

# COMPANY PROFILE

2022



Innovative technology that revolutionises the way you live  
promising a sustainable future, today and beyond

@dvyhvmdeckdesign



# ABOUT US

**DVIHVM has years of experience since 2010 in manufacturing and marketing of wood polymer composite products from its inception. We have introduced a revolutionary product, 'Wood Polymer Composite (WPC), an advanced green technology which has been researched and developed by Malaysia Agricultural Research and Development Institute (MARDI)**

The world is moving towards green. Our homes are no longer just a place to stay but rather a place to live, learn and linger. The trend to have a greener home has kept the industry alive, creating more green building and green materials

DVIHVM provide customers with wood based materials that are environmentally sustainable in its design and function. DVIHVM aim to enhance every outdoor or indoor experience for both personal as well as professional use. Each DVIHVM space is carefully crafted with creativity and precise functionality, providing you with an enhanced wood based product design





# PHILOSOPHY & MISSION

It is within our philosophy to be responsible and sensitive to the environment. formation of DVIHVM is regarded as a greener product to meet the increasing demand of wood finishing products without compromising our natural woods.



## COMPANY VISION

We aim to be the best in Wood Polymer Composite technology and aspire to create greener solutions through Research & Development (R&D) for your building requirements.

## VALUE

With our Corporate mission to further expand our market reach globally, we keep close relationship and cooperation with all our clients, partners, institutions and government agencies.

We believe that the production of Wood Polymer Composite would strengthen our support in the upstream activities in Malaysia, providing more opportunities for local farmers in sustaining their livelihood.



# PRODUCT FEATURES

DVIHVM products specialises in high quality wood-plastic composite (WPC) products some of which include, decking, ceiling panels, wall panels as well as made to order WPC products for large quantity request, catered to your signature and personalised requirements.

WPC are sustainable, eco friendly wood plastic composite granule, which is made of wood powder and comes in varies colours. Not only do WPC products keep the high affinity of solid wood flooring but is also waterproof, weatherproof, insect resistant and can withstand being nailed and drilled.



