

# IBS

**INDUSTRIALISE  
BUILDING  
SYSTEM**



# TABLE OF CONTENTS

<b>1.0 PROJECT REFERENCE.....</b>	<b>4-42</b>
<b>2.0 PRODUCTS.....</b>	<b>43</b>
2.1 INTEGRATED CONCRETE MACHINE (MODEL: RBM-3000).....	43
2.2 RBM FORMWORK SYSTEM (IBS SYSTEM) .....	44
2.3 RBM SKIM PLASTER SPRAY MACHINE.....	45
<b>3.0 RBM CONCRETE TECHNOLOGY .....</b>	<b>46</b>
<b>4.0 SPECIFICATION.....</b>	<b>47-50</b>
<b>5.0 PRODUCT CERTIFICATE APPROVAL .....</b>	<b>51</b>
5.1 RBM WALL SYSTEM DENSITY 1200 .....	51
5.1.1 BOMBA CERTIFICATE RBM WALL SYSTEM DENSITY 1200 .....	51
5.1.2 SIRIM TEST REPORT RBM WALL SYSTEM 1200.....	52
5.2 RBM WALL SYSTEM DENSITY 1600 .....	53
5.2.1 BOMBA CERTIFICATE RBM WALL SYSTEM DENSITY 1600 .....	53
5.2.2 SIRIM TEST REPORT RBM WALL SYSTEM 1600.....	54
5.3 RBM WALL SYSTEM DENSITY 1800 .....	55
5.3.1 BOMBA CERTIFICATE RBM WALL SYSTEM DENSITY 1800 (LOAD BEARING) .....	55
5.3.2 SIRIM TEST REPORT RBM WALL SYSTEM 1800 (LOAD BEARING).....	56
5.3.3 BOMBA CERTIFICATE RBM WALL SYSTEM DENSITY 1800 (NON-LOAD BEARING) .....	57
5.3.4 SIRIM TEST REPORT RBM WALL SYSTEM 1800 (NON-LOAD BEARING) .....	58
5.4 RBM WALL SYSTEM DENSITY 2100 .....	59
5.4.1 BOMBA CERTIFICATE RBM WALL SYSTEM DENSITY 2100 .....	59
5.4.2 SIRIM TEST REPORT RBM WALL SYSTEM 2100.....	60
5.5 RBM WALL SYSTEM G20 .....	61
5.5.1 BOMBA CERTIFICATE RBM WALL SYSTEM G20 (LOAD BEARING) .....	61
5.6 RBM WALL SYSTEM G25 .....	62
5.6.1 BOMBA CERTIFICATE RBM WALL SYSTEM G25 (LOAD BEARING) .....	62
5.7 WATER ABSORPTION TEST REPORT .....	63
<b>6.0 CERTIFICATE.....</b>	<b>64-67</b>







## 1.0 PROJECT REFERENCE



**LOCATION: TUARAN, SABAH, MALAYSIA**

**TYPE: 431 UNITS, DOUBLE STOREY TERRACE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: TUARAN, SABAH, MALAYSIA**

**TYPE: 418 UNITS, 18 STOREYS APARTMENT**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + SHEAR WALL SYSTEM**







**LOCATION: GUA MUSANG, KELANTAN, MALAYSIA**

**TYPE: SINGLE STOREY TERRACE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: GUA MUSANG, KELANTAN, MALAYSIA**

**TYPE: DOUBLE STOREY SEMI-D**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: LAHAD DATU, SABAH, MALAYSIA**

**TYPE: 2000 UNITS, SINGLE STOREY TERRACE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: KEDAH, MALAYSIA**

**TYPE: DOUBLE STOREY SEMI-D**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: PAHANG, MALAYSIA**

**TYPE: DOUBLE STOREY CLUSTER**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: PHILIPPINES**

**TYPE: SINGLE STOREY SEMI-D**

**BUILDING SYSTEM: RBM BUILDING SYSTEM +LIGHTWEIGHT STEEL STRUCTURE**







**LOCATION: TANJUNG KARANG, MALAYSIA**

**TYPE: SINGLE STOREY BUNGALOW**

**BUILDING SYSTEM: RBM BUILDING SYSTEM +LIGHTWEIGHT STEEL STRUCTURE**







**LOCATION: TERENGGANU, MALAYSIA**

**TYPE: SINGLE STOREY BUNGALOW**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: TERENGGANU, MALAYSIA**

**TYPE: DOUBLE STOREY TERRACE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: KUNAK, MALAYSIA**

**TYPE: 54 UNITS, SINGLE STOREY CLASSROOM**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: CAPE TOWN, SOUTH AFRICA**

