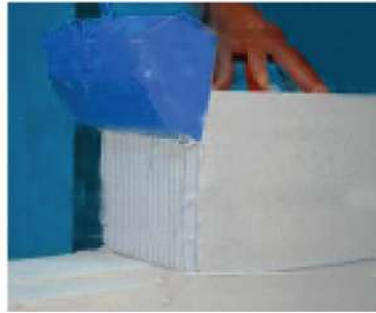


Figure 5D.6: Applying thin-bed mortar on all vertical joints



Figure 5D.7: Applying thin-bed mortar on horizontal joints



Figure 5D.8: Laying block by first setting backside down, then butting face of block is set into position



Figure 5D.9: Removing spilled mortar from joints



Figure 5D.10: Checking alignment and level of wall



Figure 5D.11: Connection of secondary wall to main wall

7. Installing VODAPRUF ALC Cored-block in Subsequent Layers for Vertical Dowels and Utilities

- **The cored openings on VODAPRUF ALC Block cored-blocks must be properly aligned when installing between courses.**
- **Ensure that vertical reinforcing bar from the slab overlaps with additional vertical reinforcing bar in the wall to comply with reinforcement requirements.**
- **See structural Engineer of Records construction documents for all lap splicing requirements.**



8. Control Joints in Subsequent Layers

- **Metal strips (connectors) folded at midpoint (V-shaped) should be set at every 2 courses to accommodate water proofing the joint.**
- **Coordinate all joint water proofing requirements with architectural construction documents.**

8. Utilities Installation After Walls are Built

- For electrical conduits and piping installation, cut a chase using an electrical router or a chasing tool.
- A power drill (drill bits) or router can be used to install electrical boxes. Use shallow receptacle boxes and junction boxes when possible.
- In the event additional depth is required in a load bearing wall, consult the Engineer of Record for acceptance or alternate solution.
- The use of ALC cored block is an acceptable practice for vertical chasing in conjunction with the Engineer of Records approval.
- After installation, use VODAPRUF ALC th in-bed mortar to fill in the exterior chases and VODAPRUF ALC block patch mortar to fill in the interior chases.



Figure 5D.13: Cutting chases into ALC wall

9. Surface Patching

- Use VODAPRUF ALC repair mortar to patch chips, breaks and other imperfections on the wall surface.
- VODAPRUF ALC repair mortar is prepared in a plastic bucket. Add water and mortar from the bag (see instructions on the bag) and mixed with a paddle using a power drill.
- Keep in mind repair mortar has a very short workability time. Mix minimum amounts at one time.
- Before application, clean the surface using a brush. Apply using a joint knife.
- After application, a sanding rasp is used to smooth the wall surface.

10. Fiber Glass Mesh

- The use of fiber glass mesh is recommended when crossing over discontinuous substrates, consult with finish supplier for additional information.

- **Fiber glass mesh can be installed directly over one layer of render (without nails) at patch locations if mortar is leaching.**
- **Once the fiber glass mesh is installed, the wall is ready for rendering or finish application.**

11 Finishes

- **VADAPRUF ALC Block walls can be finished with ALC specified stucco, acrylic texture coat, elastomeric finishes, cement based finishes, ceramic or clay tiles.**

12. Window and Door Installation

- **Windows can be installed directly to ALC depending on the finish of the exterior or buck strips may be used for fastening window fins (buck strips must be treated wood and can be installed with 3" coated deck screws).**
- **An adhesive substrate should be used when installing buck strips. Silicon caulk is acceptable to use against any clean ALC surface.**
- **Doors can be installed directly to ALC.**
- **In commercial applications, welded frames with grouted solid jambs and headers are recommended.**

WHY US?

1. In house manufacturing technology

- better dimension tolerance
- Quality product to BS EN
- Timely delivery

2. Technical support

- Customized design solutions
- On-site training
- Onsite demo

3. Local production in Miri, Piasau

- Low logistic cost
- Stock Availability

4. More than 18 test report & certification:

1. Non Combustible Test Report, BS 476 : Part 4
2. Compressive Strength Report, BS EN 12390-3:2009
3. Certificate of Conformity , COC Class 2
4. Certificate of Conformity , COC Class 1A
5. Fire Rating Report , BS 476: Part 22
6. Fire Rating Report with Lintel Stiffener , BS 476: Part 22
7. Water Absorption Test Report, BS EN 772-11 :2011
8. Acoustic Test Report , ASTM E90
9. Robustness Test Report , BS 5234
10. PE Endorsement
11. Leaching Analysis , US EPA Method 1311 :1992 , Toxicity Characteristic
11. Malaysia CIDB Certificate
12. Malaysia BOMBA Certificate
13. Material Safety Data Sheet
14. Vodapruf ISO 9001:2015 Certificate
15. Green Label Certificate
16. U-value test report
17. Singapore Green Building Council 3 ticks

VODAPRUF

Manufacturer :

Vodapruf Pte Ltd (Singapore HQ)
8B Admiralty Street #08-12 Singapore 757440
H +65 9796 5910 T +65 6635 5729
E inquiry@vodapruf.com

Vodapruf Pte Ltd (Malaysia, Production)
No. 581, Jalan Idman 3/7, Taman Perindustrian
Senai, 81400, Senai, Johor, Malaysia.
T +60 1621 77155 E inquiry@vodapruf.com

www.vodapruf.com