WATERPROOF



WEATHERPROOF



FIRE RETARDANT



NON TOXIC



RECYCLE



ANTI TERMITE



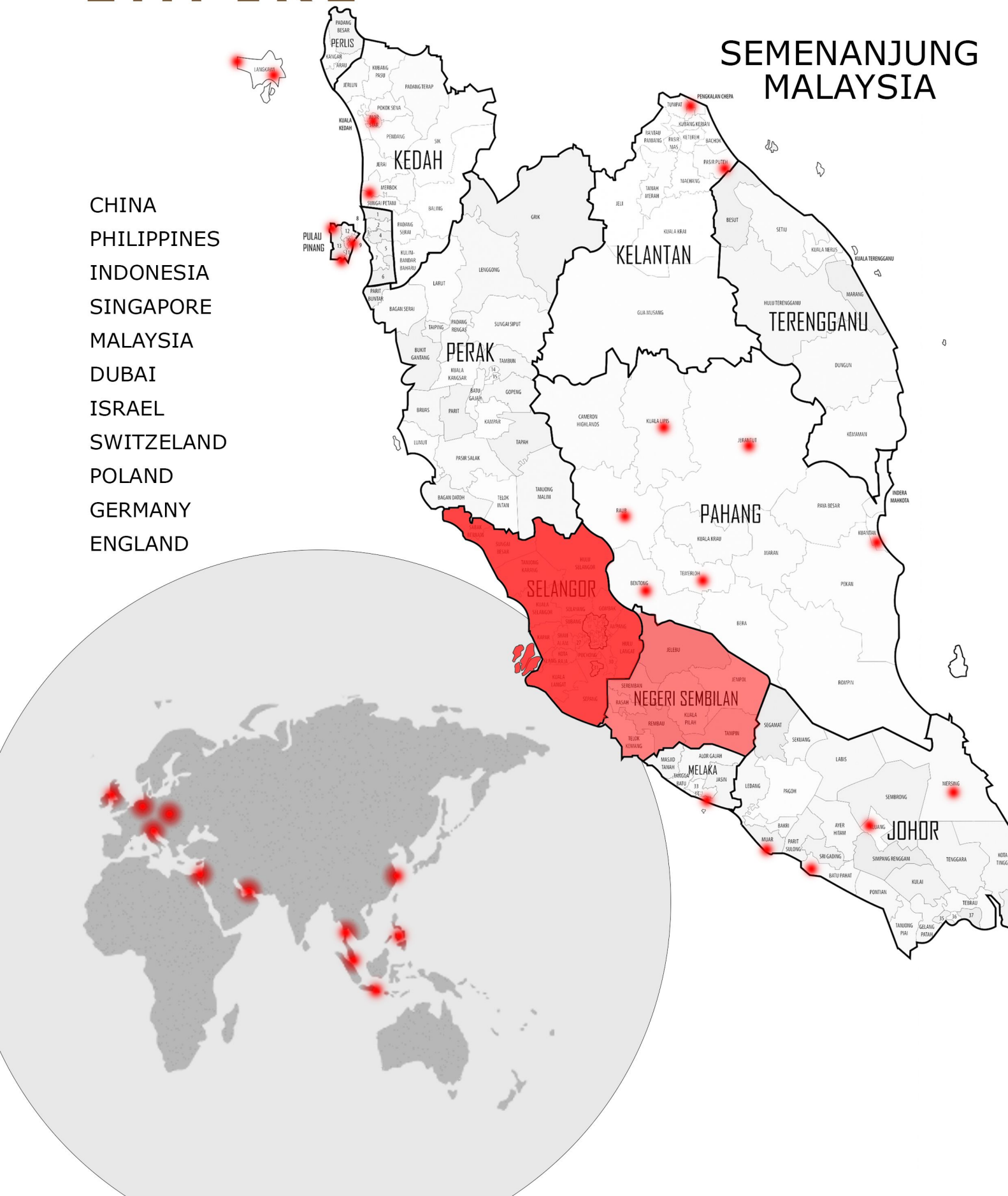
DURABLE



# MARKET EMPIRE

CHINA  
PHILIPPINES  
INDONESIA  
SINGAPORE  
MALAYSIA  
DUBAI  
ISRAEL  
SWITZELAND  
POLAND  
GERMANY  
ENGLAND

SEMI-NEJANJUNG  
MALAYSIA





# TEST REPORT



INSTITUT PENYELIDIKAN PERHUTANAN MALAYSIA  
Forest Research Institute Malaysia (FRIM)  
52109 Kepong, Selangor Darul Ehsan  
Tel : 603-6279 7000 Fax : 603-6273 1314  
Website : www.frim.gov.my



Our Ref: FRIM394/490/5/13/KIL.2 (35) Date: 23rd Oct. 2012

KPC Manufacturing (M) Sdn. Bhd.  
Lot 335(C), Batu 26  
Jalan Sungai Lalang  
Ulu Semenyih  
43500 Semenyih  
Selangor Darul Ehsan  
(Attn.: Mr. Syaiful)

Sir,

## REPORT ON DURABILITY OF WOOD PANEL AGAINST SUBTERRANEAN TERMITES

In reference of your request dated 13<sup>th</sup> August 2012, requesting for accelerated laboratory test for your wood panel samples against subterranean termite, I herewith attached a report on the result of the test.

Also attached is the Customer's Questionnaire form. Please fill it in and return to us either by hand, mail or fax (03-62804620).

Thank you.

"BERKHIDMAT UNTUK NEGARA"

Yours sincerely,

*Rozsaini Kadir*  
(DR. ROSZAINI KADIR)  
Senior Research Officer  
For Director General of FRIM

cc. Dr. Zaihan Jalaluddin  
Head of Biocomposite and Wood Protection Programme

|   |                          |
|---|--------------------------|
| REPORT NO.: FRIM394/490/5/13/KIL.2 (35)   | JOB NO.: WEL/CLS01/08/12 |
| THIS REPORT CONTAINS 5 PAGES  | PAGE 2 OF 5              |
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## REPORT ON DURABILITY OF WOOD PANEL AGAINST SUBTERRANEAN TERMITES

### 1.0 RESULTS AND OBSERVATION

Result of the accelerated laboratory test for durability of wood panel against subterranean termites (*Coptotermes gestroi* Wasmann) compared to rubberwood (untreated) in accordance to ASTM D3345-08 standard is shown in Table 1.