**TYPE: SINGLE STOREY HOUSE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: SABAH, MALAYSIA**

**TYPE: SINGLE STOREY TERRACE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**



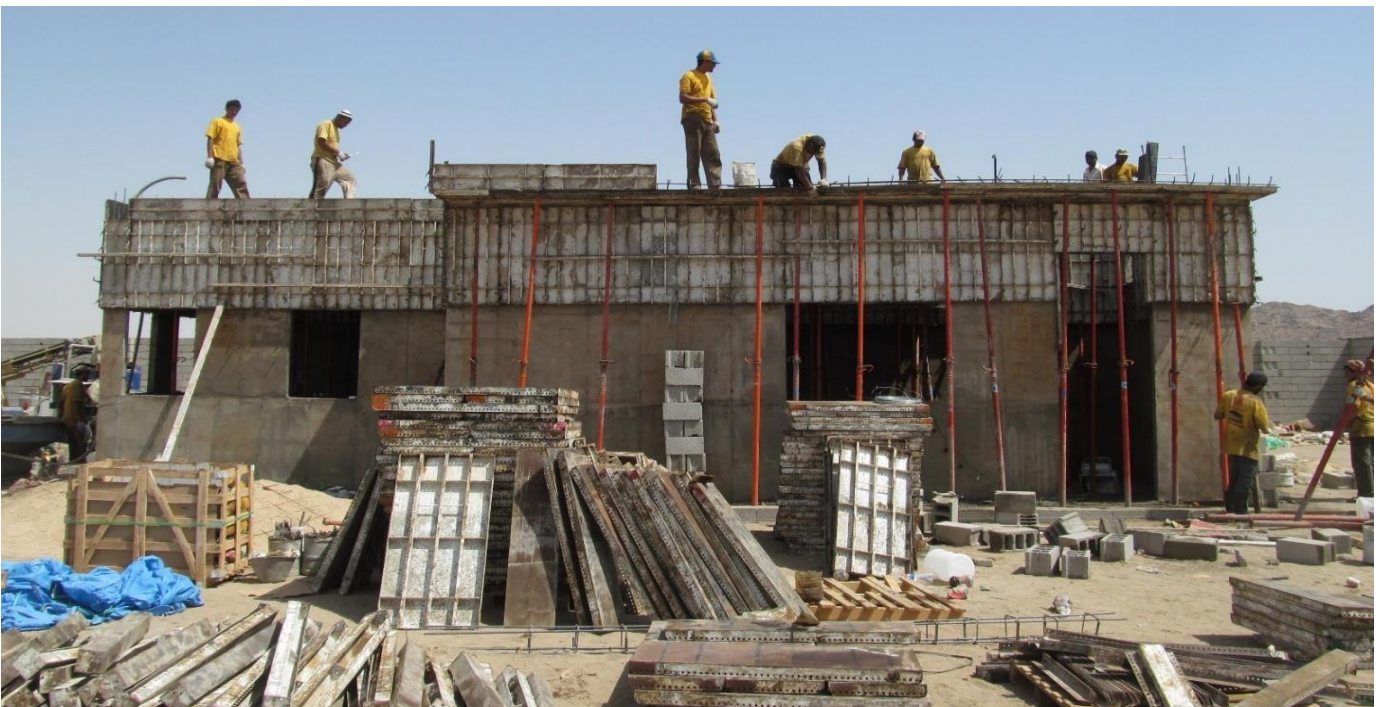




**LOCATION: SAUDI ARABIA**

**TYPE: DOUBLE STOREY BUNGALOW**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: PUTRAJAYA, MALAYSIA**

**TYPE: 3 STOREYS SUPERLINK HOUSE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: CAMERON HIGHLAND, MALAYSIA**

**TYPE: HIGHRISE BUILDING HOTEL**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: SARAWAK, MALAYSIA**

**TYPE: DOUBLE & SEMI-D HOUSING**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: SABAH, MALAYSIA**

**TYPE: HIGHRISE BUILDING HOTEL**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**





**LOCATION: MEDAN CITY, INDONESIA**

**TYPE: HIGHRISE SHOPPING MALL**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: METRO MANILA, PHILIPPINES**

**TYPE: SCHOOL FOR MINISTER**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + BRC STRUCTURAL WALL**







**LOCATION: BRUNEI**

**TYPE: HIGHRISE BUILDING HOTEL**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: MEDAN CITY, INDONESIA**

**TYPE: SHOPLOT**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: PHILIPPINES**

**TYPE: TOWNHOUSE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM + RC STRUCTURE**







**LOCATION: MALAYSIA**  
**TYPE: WATER TANK**  
**BUILDING SYSTEM: RBM BUILDING SYSTEM**







**LOCATION: KUALA LUMPUR, MALAYSIA**  
**TYPE: HIGHRISE BUILDING**  
**BUILDING SYSTEM: RBM PLASTERING SYSTEM**







**LOCATION: MEDAN, INDONESIA**

**TYPE: HOSPITAL**

**BUILDING SYSTEM: RBM BUILDING SYSTEM**







**LOCATION: KUALA LUMPUR, MALAYSIA**  
**TYPE: HIGHRISE BUILDING**  
**BUILDING SYSTEM: RBM PLASTERING SYSTEM**







**LOCATION: PUTRAJAYA, MALAYSIA**

**TYPE: OFFICE BUILDING**

**BUILDING SYSTEM: RBM PLASTERING SYSTEM**







**LOCATION: KUALA LUMPUR, MALAYSIA**

**TYPE: SHOPPING MALL**

**BUILDING SYSTEM: RBM PLASTERING SYSTEM**







**LOCATION: KELANTAN, MALAYSIA**

**TYPE: MOSQUE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM**







**LOCATION: PUTRAJAYA, MALAYSIA**

**TYPE: SHOPPING MALL**

**BUILDING SYSTEM: RBM PLASTERING SYSTEM**







**LOCATION: JOHOR BAHRU, MALAYSIA**  
**TYPE: HIGHRISE APARTMENT**  
**BUILDING SYSTEM: RBM BUILDING SYSTEM**







**LOCATION: PHILLIPINES**

**TYPE: SINGLE STOREY TERRACE HOUSE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM**







**LOCATION: PHUKET, THAILAND**

**TYPE: SINGLE STOREY HOUSE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM**







**LOCATION: NEGERI SEMBILAN, MALAYSIA**

**TYPE: FACTORY WALL**

**BUILDING SYSTEM: RBM BUILDING SYSTEM**







**LOCATION: TERENGGANU, MALAYSIA**  
**TYPE: SINGLE STOREY TERRACE**  
**BUILDING SYSTEM: RBM BUILDING SYSTEM**







**LOCATION: TERENGGANU, MALAYSIA**

**TYPE: SINGLE STOREY TERRACE**

**BUILDING SYSTEM: RBM BUILDING SYSTEM**







**LOCATION:KOTA KINABALU, SABAH**

**TYPE: ART GALLERY**

**BUILDING SYSTEM: RBM BUILDING SYSTEM**





## 2.0 PRODUCTS

### 2.1 INTEGRATED CONCRETE MACHINE (MODEL: RBM-3000)



**PATENT GRANTED**

MY-133290-A

MY-149328-A

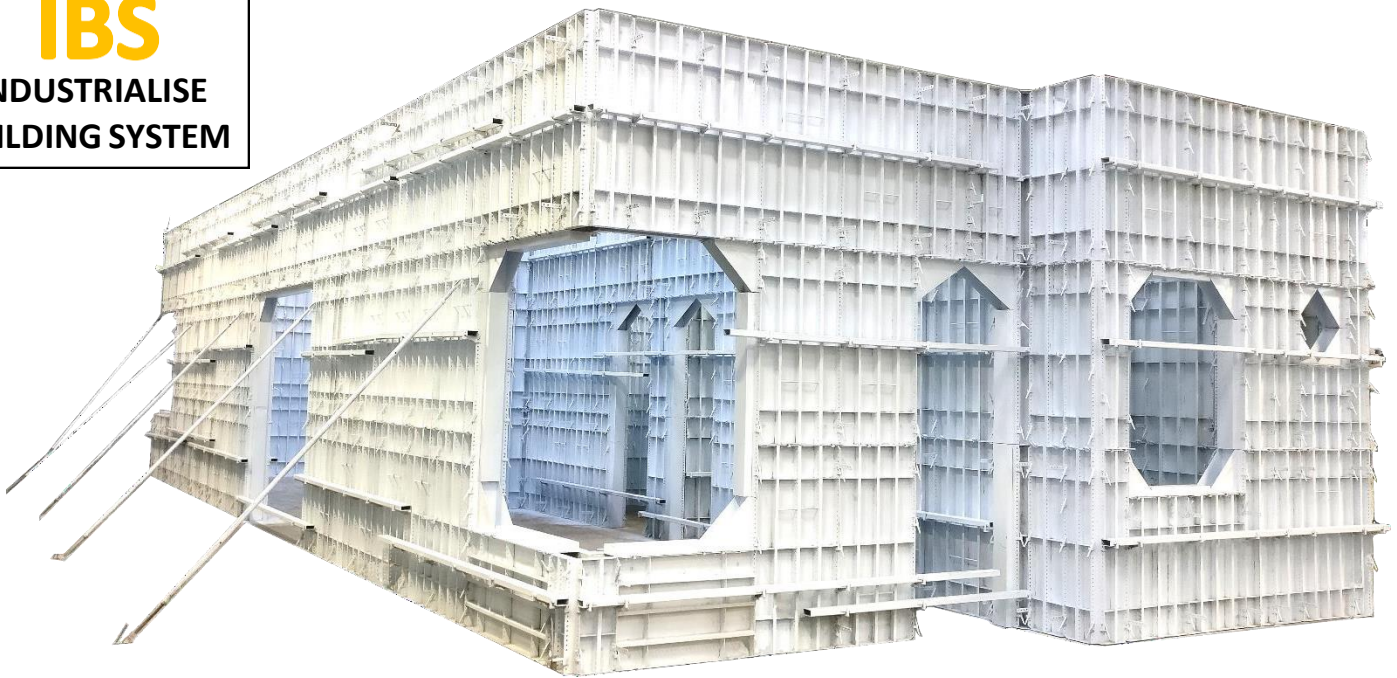
MY-187368-A

RBM Integrated Concrete Machine, model: RBM-3000 (Patent Granted: MY-133290-A, MY-149328-A and MY-187368-A) is a multi-function machine that integrated with **SMART & INNOVATIVE** technologies for different type of application & comply with building requirement in Green, Systematic and Energy Efficient way.

The machine is built in with the foam generator with an amazing capacity that generate 1085 litres of foam per minute, there also two conveyor to deliver raw material for processing concrete. **RBM-3000** special design with an auto weighing scaling system to control all the material require automatically according to the formulation setting. **RBM-3000** has a powerful mixer which meets different type of concrete mixing needs and a high-tech pumping system that can deliver concrete up to higher floor with the pumping output of 0-20m<sup>3</sup>/hour.



## 2.2 RBM FORMWORK SYSTEM (IBS SYSTEM)



RBM Formwork System is made from metal and is able to recycle the usage for cast structures and wall that resemble conventional plastered brick structures. The system involves the pre-designed according to the architectural drawing, i.e. wall, column, beam, slab, staircase and window/door.

As planning on coordinate the set of formwork in-situ, this able to solve the problem of deflection to increase the installation job to the fastest limit.

Formwork panels are produced by high accuracy machine after dimension of panels is given, which allow high production of exact quality standards. Due to the production process, number of sets of formwork can be produced in any country at any time. Individual panels also can be produce based on the architectural/ site requirement. The largest panel only weight 18kg, therefore can easily be handled and transported.

The formwork system infuse with clip-lock system where every panel can be easily be connect and dismantle. Having 2 ties between every formwork panel that able to hold the load of concrete about the maximum height of 3.6m. (Special fabricated formwork can up to 6m height). The numbers of components are modular, making adjustments in dimension is simple. It has a long life span, and after its usage the panel are recyclable. Produce a smooth concrete surface off-the mould surface which does not require thick plastering.

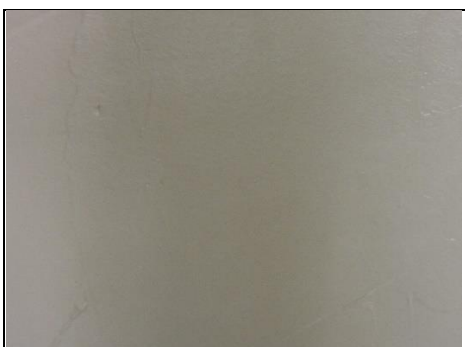


## 2.3 RBM SKIM PLASTER SPRAY MACHINE



RBM Skim Plaster Spray Machine (SP42), able to spray for application such as internal walling, external walling texture and tile bedding by using different nozzle provided. The spraying/pumping is remote controlled, speed of output also able to control depending on user requirements. Made of stainless steel equipped with hot-dip zinc coated and screw pump that driven by electric motor (220V).

**INTERNAL WALL**



**EXTERNAL WALL**



**TILE BEDDING**





## 3.0 RBM CONCRETE TECHNOLOGY



RBM Concrete Technology can be your **BEST BUILDING MATERIAL**. It categories into two type, one is Lightweight Concrete (Foam Concrete), and the other is Reinforcement Concrete (Load-bearing Concrete). Each have different physical properties that is more advance than conventional concrete. The

**BENEFIT** of RBM Concrete able to reduce the **dead load** of the building structure where tons of rebar and steel can be reduce. It also can be manufactured to **precise specifications** of strength and densities require by every country buildings requirement. It had **excellent workability** where no vibration were require. The casted wall can be **nail, planed drilled, wall plug** and **sawn**. Provides **excellent insulation** against heat/cold and acoustic. The technology of our concrete can reach **4 hour fire rating** that underwent British Standard and American standard by our SIRIM, Standard and Industrial Research Institute of Malaysia and BOMBA, Fire and Rescue Department of Malaysia approval.

### ROI EFFICIENCY

- >50 Units

### TRAINING & TECHNICAL BACKUP

- Set-up, Operation & Installation

### DELIVERY

- 7-30 Working Days Period

### PAYMENT

- Loan / Leasing

### CERTIFICATE & APPROVAL

- SIRIM, BOMBA & CIDB (CLASS A)
- PATENT GRANTED & COPYRIGHT
- ISO 9001:2015

NOTE:



## 4.0 SPECIFICATION

Sample

Item	Description	Unit	Qty	Rate	Amount	
					RM	sen
A	<b><u>ELEMENT NO.</u></b>					
	<u>Vibrated Reinforced Concrete Grade with manufacturer additive as specified including all moulds finished fair on all exposed surfaced, stored, pumping, hoisting and fixed in position as described in</u>					
	____ mm Thick suspended slab (water tank slab)					
B	<b>Concrete Structural Specification</b>					
	<u>"RBM CONCRETE 2.1" for concrete structure only</u> Proprietary System : 100mm thickness "RBM WALL SYSTEM 2.1" load bearing, Compressive Strength : Grade 30.0N/mm <sup>2</sup> @28days ;Density 2,100kg/m <sup>3</sup> as SIRIM 2013FE0352, 2013CBD135, 2018FE0041 & 2018CBD007, 2hours fire rated with BOMBA approval BS 476:PART 22:1987 & ASTM E2226-10 or approved equivalent wall system ; including IBS reusable steel formwork installation accordance to MS1064, forming opening, placing rebar lintel on opening, bedded horizontal damp proof course ,steel fabric reinforcement to engr. details(if any),etc all in accordance with manufacturer's instructions.	m <sup>3</sup>				
	<b>Wall Specification</b>					
I	<u>"RBM CONCRETE G25" for external and internal wall only</u>					
	Proprietary System : 100mm thickness "RBM WALL SYSTEM G25" load bearing, Compressive Strength : Grade 25N/mm <sup>2</sup> @28days as SIRIM 2021FE0042 & 2021CBD0001, 2hours fire rated with BOMBA approval BS 476:PART 21:1987 & ASTM E2226-10 or approved equivalent wall system ; including IBS reusable steel formwork installation accordance to MS1064, forming opening, placing rebar lintel on opening, bedded horizontal damp proof course ,steel fabric reinforcement to engr. details(if any),etc all in accordance with manufacturer's instructions.	m <sup>3</sup>				
			-	-	-	-



II	<p><u>“RBM WALL SYSTEM G20” for external &amp; internal wall only</u></p> <p>Proprietary System : 100mm thickness “RBM WALL SYSTEM G20” load bearing, Compressive Strength : Grade 20.0N/mm<sup>2</sup>@28days; Density 1,926 kg/m<sup>3</sup> as SIRIM 2021FE0041 &amp; 2020CBD0066, 2hours fire rated with BOMBA approval BS 476:PART 21:1987, MS EN 12390-3: 2012 &amp; MS EN 12390-7: 2012 or approved equivalent wall system ; including IBS reusable steel formwork installation accordance to MS1064, forming opening, placing rebar lintel on opening, bedded horizontal damp proof course ,steel fabric reinforcement to engr. details(if any),etc all in accordance with manufacturer’s instructions.</p>	m <sup>3</sup>				
III	<p><u>“RBM WALL SYSTEM 2.1” for external &amp; internal wall only</u></p> <p>Proprietary System : 100mm thickness “RBM WALL SYSTEM 2.1” load bearing, Compressive Strength : Grade 30.0N/mm<sup>2</sup>@28days ;Density 2,100kg/m<sup>3</sup> as SIRIM 2013FE0352, 2013CBD135, 2018FE0041 &amp; 2018CBD007, 2hours fire rated with BOMBA approval BS 476:PART 22:1987 &amp; ASTM E2226-10 or approved equivalent wall system ; including IBS reusable steel formwork installation accordance to MS1064, forming opening, placing rebar lintel on opening, bedded horizontal damp proof course ,steel fabric reinforcement to engr. details(if any),etc all in accordance with manufacturer’s instructions.</p>	m <sup>3</sup>				
IV	<p><u>“RBM WALL SYSTEM 1.8” for external &amp; internal wall only</u></p> <p>Proprietary System : 100mm thickness “RBM WALL SYSTEM 1.8” load &amp; non-load bearing, Compressive Strength : Grade 12.0 N/mm<sup>2</sup>@28days; Density 1,800kg/m<sup>3</sup> as SIRIM 2018FE0862 &amp; 2018CBD0187 (Load bearing) and SIRIM 2018FE0863 (Non-Load Bearing), 2hours fire rated with BOMBA approval BS 476:PART 21:1987 &amp; ASTM E2226-10 (Load bearing) and BS 476:PART 22:1987 (Non Load Bearing) or approved equivalent wall system ; including IBS reusable steel formwork installation accordance to MS1064, forming opening, placing rebar lintel on opening, bedded horizontal damp proof course ,steel fabric reinforcement to engr. details(if any),etc all in accordance with manufacturer’s instructions.</p>	m <sup>3</sup>				



V	<p><u>“RBM WALL SYSTEM 1.6” for external &amp; internal wall only</u></p> <p>Proprietary System : 100mm thickness “RBM WALL SYSTEM 1.6” non-load bearing, Compressive Strength : Grade 7N/mm<sup>2</sup>@28days; Density 1,600kg/m<sup>3</sup> as SIRIM 2019FE0187-S1 &amp; 2019CBD0047, 2hours fire rated with BOMBA approval BS 476:PART 22:1987 &amp; ASTM E2226-10 or approved equivalent wall system ; including IBS reusable steel formwork installation accordance to MS1064, forming opening, placing rebar lintel on opening, bedded horizontal damp proof course ,steel fabric reinforcement to engr. details(if any),etc all in accordance with manufacturer’s instructions.</p>	m <sup>3</sup>				
VI	<p><u>“RBM WALL SYSTEM 1.2” for internal wall only</u></p> <p>Proprietary System : 100mm thickness “RBM WALL SYSTEM 1.2” non-load bearing, Compressive Strength : Grade 3.0 N/mm<sup>2</sup>@; Density 1,200kg/m<sup>3</sup> as SIRIM 2021FE0496-S1, 2021FE0496, 2021CBD0022-S1 &amp; 2021CBD0022, 4hours fire rated with BOMBA approval BS 476:PART 22:1987; ASTM E2226-10 or approved equivalent wall system; including IBS reusable steel formwork installation accordance to MS 1064, forming opening , placing rebar lintel on opening, bedded horizontal damp proof course, steel fabric reinforcement to engr. details(if any), etc all in accordance with manufacturer’s instructions.</p>	m <sup>3</sup>				
C	<b>Skim Coat/Tile Adhesive Specification</b>					
I	<p><u>Internal: “RBM Skim Coat” for Finishing work only</u></p> <p>Proprietary System: Applied 2mm “RBM Skim Coat” coating both side for building finishing with smooth surface or approved equivalent finishing, all in accordance to manufacturer specification details.</p>	m <sup>2</sup>				
II	<p><u>External: “RBM Skim Coat” for Finishing work only</u></p> <p>Proprietary System: Applied 3mm “RBM Skim Coat” coating both side for building finishing with texture, pattern or approved equivalent finishing, all in accordance to manufacturer specification details.</p>	m <sup>2</sup>				
III	<p><u>Tile Adhesive:“RBM Tile Adhesive” for Finishing work only</u></p>					



C1	<p>Proprietary System: Applied 5mm “RBM Tile Adhesive” bedded coating pattern for tiles, mosaic or approved equivalent finishing, all in accordance to manufacturer specification details.</p> <p>Prepare and apply____coats of ‘Coral’ or other equal and approved cementitious waterproofing compound including 45° angle fillet between slab and wall and a layer____mm thick cement and sand (1:3) as specified protective screed and forming channel for scupper drain all as per manufacturer’s specifications and to the satisfactions of the S.O. (measured net – no allowance made for laps) to</p>	m <sup>2</sup>				
D	<p><u>Supply and fix the following approved natural anodized aluminium/metal casement window complete with frames, couplings, transoms, mullions, concealed top and bottom bolts, push/pull handle, stays, glazing beads and all other fittings and accessories including building in or cutting and pinning lugs, beading frames in waterproofed cement and sand (1:3) mortar pointing; including ____mm thick ____% tinted glass as specified glazing to aluminium/metal frame all accordance to manufacturer’s recommendation and architect’s approval</u></p>	No.				



## 5.0 PRODUCT CERTIFICATE APPROVAL

### 5.1 RBM WALL SYSTEM DENSITY 1200

#### 5.1.1 BOMBA CERTIFICATE RBM WALL SYSTEM DENSITY 1200

<p>No. Fail: JBPM.IP.RNP:700-7/25-111 ( 3 ) (BAHARU)</p> <p><b>SIJIL PEPAKANGAN KESELAMATAN KEBAKARAN</b></p> <p>APPROVAL CERTIFICATE</p> <p>Jabatan Bomba dan Penyelamat Malaysia dengan ini memperakukan Fire and Rescue Department of Malaysia hereby certify</p>	<p><b>WALL SYSTEM 4 JAM (NON-LOADBEARING)</b></p> <p><b>BRAND: RBM</b></p> <p><b>PRODUCT: RBM Wall System (RBM Lightweight Concrete 1.2)</b></p> <p><b>THICKNESS: 100mm (t)</b></p> <p><b>NOMINAL DENSITY: 1200kg/m<sup>3</sup></b></p> <p><b>INSTALLATION: R10 steel reinforcement (top side, bottom side and vertical side)</b></p> <p><b>RBM BUILDING MACHINERY SDN BHD</b></p> <p><b>INTEGRITI 240 MINIT &amp; INSULASI 240 MINIT</b></p> <p><b>SIRIM 2021FE0496-S1 (21/12/2021), 2021FE0496 (30/11/2021), 2021CBD0022-S1 (30/11/2021) &amp; 2021CBD0022 (24/11/2021)</b></p> <p><b>PEMASANGAN HENDAKLAH MEMATUHI SPESIFIKASI UJIAN, UBBL 1984 DAN PERLU MEMATUHI SYARAT-SYARAT TAMBAHAN SEPERTI DI LAMPIRAN A2 &amp; A3.</b></p> <p>berakuan: 12/04/2022 hingga 12/04/2024</p>
<p><b>SIJIL PEPAKANGAN KESELAMATAN KEBAKARAN</b></p> <p>APPROVAL CERTIFICATE</p> <p>Jabatan Bomba dan Penyelamat Malaysia dengan ini memperakukan Fire and Rescue Department of Malaysia hereby certify</p>	<p><b>WALL SYSTEM (NON-LOADBEARING)</b></p> <p><b>BRAND: RBM; PRODUCT: RBM Wall System (RBM Lightweight Concrete 1.2)</b></p> <p><b>THICKNESS: 100mm (t)</b></p> <p><b>4 JAM INTEGRITI DAN INSULASI</b></p> <p><b>Berdasarkan Piawaian Complying with</b></p> <p><b>BS 476: Part 22:1987 &amp; ASTM Standard E2226-10</b></p> <p><b>Syarikat Berdaftar Registered company</b></p> <p><b>RBM BUILDING MACHINERY SDN BHD (1096958-D)</b> Lot 107-108, Lorong Senawang 4/3, Senawang Industrial Estate, 70450 Seremban, Negeri Sembilan.</p> <p>Tempoh sah perakuan: 12/04/2022 hingga 12/04/2024</p> <p>(PKPJ B KAMARULZAMAN MALIK ABDULLAH) Pengerah Bahagian Perancangan dan Penyelidikan, b.p. Ketua Pengerah Jabatan Bomba dan Penyelamat Malaysia.</p> <p>Tarikh: 04 April 2022</p> <p><b>** Peringatan:</b> Sila patuhi sepenuhnya syarat-syarat dan had kegunaan seperti dalam Lampiran A1</p>



## 5.1.2 SIRIM TEST REPORT RBM WALL SYSTEM DENSITY 1200

**SIRIM QAS International Sdn. Bhd.** (10334-X)  
No. 1, Persiaran Dato Menteri, P.O. Box 305, Section 2,  
Jalan Duta, 50480 Kuala Lumpur, Malaysia.  
Tel: 03-55464565  
Fax: 03-55464565  
www.sirimqas.com.my

**SIRIM QAS**  
INTERNATIONAL

**TEST REPORT**  
REPORT NO.: 2017FE0380  
PAGE: 1 OF 24

This Test Report refers only to samples submitted by the applicant to SIRIM QAS International Sdn. Bhd. and tested by SIRIM QAS International Sdn. Bhd. This Test Report shall not be reproduced, except in full and shall not be used for any purpose by any means or forms without the prior written consent of SIRIM QAS International Sdn. Bhd. Please refer to the back of this report for the full terms and conditions of use.

**Applicant / Manufacturer**  
RBM BUILDING MACHINERY TRADING SDN. BHD.,  
Senawang Industrial Estate,  
Lot 108, Lorong Senawang 43,  
70450 Seremban, Negeri Sembilan Darul Khusus  
(Attn: Dato Dr. Goh Chua Woo, Mr. Er Seng Beng, Mr. Goh Chie Zhong)

**Product**  
RBM WALL SYSTEM 1.2

**Reference Standard/ Method of Test**  
BS 476: Part 22: 1987

**Description of test specimen**  
A symmetrical non-load bearing RBM Foam Concrete Wall Partition System 1.2 was constructed by in-situ process at the test frame on 7th June 2017. The mixture of RBM Foam Concrete Wall Partition System 1.2 was produced using RBM Foam Concrete Machine. The overall size of the test specimen was 1000mm (H) x 200mm (W) x 200mm (D). The test specimen and construction of the RBM Wall System 1.2 are detailed in Page 3 of this report.

**Date of test**  
10th July 2017

**Test Result**  
Fire Resistance : 240 minutes  
Integrity : 240 minutes  
Insulation : 240 minutes

**Date received**  
23rd March 2017

**Job No./ Ref No.**  
J2017140096/SQAS/FFS/151-3

**Date issued**  
27 JUL 2017

**Approved Signatories**  
KHARUL ANWAR BIN KAMARUDDIN  
Testing Executive  
ROHAYA IBRAHIM  
Head  
Fire Protection Section  
Testing Services Department  
SIRIM QAS International Sdn. Bhd.

**TH REPORT FOR CONCRETE CUBE TEST**  
(B.S. 1881: Part 116: 1983)  
Cube Size: 100mm x 100mm x 100mm  
Proportion of Mix: Water/Cement Ratio: 19  
Slump: NS 32.5 N  
Type of Cement: NS 32.5 N  
Fine Aggregate: NS 32.5 N  
Coarse Aggregate: NS 32.5 N  
Admixtures (if any):  
Concrete Cube Prepared by: (Signature & Stamp)  
Age (Days): 28  
Mode of failure: Compression  
Density (Kg/m³): 1274  
Load (kN): 122.4  
Strength (N/mm²): 5.44  
Average: 5.44  
Note: 1 N/mm² = 143 Psi

**TH REPORT FOR CONCRETE CUBE TEST**  
(B.S. 1881: Part 116: 1983)  
Cube Size: 100mm x 100mm x 100mm  
Proportion of Mix: Water/Cement Ratio: 19  
Slump: NS 32.5 N  
Type of Cement: NS 32.5 N  
Fine Aggregate: NS 32.5 N  
Coarse Aggregate: NS 32.5 N  
Admixtures (if any):  
Concrete Cube Prepared by: (Signature & Stamp)  
Age (Days): 28  
Mode of failure: Compression  
Density (Kg/m³): 1200  
Load (kN): 51.0  
Strength (N/mm²): 5.10  
Average: 5.10  
Note: 1 N/mm² = 143 Psi

**remban) SDN. BHD.** (Reg No. 360897-A)  
Specialists:  
A. Semantan Tg. 70300 Seremban,  
Negeri Sembilan Darul Khusus  
Tel: 03-55464565  
Fax: 03-55464565  
www.geolab-sdn-bhd.com

**CUSTOMER COPY**  
No: 058830

**TH REPORT FOR CONCRETE CUBE TEST**  
(B.S. 1881: Part 116: 1983)  
Cube Size: 100mm x 100mm x 100mm  
Proportion of Mix: Water/Cement Ratio: 19  
Slump: NS 32.5 N  
Type of Cement: NS 32.5 N  
Fine Aggregate: NS 32.5 N  
Coarse Aggregate: NS 32.5 N  
Admixtures (if any):  
Concrete Cube Prepared by: (Signature & Stamp)  
Age (Days): 28  
Mode of failure: Compression  
Density (Kg/m³): 1200  
Load (kN): 51.0  
Strength (N/mm²): 5.10  
Average: 5.10  
Note: 1 N/mm² = 143 Psi

**TH REPORT FOR CONCRETE CUBE TEST**  
(B.S. 1881: Part 116: 1983)  
Cube Size: 100mm x 100mm x 100mm  
Proportion of Mix: Water/Cement Ratio: 19  
Slump: NS 32.5 N  
Type of Cement: NS 32.5 N  
Fine Aggregate: NS 32.5 N  
Coarse Aggregate: NS 32.5 N  
Admixtures (if any):  
Concrete Cube Prepared by: (Signature & Stamp)  
Age (Days): 28  
Mode of failure: Compression  
Density (Kg/m³): 1200  
Load (kN): 51.0  
Strength (N/mm²): 5.10  
Average: 5.10  
Note: 1 N/mm² = 143 Psi

**remban) SDN. BHD.** (Reg No. 360897-A)  
Specialists:  
A. Semantan Tg. 70300 Seremban,  
Negeri Sembilan Darul Khusus  
Tel: 03-55464565  
Fax: 03-55464565  
www.geolab-sdn-bhd.com

**CUSTOMER COPY**  
No: 058829

**TH REPORT FOR CONCRETE CUBE TEST**  
(B.S. 1881: Part 116: 1983)  
Cube Size: 100mm x 100mm x 100mm  
Proportion of Mix: Water/Cement Ratio: 19  
Slump: NS 32.5 N  
Type of Cement: NS 32.5 N  
Fine Aggregate: NS 32.5 N  
Coarse Aggregate: NS 32.5 N  
Admixtures (if any):  
Concrete Cube Prepared by: (Signature & Stamp)  
Age (Days): 28  
Mode of failure: Compression  
Density (Kg/m³): 1274  
Load (kN): 122.4  
Strength (N/mm²): 5.44  
Average: 5.44  
Note: 1 N/mm² = 143 Psi

**TH REPORT FOR CONCRETE CUBE TEST**  
(B.S. 1881: Part 116: 1983)  
Cube Size: 100mm x 100mm x 100mm  
Proportion of Mix: Water/Cement Ratio: 19  
Slump: NS 32.5 N  
Type of Cement: NS 32.5 N  
Fine Aggregate: NS 32.5 N  
Coarse Aggregate: NS 32.5 N  
Admixtures (if any):  
Concrete Cube Prepared by: (Signature & Stamp)  
Age (Days): 28  
Mode of failure: Compression  
Density (Kg/m³): 1200  
Load (kN): 51.0  
Strength (N/mm²): 5.10  
Average: 5.10  
Note: 1 N/mm² = 143 Psi

**remban) SDN. BHD.** (Reg No. 360897-A)  
Specialists:  
A. Semantan Tg. 70300 Seremban,  
Negeri Sembilan Darul Khusus  
Tel: 03-55464565  
Fax: 03-55464565  
www.geolab-sdn-bhd.com

**CUSTOMER COPY**  
No: 058830

**TH REPORT FOR CONCRETE CUBE TEST**  
(B.S. 1881: Part 116: 1983)  
Cube Size: 100mm x 100mm x 100mm  
Proportion of Mix: Water/Cement Ratio: 19  
Slump: NS 32.5 N  
Type of Cement: NS 32.5 N  
Fine Aggregate: NS 32.5 N  
Coarse Aggregate: NS 32.5 N  
Admixtures (if any):  
Concrete Cube Prepared by: (Signature & Stamp)  
Age (Days): 28  
Mode of failure: Compression  
Density (Kg/m³): 1200  
Load (kN): 51.0  
Strength (N/mm²): 5.10  
Average: 5.10  
Note: 1 N/mm² = 143 Psi

**TH REPORT FOR CONCRETE CUBE TEST**  
(B.S. 1881: Part 116: 1983)  
Cube Size: 100mm x 100mm x 100mm  
Proportion of Mix: Water/Cement Ratio: 19  
Slump: NS 32.5 N  
Type of Cement: NS 32.5 N  
Fine Aggregate: NS 32.5 N  
Coarse Aggregate: NS 32.5 N  
Admixtures (if any):  
Concrete Cube Prepared by: (Signature & Stamp)  
Age (Days): 28  
Mode of failure: Compression  
Density (Kg/m³): 1200  
Load (kN): 51.0  
Strength (N/mm²): 5.10  
Average: 5.10  
Note: 1 N/mm² = 143 Psi



## 5.2 RBM WALL SYSTEM DENSITY 1600

### 5.2.1 BOMBA CERTIFICATE RBM WALL SYSTEM DENSITY 1600

<p>No. Fail: JBPM/PI/RNP:700-7/2/25-80 ( 6 ) (PEMBAHARUAN: KEDUA)</p> <p><b>SIJIL PEPASANGAN KESELAMATAN KEBAKARAN</b> APPROVAL CERTIFICATE</p> <p>Jabatan Bomba dan Penyelamat Malaysia dengan ini memperakukan Fire and Rescue Department of Malaysia hereby certify</p> <p><b>WALL SYSTEM</b> (RBM/MODEL : RBM FOAM CONCRETE 1.6) INTEGIRTI DAN INSULASI : 2 JAM (NON-LOAD BEARING)</p> <p>Berdasarkan Piawaian Complying with BS 476 PART 22: 1987 &amp; ASTM STD E2226-10</p> <p>Syarikat Berdaftar Registered company <b>RBM BUILDING MACHINERY SDN BHD</b> (1096959-D) Lot 108, Lorong Senawang 4/3, Senawang Industrial Estate, 70450, Seremban Negeri Sembilan</p> <p>Tempoh sah perakuan: 24/07/2021 hingga 23/07/2022</p>	<p>LAMPIRAN A1</p> <p>700-7/2/25-80 ( 6 ) 19 (P2)</p> <p><b>WALL SYSTEM</b></p> <ul style="list-style-type: none"> <li>RBM FOAM CONCRETE WALL SYSTEM 1.6</li> <li>2 JAM NON-LOAD BEARING</li> <li>MEASURED DENSITY : 1600 kg/m<sup>3</sup></li> <li>Thickness: 100 mm</li> <li>RBM BUILDING MACHINERY SDN BHD</li> <li>INTEGIRTI 120 MINIT &amp; INSULASI 120 MINIT</li> <li>Average Strength: 7.6 N/mm<sup>2</sup></li> <li>SIRIM 2019FE0187-S1 (12/04/2019), &amp; 2019CBD0047 (29/03/2019)</li> <li>PEMASANGAN PERLU MEMATUHI UBBL 1984, SPESIFIKASI UJIAN SERTA SYARAT-SYARAT TAMBAHAN SEPERTI DI LAMPIRAN A2.</li> </ul> <p>Tempoh sah perakuan: 24/07/2021 hingga 23/07/2022</p> <p>Pemohonan pembaharuan sijil sila rujuk Lampiran A3.</p> <p>(PKPJ) KAMARUZZAMAN MALIK ABDULLAH) Pengarah, Bahagian Perancangan dan Penyelidikan, b.p. Ketua Pengarah Jabatan Bomba dan Penyelamat Malaysia.</p> <p>Tarikh: 21 Julai 2021</p> <p>** Peringatan: Sila patuhi sepenuhnya syarat-syarat dan had kegunaan seperti dalam Lampiran A1</p>
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## 5.2.2 SIRIM TEST REPORT RBM WALL SYSTEM DENSITY 1600

**SIRIM QAS International Sdn. Bhd.**  
No. 1, Persiaran Dato' Menteri, P.O. Box 7035, Seksyen 2, 40700 Shah Alam,  
Selangor Darul Ehsan, MALAYSIA  
Tel: 03-55446455 Fax: 03-55446454 http://www.sirim.my  
(Company No: 410334-X)

**SIRIM QAS International Sdn. Bhd.**  
No. 1, Persiaran Dato' Menteri, P.O. Box 7035, Seksyen 2, 40700 Shah Alam,  
Selangor Darul Ehsan, MALAYSIA  
Tel: 03-55446455 Fax: 03-55446454 http://www.sirim.my  
(Company No: 410334-X)

**TEST REPORT**  
REPORT NO.: 2014FE0066 PAGE: 1 OF 24

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**Applicant/Manufacturer**  
RBM BUILDING MACHINERY TRADING SDN. BHD.  
Lot 108, Loc. Seremban 4/3,  
Senawang Industries Estate,  
70450 Seremban,  
Negeri Sembilan Darul Khusus  
(Attn: Dato' Dr. Goh Chua Woo)

**Product**  
RBM Wall System 1.6 (RBM Foam Concrete Wall Party/Partition System 1.6)

**Reference Standard/Method of Test**  
a. BS 476: Part 22: 1987  
Methods for determination of the fire resistance of non-load bearing elements of construction. Clause 6 - Determination of fire resistance of partition.  
b. Hose Stream test utilizing the test methodology given in ASTM Standard E2226-10: Standard Practice for Application of Hose Stream.

**Description of test specimen**  
A symmetrical non-load bearing RBM Foam Concrete Wall Party/Partition system 1.6 was constructed by in-situ process at the test site on 18.01.2014. The wall size of 3000 mm (h) x 2920 mm (w) x 122 mm (t). Full description of the test specimen and construction are detailed in page 3 of this report.

**Brand: RBM Foam Concrete Wall**

**Test Results**  
**Fire Resistance Test**  
Based on the test conducted, the RBM Wall System 1.6 (RBM Foam Concrete Wall Party/Partition System 1.6) satisfied the requirements of the BS 476: Part 22: 1987 for the period stated below:  
**Integrity**  
: 130 minutes  
**Insulation**  
: 130 minutes

**Hose Stream Test**  
In accordance with the definitions specified in ASTM Standard E2226-10: Standard Practice for Application of Hose Stream, the result shows that the RBM Wall System 1.6 (RBM Foam Concrete Wall Party/Partition System 1.6) meets the requirements.

**Date of test**  
: 18.01.2014

**Date received**  
: 20.08.2013

**Job No./Ref No.**  
: J20131440358/SQAS/FPS/151-3

**Issued date**  
: 17 MAR 2014

**Approved Signatories:**  
ABDULLAH SYAFI MAT JANI  
Testing Executive

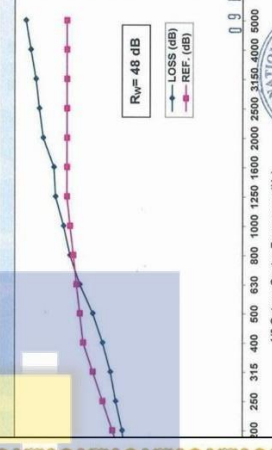
**ROHAYA IBRAHIM**  
Head  
Fire Protection Section  
Testing Services Department  
SIRIM QAS International Sdn. Bhd.

**WALL SYSTEM 1.6 (FOAM CONCRETE WALL EXTERNAL / INTERNAL / PARTY / PARTITION SYSTEM)**  
Thickness: 150 mm  
Humidity = 51.2 %  
Temperature = 27.8°C

**Figure 1: Sound Reduction from frequency of 100 Hz to 5000 Hz**

Frequency (Hz)	Sound Reduction Index (dB)	Reference (dB)
100	30.0	29
125	30.1	32
160	32.2	35
200	33.6	38
250	37.1	41
315	38.0	44
400	41.2	47
500	44.1	48
630	47.4	49
800	50.4	50
1000	52.7	51
1250	55.1	52
1600	57.3	52
2000	59.6	52
2500	62.4	52
3150	63.4	52
4000	64.8	52
5000	65.0	52

**48 dB**



**Figure 1: Sound Reduction from frequency of 100 Hz to 5000 Hz**

**1/3 Octave Center Frequency (Hz)**

**Loss (dB)**  
— LOSS (dB)  
— REF. (dB)

**0.9 FEB 2015**

**1/3 Octave Center Frequency (Hz)**

**ed data of Sound Reduction Index for frequencies of 100 Hz to 5000 Hz**

**WALL SYSTEM 1.6 (FOAM CONCRETE WALL EXTERNAL / INTERNAL / PARTY / PARTITION SYSTEM)**  
Thickness: 150 mm  
Humidity = 51.2 %  
Temperature = 27.8°C

**Figure 1: Sound Reduction from frequency of 100 Hz to 5000 Hz**

Frequency (Hz)	Sound Reduction Index (dB)	Reference (dB)
100	30.0	29
125	30.1	32
160	32.2	35
200	33.6	38
250	37.1	41
315	38.0	44
400	41.2	47
500	44.1	48
630	47.4	49
800	50.4	50
1000	52.7	51
1250	55.1	52
1600	57.3	52
2000	59.6	52
2500	62.4	52
3150	63.4	52
4000	64.8	52
5000	65.0	52

**48 dB**



## 5.3 RBM WALL SYSTEM DENSITY 1800

### 5.3.1 BOMBA CERTIFICATE RBM WALL SYSTEM DENSITY 1800 (LOAD BEARING)

<p>No. Fail: JBPM.IP.RNP: 700-7/2/25-72 (9) (PEMBAHARUAN: KETIGA)</p> <p><b>SIJIL PEPASANGAN KESELAMATAN KEBAKARAN</b></p> <p><b>APPROVAL CERTIFICATE</b></p> <p>Jabatan Bomba dan Penyelamat Malaysia Fire and Rescue Department of Malaysia hereby certify</p> <p><b>SISTEM DINDING / WALL SYSTEM (MODEL: RBM WALL SYSTEM 1.8)</b></p> <p>Berdasarkan Piawaian Complying with</p> <p><b>BS 476: PART 21: 1987 &amp; ASTM E2226-10</b></p> <p><b>Syarikat Berdaftar Registered company</b></p> <p><b>RBM BUILDING MACHINERY SDN BHD (1096959-D)</b> Lot 107-108, Lorong Senawang 4/3 Senawang Industrial Estate 70450 Seremban Negeri Sembilan Darul Khusus</p> <p>Tempoh sah perakuan: 25/03/2022 hingga 25/03/2024</p> <p>(PKPJ B KAMARULZAMAN MALIK ABDULLAH) Pegawai Bahagian Perancangan dan Penyelidikan b.p. Ketua Pengarah Jabatan Bomba dan Penyelamat Malaysia</p> <p>Tarikh: 28 Februari 2022</p> <p><b>** Peringatan:</b> Sila patuhi sepenuhnya syarat-syarat dan had kegunaan seperti dalam Lampiran A1</p>	<p>700-7/2/25-72 (9) 0019 (P3)</p> <p>LAMPIRAN A1</p> <p><b>SISTEM DINDING / WALL SYSTEM (LOAD BEARING) (2 JAM)</b></p> <p><b>MODEL : RBM WALL SYSTEM 1.8</b></p> <p><b>TOTAL THICKNESS : 100 mm</b></p> <p><b>MASS PER UNIT AREA : 178 kg/m<sup>2</sup></b></p> <p><b>INTEGRITI : 120 MINIT</b></p> <p><b>INSULASI : 120 MINIT</b></p> <p><b>RBM BUILDING MACHINERY SDN BHD (1096959-D)</b></p> <p><b>SIRIM 2018FE0862 (16/12/2018) &amp; SIRIM 2018CBD0187 (20/12/2018)</b></p> <p>PEMASANGAN HENDAKLAH MEMATUHI SPESIFIKASI SEPERTIMANA DALAM LAPORAN UJIAN DAN UBL 1984 SERTA PERLU MEMATUHI SYARAT-SYARAT TAMBAHAN SEPERTI DI LAMPIRAN A2 &amp; A3.</p> <p>sah perakuan: 25/03/2022 hingga 25/03/2024</p>	
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## 5.3.2 SIRIM TEST REPORT RBM WALL SYSTEM DENSITY 1800 (LOAD BEARING)

**SIRIM QAS International Sdn. Bhd.** (410334-X)  
 48-1, Persiaran Dato' Menteri, Section 2, P.O. BOX 7035,  
 40100 Shah Alam, Selangor Darul Ehsan, Malaysia.  
 Tel: 03-55446252  
 Fax: 03-55446272  
 www.sirim-qas.com.my

**SIRIM QAS INTERNATIONAL**

**LAB (Seremban) SDN. BHD.** (Reg. No.: 360997-A)  
 In: Soil & Concrete Specialists.  
 Jalan Seremban Tiga 15, Seremban Tiga, 70300 Seremban,  
 Negeri Sembilan Darul Khusus.  
 Tel: 1130 Fax: 606-631 1129  
 lab@slm.net.my Website: www.geolab-sdn-bhd.com

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**No: 028185**

**TEST REPORT**

REPORT NO.: 2018FE0862 PAGE : 1 OF 19

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**THIS TEST REPORT IS ISSUED IN SECURED PDF SOFTCOPY**

**Applicant :** RBM BUILDING MACHINERY SDN. BHD.  
 Lot 108, Lorong Senawang 4/3,  
 Senawang Industrial Estate,  
 70450 Seremban,  
 Negeri Sembilan.  
 (Attn.: Mr. Seng Beng)

**Product :** RBM Wall System 1.8 (Load Bearing)

**Reference Standard/ Method of test :** BS 476: Part 21: 1987  
 Methods for determination of the fire resistance of load bearing elements of construction

**Description of test specimen :** Clause 8 – Determination of the fire resistance of walls  
 Hose Stream test utilizing the test methodology given in ASTM Standard E2226-10: Standard Practice for Application of Hose Stream.

**Date Received :** 08 AUGUST 2018

**Job No. :** J20181440506

**Overall test result :** **Fire Resistance Test**  
 Load bearing Capacity (15kN)  
 Integrity : 120 minutes  
 Insulation : 120 minutes

**Hose Stream Test**  
 The test specimen meets with the requirements.

**Approved Signatory**

(SHARIFAH NUR BADARIAH)  
 Senior Testing Executive

**Approved Signatory**

AZMI MUSA)  
 Head  
 Fire Protection Section  
 Testing Services Department

**STRENGTH REPORT FOR CONCRETE CUBE TEST**  
 (B.S 1881 : Part 118 : 1983)

**Cube Size :** 150mm x 150mm x 150mm

**Prop. Cement Ratio :**

**Water Cement Ratio :**

**Slump :**

**Type of Cement :**

**Fine Aggregate :**

**Coarse Aggregate :**

**Admixture (if any) :**

**Concrete Cube Prepared by :**

**Signature & Stamp**

Date Tested	Age (Days)	Mode of failure*	Density Kg/m <sup>3</sup>	Kg	Load (kN)	Strength N/mm <sup>2</sup>
24.01.14	31		1886	6.4	458.7	20.38
<b>AVERAGE :</b>						<b>20.38</b>

**Witness :**

**30** (Test Engineer)

**for GEOLAB (Seremban) SDN-BHD.**  
 6396

**IR. CHUAN LAM SIANG**  
 Note: Nilumb - 145 Psi

**AWAM**  
 RUTERA PROFESSIONAL

**Malaysia**

**E2/91**



## 5.3.3 BOMBA CERTIFICATE RBM WALL SYSTEM DENSITY 1800 (NON-LOAD BEARING)

<p>No. Fail: JBPM/IP/RNP:700-7/2/25-75 ( 8 ) (PEMBAHARUAN: KEDUA)</p> <p><b>SIJIL PEPASANGAN KESELAMATAN KEBAKARAN</b></p> <p>APPROVAL CERTIFICATE</p> <p>Jabatan Bomba dan Penyelamat Malaysia dengan ini memperakukan Fire and Rescue Department of Malaysia hereby certify</p> <p><b>WALL SYSTEM</b> (RBM/MODEL: RBM WALL SYSTEM 1.8) INTEGRITI &amp; INSULASI 2 JAM (NON-LOAD BEARING)</p> <p>Berdasarkan Piawaian Complying with BS 476: PART 22: 1987</p> <p>Syarikat Berdaftar Registered company</p> <p><b>RBM BUILDING MACHINERY SDN BHD</b> (639526-P) Lot 108, Lorong Senawang 4/3, Senawang Industrial Estate, 70450 Seremban, Negeri Sembilan Darul Khusus.</p> <p>Tempoh sah perakuan: 28/12/2021 hingga 27/12/2023</p> <p>(PKPJ B KAMARULZAMAN MALIK ABDULLAH) Pegawai Bahagian Perancangan dan Penyelidikan b.p. Ketua Pengarah Jabatan Bomba dan Penyelamat Malaysia.</p> <p>Tarikh: 18 Disember 2021</p> <p><b>** Peringatan:</b> Sila patuhi sepenuhnya syarat-syarat dan had kegunaan seperti dalam Lampiran A1</p>	<p>-7/2/25-75 ( 8 ) (P2)</p> <p>LAMPIRAN A1</p> <p><b>WALL SYSTEM</b></p> <p>RBM/MODEL: RBM WALL SYSTEM 1.8 2 JAM (NON-LOAD BEARING) Total thickness : 100mm (Compressive strength: 13.8N/mm<sup>2</sup>)</p> <p>RBM BUILDING MACHINERY SDN BHD INTEGRITI 120 MINIT &amp; INSULASI 120 MINIT Hose stream test - LULUS SIRIM 2018FE0863 (12/12/2018)</p> <p>PEMASANGAN PERLU MEMATUHI UBBL 1984, SPESIFIKASI UJIAN SERTA SYARAT-SYARAT TAMBAHAN SEPERTI DI LAMPIRAN A2.</p> <p>Tempoh sah perakuan: 28/12/2021 hingga 27/12/2023 Permohonan pembaharuan sijil sila rujuk Lampiran A3.</p>
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## 5.3.4 SIRIM TEST REPORT RBM WALL SYSTEM DENSITY 1800 (NON-LOAD BEARING)

**SIRIM QAS International Sdn. Bhd.** (410334-X)  
No. 1, Persiaran Dato Menteri, Section 2, P.O. BOX 7035,  
Jalan Pagar, 50450, Kuala Lumpur, Malaysia.  
Tel: 03-55446252 Fax: 03-55446272  
www.sirim-qas.com.my

**SIRIM QAS INTERNATIONAL**

**TEST REPORT**

REPORT NO.: 2018FE0863 PAGE: 1 OF 19

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**THIS TEST REPORT IS ISSUED IN SECURED PDF SOFTCOPY**

**Applicant**  
: RBM BUILDING MACHINERY SDN. BHD.  
Lot 108, Lorong Senawang 4/3,  
Senawang Industrial Estate,  
70450 Seremban,  
Negeri Sembilan.  
(Attn: Mr. Seng Beng)

**Product**  
: RBM Wall System 1.8 (Non-load Bearing)

**Reference Standard/ Method of test**  
: BS 476: Part 22: 1987  
Methods for determination of the fire resistance of non-load bearing elements of construction.  
Clause 5 - Determination of fire resistance of partition.  
Clause 6 - Test using the test methodology given in ASTM Standard E2226-10: Standard Practice for Application of Hose Stream.

**Description of test specimen**  
: Trademark: RBM


**Date Received**  
: 08 AUGUST 2018


**Job No.**  
: J20181440507


**Overall test result**  
: **Fire Resistance Test**  
Integrity : 120 minutes  
Insulation : 120 minutes  
Hose Stream Test

The test specimen meets with the requirements.

**Approved Signatory**

  
(SHARIFAH NUR BADARIAH)  
Senior Testing Executive

  
(AZMI MUSA)  
Head  
Fire Protection Section  
Testing Services Department



**LAB (Seremban) SDN. BHD.** (Reg No: 360897-A)  
In, Soil & Concrete Specialists.  
Lot 15, Seremban Tiga, 70300 Seremban,  
Negeri Sembilan.  
Tel: 06-606-531129 Fax: 06-606-531129  
lab@lab-sdn-bhd.com Website: www.godas-sdn-bhd.com

**CUSTOMER COPY**  
No: 056280


**STRENGTH REPORT FOR CONCRETE CUBE TEST**  
(B.S 1881 : Part 116 : 1983)

Cube Size : 100mm x 100mm x 100mm

Proportion of Mix :  
Water Cement Ratio :  
Slump :  
Type of Cement :  
Fine Aggregate :  
Coarse Aggregate :  
Admixture (if any) :  
Concrete Cube Prepared by :

Date Tested	Age (Days)	Mode of failure	Density Kg/m <sup>3</sup>	Load (kN)	Strength N/mm <sup>2</sup>
06.12.16	28		1700	1.7	162.5
AVERAGE : 16.25					

**Signature & Stamp**

  
IR CHUAH LAM SENG  
LAB (Seremban) SDN. BHD.  
MALAYSIA

Note : 1 N/mm<sup>2</sup> = 145 Psi

**LAB (Seremban) SDN. BHD.** (Reg No: 360897-A)  
In, Soil & Concrete Specialists.  
Lot 15, Seremban Tiga, 70300 Seremban,  
Negeri Sembilan.  
Tel: 06-606-531129 Fax: 06-606-531129  
lab@lab-sdn-bhd.com Website: www.godas-sdn-bhd.com


**STRENGTH REPORT FOR CONCRETE CUBE TEST**  
(B.S 1881 : Part 116 : 1983)

Cube Size : 100mm x 100mm x 100mm

Proportion of Mix :  
Water Cement Ratio :  
Slump :  
Type of Cement :  
Fine Aggregate :  
Coarse Aggregate :  
Admixture (if any) :  
Concrete Cube Prepared by :

Date Tested	Age (Days)	Mode of failure	Density Kg/m <sup>3</sup>	Load (kN)	Strength N/mm <sup>2</sup>
06.12.16	28		1700	1.7	162.5
AVERAGE : 16.25					

**Signature & Stamp**

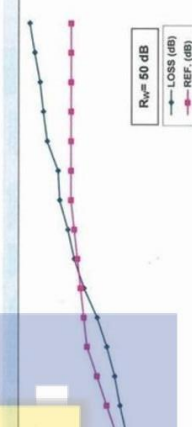
  
IR CHUAH LAM SENG  
LAB (Seremban) SDN. BHD.  
MALAYSIA

Note : 1 N/mm<sup>2</sup> = 145 Psi

**Sound Reduction from frequency of 100 Hz to 5000 Hz**

Sound Reduction Index (dB)	Reference (dB)
38.4	31
33.6	34
36.8	37
36.9	40
39.1	43
40.6	46
43.1	49
45.8	50
49.8	51
52.9	52
54.3	53
57.5	54
57.9	54
61.3	54
62.5	54
63.5	54
65.1	54
66.6	54

50 dB



50 dB

Legend: R<sub>w</sub> = 50 dB, LOSS (dB), REF. (dB)


**1: Sound Reduction from frequency of 100 Hz to 5000 Hz**

0 250 315 400 500 630 800 1000 1250 1600 2000 2500 3150 4000 5000 Hz

1/3 Octave Center Frequency (Hz)

1/3 Octave Sound Reduction Index for frequency of 100 Hz to 5000 Hz

09 FEB 2015





## 5.4 RBM WALL SYSTEM DENSITY 2100

### 5.4.1 BOMBA CERTIFICATE RBM WALL SYSTEM DENSITY 2100

0-712/9-451 (19) (P8)	LAMPIRAN A1
<b>WALL SYSTEM</b> (RBM SHEAR WALL SYSTEM 2.1) 2 HOURS (LOADBEARING)	
JENAMA : RBM MODEL : RBM WALL SYSTEM 2.1 (RBM CONCRETE) NOMINAL THICKNESS : 100 mm RBM BUILDING MACHINERY TRADING SDN BHD (639526-P)	SIRIM 2013FE0352 (10/10/2013), SIRIM 2013CBD135 (10/09/2013), SIRIM 2018FE0041 (23/01/2018) & SIRIM 2018CBD007 (17/01/2018)
INTEGRITI : 180 MINIT INSULASI : 161 MINIT LOAD BEARING CAPACITY : 180 MINIT	PEMASANGAN HENDAKLAH MEMATUHI SPESIFIKASI SERTIMANA DALAM LAPORAN UJIAN DAN UBBL 1984 SERTA PERLU MEMATUHI SYARAT-SYARAT TAMBAHAN SEPERTI DI LAMPIRAN A2 & A3.
ah perakuan: 06/03/2022 hingga 06/03/2024	

No. Fail: JBPM.JP.RNP: 700-712/9-451 (19) (PEMBAHARUAN: KELAPAN)	<b>SIJIL PEPASANGAN KESELAMATAN KEBAKARAN</b>	APPROVAL CERTIFICATE	Jabatan Bomba dan Penyelamat Malaysia dengan ini memperakukan Fire and Rescue Department of Malaysia hereby certify	<b>DRY WALL / DRYWALL CONSTRUCTION</b> (MODEL: RBM WALL SYSTEM 2.1)	Berdasarkan Piawaian Complying with	BS 476: PART 22: 1987 & ASTM E2226-10	Syarikat Berdaftar Registered company	<b>RBM BUILDING MACHINERY TRADING SDN BHD</b> (639526-P) Lot 108, Lorong Senawang 4/3 Senawang Industrial Estate 70450 Seremban Negeri Sembilan Darul Khusus	Tempoh sah perakuan: 06/03/2022 hingga 06/03/2024	(PKPJ) KAMARUZAMAN MALIK ABDULLAH Pengarah Bahagian Perancangan dan Penyelidikan b.p. Ketua Pengarah Jabatan Bomba dan Penyelamat Malaysia	Tarikh: 19 April 2022
---	---	----------------------	--	--	--	---------------------------------------	--	--	---	--	-----------------------

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



## 5.4.2 SIRIM TEST REPORT RBM WALL SYSTEM DENSITY 2100

**SIRIM QAS International Sdn. Bhd.**  
No. 1, Persiaran Dato Menteri, 50, Box 7035, Seksyen 2, 40700 Shah Alam,  
Selangor Darul Ehsan, Malaysia. Tel: 03-55446455 Fax: 03-55446454  
http://www.sirim.my (Company No: 410334-X)

**STANDARDS**  
MS ISO/IEC 17025  
TESTING  
SUMI NO. 231

**TEST REPORT**  
REPORT NO.: 2013FE0352 PAGE: 1 OF 24

This Test Report refers only to samples submitted by the applicant to SIRIM QAS International Sdn. Bhd. and tested by SIRIM QAS International Sdn. Bhd. This report shall not be reproduced or used in full and the material herein shall not be relied upon for conditions to the use of the product without approval from Managing Director SIRIM QAS International Sdn. Bhd. Please refer to the Conditions to the Use of Test Report.

**Applicant/Manufacturer**  
RBM BUILDING MACHINERY TRADING S/B  
Lot 108, Lorong Senawang 4/3,  
Senawang Industrial Estate,  
70460 Seremban,  
Negeri Sembilan Darul Khusus  
(Attn.: Dato' Dr. Goh Chua Woo)

**Product**  
RBM Shear Wall System (Load Bearing)

**Reference Standard/Method of Test**  
a. BS 476: Part 21: 1987  
b. Methods for determination of the fire resistance of load bearing elements of construction. Clause 8 – Determination of the fire resistance of walls  
Standard Practice for Application of Hose Stream

**Description of test specimen**  
A symmetrical load bearing RBM Shear Wall System was constructed by in-situ process at the test frame on 24<sup>th</sup> July 2013. The overall size of the RBM Shear Wall System during the test was found to be 3015 mm (h) x 3860 mm (w) x 125 mm (t).  
Brand: RBM Shear Wall System  
Rating: 2 Hours

**Date of test**  
27.08.2013

**Date received**  
10.05.2013

**Job No / Ref No.**  
J20131440200/SOAS/FPS/15/1-3

**Test Results**  
**Fire Resistance Test**  
Based on the test conducted, the RBM Shear Wall System satisfied the requirements of the BS 476: Part 21: 1987 for the period stated below  
**Loadbearing capacity** : 130 minutes  
**Integrity** : 130 minutes  
**Insulation** : 130 minutes

**Issued date**  
10 OCT 2013

**Approved Signatories:**  
ABDULLAH SYAHRIL MAT JANI  
Testing Executive

**ROHAYA IBRAHIM**  
Head  
Fire Protection Section  
Testing Services Department  
SIRIM QAS International Sdn. Bhd.

**GEOLAB (Seremban) SDN. BHD.** (Reg. No.: 39087-AJ)  
Foundation, Soil & Concrete Specialists  
No. 531, Jalan Seremban Tiga 15, Seremban Tiga, 70300 Seremban,  
Negeri Sembilan Darul Khusus: 1439  
E-mail: geolab@geolab.com.my Website: www.geolab-sdn-bhd.com

**CUSTOMER COPY**  
No: 103258

**SSIVE STRENGTH REPORT FOR CONCRETE CUBE TEST**  
(B.S 1081: Part 116: 1983)

Cube Size: 150mm x 150mm x 150mm

Proportion of Mix: 1:1.5:3

Water Cement Ratio: 0.45

Slump: 210

Flow Diameter 25°: 210

Type of Cement: CEMENT, Q.DUST, E. FLOW, WATER

Fine Aggregate: 0.075mm

Coarse Aggregate: 0.075mm

Admixture (If any):

Concrete Cube Prepared by: RBM BUILDING MACHINERY TRADING S/B

Date Cast	Date Tested	Age (Days)	Mode of failure	Density Kg/m <sup>3</sup>	Strength Load (kN)	Strength N/mm <sup>2</sup>
24.08.2013	21.08.2013	28		2282	7.6	36.00
(Signature & Stamp)						
AVERAGE : 36.00						

Figure 1-13: Series compressive strength (f<sub>cu</sub> = 36.00 N/mm<sup>2</sup>)  
Note: 1 N/mm<sup>2</sup> = 145 Psi

Concrete cube test  
Witness: [Signature]  
for GEOLAB (Seremban) SDN. BHD.  
E/291

**15CE0730** PAGE: 5 OF 5

only to samples submitted by the applicant to SIRIM QAS International Sdn. Bhd. and tested by SIRIM QAS International Sdn. Bhd. This report shall not be reproduced or used in full and the material herein shall not be relied upon for conditions to the use of the product without approval from Managing Director SIRIM QAS International Sdn. Bhd. Please refer to the Conditions to the Use of Test Report.

**RBM WALL SYSTEM 2.1 (SHEAR WALL SYSTEM WITH LOAD BEARING)**  
Density : 2100 Kg/m<sup>3</sup>  
Temperature = 28.4°C Humidity = 71.8 %

**Table 1: Sound Reduction from frequency of 100 Hz to 5000 Hz**

f (Hz)	Sound Reduction Index (dB)	Reference (dB)
100	34.2	32
125	34.2	35
160	37.7	38
200	37.3	41
250	40.1	44
315	42.4	47
400	45.2	50
500	46.6	51
630	46.1	52
800	51.7	54
1000	56.6	55
1250	57.9	55
1600	59.5	55
2000	61.3	55
2500	63.3	55
3150	63.6	55
4000	64.1	55

**51 dB**

**Figure 1-14: Sound reduction index (R<sub>w</sub>) = 51 dB**  
Legend: R<sub>w</sub> = 51 dB, L<sub>W</sub> = 51 dB, REF = 51 dB

abulated data of Sound Reduction Index for frequency of 100 Hz to 5000 Hz  
14 MAY 2015  
SIRIM QAS International Sdn. Bhd.



## 5.5 RBM WALL SYSTEM G20

### 5.5.1 BOMBA CERTIFICATE RBM WALL SYSTEM G20 (LOAD BEARING)

<p>No. Fail: JBPM.IP.RNP: 700-7/2/25-101 (5) (PEMBAHARUAN: PERTAMA)</p> <p><b>SIJIL PEPASANGAN KESELAMATAN KEBAKARAN</b></p> <p><b>APPROVAL CERTIFICATE</b></p> <p>Jabatan Bomba dan Penyelamat Malaysia dengan ini memperakukan Fire and Rescue Department of Malaysia hereby certify</p> <p><b>SISTEM DINDING / WALL SYSTEM (MODEL: RBM CONCRETE G20)</b></p> <p>Berdasarkan Piawaian Complying with</p> <p>BS 476: PART 21: 1987, MS EN 12390-3: 2012 &amp; MS EN 12390-7: 2012</p> <p>Syarikat Berdaftar Registered company</p> <p><b>RBM BUILDING MACHINERY SDN BHD (1096959-D)</b> Lot 107, Senawang Industrial Estate 70450 Seremban Negeri Sembilan Darul Khusus</p> <p>Tempoh sah perakuan: 25/02/2022 hingga 25/02/2024</p> <p>(PKPJIB KAMARULZAMAN MALIK ABDULLAH) Pegawai Bahagian Perancangan dan Penyelidikan b.p. Ketua Pengarah Jabatan Bomba dan Penyelamat Malaysia</p> <p>Tarikh: 17 Februari 2022</p> <p><b>** Peringatan:</b> Sila patuhi sepenuhnya syarat-syarat dan had kegunaan seperti dalam Lampiran A1</p>	<p>10-7/2/25-101 (5) (P1)</p> <p>LAMPIRAN A1</p> <p><b>SISTEM DINDING / WALL SYSTEM (LOAD BEARING) (2 JAM)</b></p> <p>MODEL : RBM CONCRETE G20 MEASURED DENSITY : 1926 kg/m<sup>3</sup> MASS PER UNIT AREA : 193 kg/m<sup>2</sup> (IN AIR-DRIED CONDITION)</p> <p>INTEGRITI : 120 MINIT INSULASI : 120 MINIT</p> <p>RBM BUILDING MACHINERY SDN BHD (1096959-D) SIRIM 2020CBD0066 (10/12/2020) &amp; SIRIM 2021FE0041 (27/01/2021)</p> <p>PEMASANGAN HENDAKLAH MEMATUHI SPESIFIKASI UJIAN DAN UBBL 1984 SEPERTIMANA DALAM LAPORAN UJIAN SERTA PERLU MEMATUHI SYARAT-SYARAT TAMBAHAN SEPERTI DI LAMPIRAN A2 &amp; A3.</p> <p>Tempoh sah perakuan: 25/02/2022 hingga 25/02/2024</p>
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## 5.6 RBM WALL SYSTEM G25

### 5.6.1 BOMBA CERTIFICATE RBM WALL SYSTEM G25 (LOAD BEARING)

700-712/25-103 (4) 21 (P1)	LAMPIRAN A1
: SISTEM DINDING / WALL SYSTEM (LOAD BEARING) (2 JAM)	
: MODEL : RBM CONCRETE G25 TOTAL THICKNESS : 100 mm COMPRESSIVE STRENGTH : 29.7 N/mm <sup>2</sup>	
: INTEGRITI : 120 MINIT INSULASI : 120 MINIT	
: RBM BUILDING MACHINERY TRADING SDN BHD (639526-P)	
: SIRIM 2021FE0042 (27/01/2021) & SIRIM 2021CBD0001 (08/01/2021)	
: PEMASANGAN HENDAKLAH MEMATUHI SPESIFIKASI SEPERTIMANA DALAM LAPORAN UJIAN DAN UBL 1984 SERTA PERLU MEMATUHI SYARAT-SYARAT TAMBAHAN SEPERTI DI LAMPIRAN A2 & A3.	
sah perakuan: 30/03/2022 hingga 30/03/2024	

No. Fail: JBPM.IP.RNP: 700-712/25-103 (4)  
(PEMBAHARUAN: PERTAMA)

## SIJIL PEPASANGAN KESELAMATAN KEBAKARAN

APPROVAL CERTIFICATE

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

**SISTEM DINDING / WALL SYSTEM**  
(MODEL: RBM CONCRETE G25)

Berdasarkan Piawaian  
Complying with

BS 476: PART 21: 1987 & ASTM E2226-10

Syarikat Berdaftar  
Registered company

**RBM BUILDING MACHINERY TRADING SDN BHD (639526-P)**  
Lot 108, Lorong Senawang 4/3  
Senawang Industrial Estate  
70450 Seremban  
Negeri Sembilan Darul Khusus

Tempoh sah perakuan: 30/03/2022 hingga 30/03/2024


(PKPJ B KAMARULZAMAN MALIK ABDULLAH)  
Pegawai  
Bahagian Perancangan dan Penyelidikan  
b.p. Ketua Pengarah  
Jabatan Bomba dan Penyelamat Malaysia

Tarikh: 19 April 2022

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



## 5.7 WATER ABSORPTION TEST REPORT



**CLIENT :**  
**TAJUK PROJEK :**  
**UJIAN UNTUK :**  
**TARIKH BANCUNAN :**  
**TARIKH UJIAN :**

MS 76.1972

Foundation, Soil & Concrete Specialists  
845, Lot 64358, Taman Sejodren, Jalan Tampin Lama, 73100 Seremban, N. Sembilan  
Tel: 06-4311138 Fax: 06-4311129

**RBM BUILDING MACHINERY TRADING SDN. BHD.**


Resapan Air
23.05.2009
22.06.2009


Nombor	Berat Awal(gm) <small>(selepas dikeringkan dalam oven)</small>	Berat Akhir(gm) <small>(selepas rendam dalam air)</small>	Kadar Resapan	Berat sebelum ujian(gm)
A2	7107	7454	4.88	7375
B2	7139	7482	4.80	7399

**KADAR RESAPAN =**

$$\frac{(\text{BERAT AKHIR} - \text{BERAT AWAL})}{\text{BERAT AWAL}} \times 100\%$$

**X 100%**

  
**HJ. ABD HOLED ISHAK**  
B. Sc (Hons) Eng  
Manager  
NIP: 519-204148



73



## 6.0 CERTIFICATE

MALAYSIA		MALAYSIA		MALAYSIA	
CERTIFICATE OF GRANT OF A PATENT		CERTIFICATE OF GRANT OF A PATENT		CERTIFICATE OF GRANT OF A PATENT	
<p>In accordance with Section 31 (2) of the Patents Act 1983 a patent for an invention having grant number MY-187368-A has been granted to RBM BUILDING MACHINERY TRADING SDN BHD, in respect of an invention having the following particulars:</p>		<p>Section 31(2) of the Patents Act 1983 a patent for an invention having 133290 - A has been granted to GOH CHUA WOO in respect of an invention having the following particulars:</p>		<p>Section 31(2) of the Patents Act 1983 a patent for an invention having 133290 - A has been granted to GOH CHUA WOO in respect of an invention having the following particulars:</p>	
TITLE : A CONCRETE PREPARATION AND SPRAYING MACHINE		TITLE : INTEGRATED MORTAR AND/OR CONCRETE APPLYING MACHINE		TITLE : APPARATUS FOR APPLYING MORTAR OR CONCRETE TO A SURFACE BY SPRAYING	
FILING DATE : 23 JULY 2019		FILING DATE : 13 AUGUST 2008		FILING DATE : 14 JUNE 2000	
PRIORITY DATE : NONE		PRIORITY DATE : NONE		PRIORITY DATE : NONE	
NAME OF INVENTOR : GOH CHUA WOO GOH CHEE CHIN		NAME OF INVENTOR : GOH CHUA WOO		NAME OF INVENTOR : GOH CHUA WOO GOH THEAM COO	
PATENT OWNER : RBM BUILDING MACHINERY TRADING SDN BHD LOT 107&108, LORONG SENAWANG 4 SENAWANG INDUSTRIAL ESTATE 70450 SEREMBAN NEGERI SEMBILAN MALAYSIA		PATENT OWNER : RBM BUILDING MACHINERY TRADING SDN BHD LOT 108, SENAWANG INDUSTRIES ESTATE 70450 SEREMBAN NEGERI SEMBILAN MALAYSIA		PATENT OWNER : GOH CHUA WOO SD 24, SENAWANG JAGHIT INDUSTRIAL ESTATE 4/5 MILES, JALAN TAMPIN 70450 SEREMBAN, NEGERI SEMBILAN MALAYSIA	
DATE OF GRANT : 22 SEPTEMBER 2021		DATE OF GRANT : 30 AUGUST 2013		DATE OF GRANT : 31 OCTOBER 2007	
DURATION OF PATENT : 23 JULY 2019 UNTIL 23 JULY 2039		DURATION OF PATENT : 30 AUGUST 2013 UNTIL 30 AUGUST 2033		DURATION OF PATENT : 31 OCTOBER 2007 UNTIL 31 OCTOBER 2037	
END OF PROTECTION : 21 SEPTEMBER 2022 (SUBSEQUENT ANNUAL FEE SHALL FOLLOW AS STATED IN THE SCHEDULE OF FEES AT THE BACK OF THIS PAGE)		END OF PROTECTION : 30 AUGUST 2033 (SUBSEQUENT ANNUAL FEE SHALL FOLLOW AS STATED IN THE SCHEDULE OF FEES AT THE BACK OF THIS PAGE)		END OF PROTECTION : 31 OCTOBER 2037 (SUBSEQUENT ANNUAL FEE SHALL FOLLOW AS STATED IN THE SCHEDULE OF FEES AT THE BACK OF THIS PAGE)	
<p>Dated this 22 day of SEPTEMBER 2021</p> <p>(ZULKARNAIN MUHAMMAD) Deputy Registrar of Patents MALAYSIA</p>		<p>(SHAMSAH BINTI KAMARUDDIN) for Registrar of Patents MALAYSIA</p>		<p>(MOHD. AMRAN BIN ABAS) for Registrar of Patents MALAYSIA</p>	

PATENT GRANTED CERTIFICATE





Perbadanan Harta Intelektual Malaysia  
Intellectual Property Corporation of Malaysia

TRADE MARKS ACT 1976  
TRADE MARKS REGULATIONS 1997  
CERTIFICATE OF REGISTRATION  
(Regulation 56)



Trade mark no : 06015101  
To : RBM BUILDING MACHINERY TRADING SDN. BHD.

I HEREBY CERTIFY THAT under the provisions of the Trade Marks Act 1976 and the Trade Marks Regulations 1997, the above-numbered trade mark has been registered in your name as proprietor of the said trade mark in the Register for a period of ten (10) years from 24/08/2006 to 24/08/2016 in Class 7 in respect of the following goods:

MACHINE FOR APPLYING MORTAR OR CONCRETE TO A SURFACE, SPRAY PLASTERING MACHINE AND PLASTERING MACHINE USED FOR BUILDING CONSTRUCTION; ALL INCLUDED IN CLASS 07.



(ABDUL AZIZ B. ISMAIL)  
for REGISTRAR OF TRADE MARKS  
MALAYSIA  
DATE ISSUED: 14/09/2008



PERBADANAN HARTA INTELEK MALAYSIA  
INTELLECTUAL PROPERTY CORPORATION OF MALAYSIA

AKTA REKA BENTUK PERINDUSTRIAN 1996  
PERATURAN-PERATURAN REKA BENTUK PERINDUSTRIAN 1999  
(Peraturan 20)



PERAKUAN PENDAFTARAN  
SUATU REKA BENTUK PERINDUSTRIAN

Nombor Pendaftaran : MY 07-01001-Q101  
Tarikh Pendaftaran : 19 Julai 2007

Tarikh Penerimaan : 19 Julai 2007  
Tarikh Pemberian Perakuan : 21 Mac 2008

Barang atau set Barang : PLASTERING MACHINE  
yang berkaitan dengannya  
Reka Bentuk Perindustrian  
ini didaftarkan

ini disahkan bahawa,  
t dan tertakik kepada peruntukan Akta Reka Bentuk Perindustrian 1996 dan  
an-Peraturan Reka Bentuk Perindustrian 1999, Reka Bentuk Perindustrian atau  
cetak-Reka Bentuk Perindustrian yang representasi atau representasi-representasi  
ak, telah atau pun didaftarkan pada tarikh pendaftaran di atas, atas nama  
BUILDING MACHINERY TRADING SDN. BHD. di alamat NO. SD24,  
WANG LIGHT INDUSTRIAL ESTATE, 4<sup>th</sup> MILES, JALAN TAMPIN, 70450  
IRAN, NEGERI SEMBILAN, MALAYSIA berkenaan dengan suatu  
onan pendaftaran Reka Bentuk Perindustrian



(MOHD. FAUZUDIN BIN MOHD. SHARUDIN)  
b.p. Pendaftaran  
Reka Bentuk Perindustrian Malaysia

BRAND REGISTERED CERTIFICATE

INDUSTRIAL DESIGN CERTIFICATE



 <h2>CERTIFICATE OF REGISTRATION</h2> <p>Certificate No. : Q-08321 Initial Certification Date : 28 April 2008 Valid Until : 25 April 2023</p> <p>This is to certify that the management system of</p> <p><b>RBM BUILDING MACHINERY TRADING SDN BHD</b> Lot 108, Lorong Senawang 4/3, Senawang Industrial Estate, 70450 Seremban, Negeri Sembilan.</p> <p>has been found to conform to the Quality Management System standard :</p> <p><b>ISO 9001:2015</b></p> <p>approval is hereby granted for registration providing the rules and conditions related to certification are observed at all time.</p> <p>Scope of Certification :</p> <p>a. Design, Manufacturing and Trading of Construction Machinery b. Fabricate, Assemble and Install Cast In Situ Concrete Wall / Wall Panel</p> <p>*Permitted Exclusion 8.5.3 Property Belonging To Customers or External Providers</p> <p>Place and date issued : <b>BANDAR BARU BANGI, SELANGOR; 17 November 2021</b></p> <p><b>HAJI AYOP BIN SALLEH</b> Chairman</p> <p><b>SYAHSUL ZAHRI BIN ZAINUDIN</b> Chief Executive Officer</p> <p><small>Niosh Certification Sdn Bhd   A wholly owned subsidiary of NIOSH Malaysia 7th Floor NIOSH Tower, Lot 1, Jalan 15/1, Section 15, 43500 Bandar Baru Bangi, Selangor Darul Ehsan, MALAYSIA www.nioshcert.com.my</small></p>	 <p><b>KEMENTERIAN KEWANGAN MALAYSIA</b> <b>SJIL AKUAN PENDAFTARAN SYARIKAT</b></p> <p>NO. SJIL : K633518440G3061177 NO. RUJUKAN PENDAFTARAN : 357-02144986 TEMPOH SAH LAKU : 25/10/2021 - 15/01/2025</p> <p>Bahawa dengan ini diperakui syarikat : <b>RBM BUILDING MACHINERY TRADING SDN. BHD. ( 639526-P )</b> LOT 108 SENAWANG INDUSTRIAL ESTATE SEREMBAN 70450 PEKAN SENAWANG NEGERI SEMBILAN, MALAYSIA</p> <p>Telah berdaftar dengan Kementerian Kewangan Malaysia dalam bidang bekalan/perkhidmatan di bawah sektor, bidang dan sub-bidang seperti di Lampiran A. Kelulusan ini adalah tertakluk kepada syarat-syarat seperti yang dinyatakan di Lampiran B. Individu yang diberi kuasa oleh syarikat bagi urusan perolehan Kerajaan adalah seperti berikut :</p> <p><b>DATO' DR GOH CHUA WOO</b> tt 590127015959 MANAGING DIRECTOR</p> <p><b>DATO' ZAMZURI BIN ABDUL AZIZ</b> Perbendaharaan Malaysia Semananjung b.p. Ketua Setiausaha Perbendaharaan Kementerian Kewangan Malaysia</p> <p>Tarikh Berdaftar Dengan Kementerian Kewangan Malaysia : 25/10/2021</p> <p>(Siji ini adalah cetakan komputer dan tidak memerlukan tandatangan)</p>
---	--

CERTIFICATE OF MINISTRY OF FINANCE MALAYSIA

ISO CERTIFICATE 9001:2015



## CIDB IBS CERTIFICATE



**CIDB**  
MALAYSIA

### IBS MANUFACTURER & PRODUCT ASSESSMENT & CERTIFICATION IMPACT

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

**Merupakan :**  
*Is :*

**PENGELUAR**

**Lokasi Kilang :**  
*Factory Location :*

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

**SISTEM ACUAN BERULANG:**  
**- RBM FORMWORK SYSTEM**

**No. Siri : 10521**  
*Serial No*

**RBM BUILDING MACHINERY TRADING SDN. BHD. (639526-P),**  
**LOT 108, LORONG SENAWANG 4/3,**  
**SENAWANG INDUSTRIAL ESTATE,**  
**70450 SEREMBAN, NEGERI SEMBILAN.**

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

**SISTEM ACUAN BERULANG:**  
**- RBM FORMWORK SYSTEM**

**No. Laporan :**  
*Report No. :*

**FNS300921IBS10521**

**Tarikh Dikeluarkan :**  
*Issue Date :*

**15 OCTOBER 2021**

**Sah Sehingga :**  
*Valid Until :*

**15 APRIL 2022**

**Kategori :**  
*Category :*

**PENGELUAR**

**Standard Rujukan :**  
*Reference Standard :*

**TECHNICAL OPINION**

**CIDB IBS SDN BHD**  
Lot 8, Jalan Chan Sow Lin  
55200 Kuala Lumpur  
Malaysia

TEL: 03-92816909  
FAX: 03-92815870

Laman Web  
[www.ibscentre.com.my](http://www.ibscentre.com.my)



**DATUK IR. ELIAS ISMAIL**  
Timbalan Ketua Eksekutif I

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