Table 1 Evaluation for durability of wood panel against subterranean termites compared to rubberwood (untreated) during the laboratory test in accordance to ASTM D3345-08 standard

| Sample     | Termite bioassay             |                  |                                |                                    |                                    |
|------------|------------------------------|------------------|--------------------------------|------------------------------------|------------------------------------|
|            | Density (g/cm <sup>3</sup> ) | Weight loss (g)  | Percentage of weight loss (%)  | Average visual rating <sup>a</sup> | Termite mortality <sup>b</sup> (%) |
| Wood Panel | 0.992<br>(0.067)             | 0.012<br>(0.002) | 0.430 <sup>c</sup><br>(0.053)  | 10 <sup>a</sup>                    | 100;<br>Complete                   |
| Rubberwood | 0.685<br>(0.026)             | 0.380<br>(0.059) | 15.463 <sup>c</sup><br>(1.976) | 7 <sup>b</sup>                     | 100;<br>Complete                   |

<sup>a</sup>Each value represents the means of 5 replicates. Values in parentheses are standard deviations.

<sup>b</sup>Termite attack visual rating scale: 0, failure; 4, heavy; 7, moderate attack; penetration; 9, light attack; and 10, sound, surface nibbles permitted.

<sup>c</sup>Termite mortality is based on mean number of termite died (out of 400 total termites in the jar) after four weeks. Rating: 100%, complete; 67-99%, heavy; 34-66%, moderate; 0-33%, slight.

Mean value for percentage of weight loss (%) by the same letter are not significantly (P<0.05) different following ANOVA.



|   |                          |
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Figure 1 Wood panel samples after 4 weeks of termite test. Left: Front view. A rough edge was due to damage during the cutting process. Right: Side view.

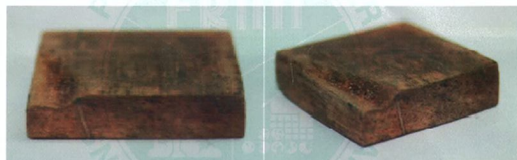


Figure 2 Rubberwood samples after 4 weeks of termite test. Left: Front view. Right: Side view.

|  |   |
|--|---|
| Prepared by<br><i>Zaini Soit</i><br>ZAINI SOIT<br>Research Assistant<br>Wood Entomology Laboratory<br>Date: 23/10/2012 | Approved by<br><i>Dr. Rozsaini Kadir</i><br>DR. ROSZAINI KADIR<br>Senior Research Officer<br>Wood Entomology Laboratory<br>Date: 23/10/2012 |
|--|---|

|   |                          |
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Our Ref : FRIM394/490/5/13/KIL.2 (35)

Issued by : Wood Entomology Laboratory (WEL)

Title : REPORT ON DURABILITY OF WOOD PANEL AGAINST SUBTERRANEAN TERMITES

Applicant & Sponsor by : KPC Manufacturing (M) Sdn. Bhd.  
Lot 335(C), Batu 26  
Jalan Sungai Lalang  
Ulu Semenyih  
43500 Semenyih  
Selangor Darul Ehsan  
(Attn.: En. Syaiful)

Reference Standard / Test Method : ASTM D3345-08 (result interpretation using AWWA E1-09)

Specification of Test Item : Wood Panel (converted to 115 x 305 x 10 mm test block)

Product : -

Received Dates : 13th August 2012

Job No. : WEL/CLS01/08/12

Test Dates : 13/09/2012 - 18/10/2012

Issued Date : 22<sup>nd</sup> October 2012



# TEST REPORT

TEST REPORT: 7191045331-CHM12-TSL\_CR1

Date: 22 OCT 2012 Tel: +65 68851335 Fax: +65 67784301  
Client's Ref: 221400335 Email: sihai.li@tuv-sud-psb.sg

Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.

**SUBJECT**

Evaluation of Toxic Fumes Generated From Material Sample During Burning

**CLIENT**

KPC Manufacturing (M) Sdn Bhd  
37C, Jalan Sungai Long 11/7  
43000 Kajang  
Selangor  
Malaysia

Attn: Mr Zulfairis Zukliffi

**SAMPLE SUBMISSION DATE**

10 Oct 2012

**DESCRIPTION OF SAMPLE**

Eight pieces of material sample labelled as follows were received.

- Dayham Sample

**DATE OF ANALYSIS**

12 Oct 2012 – 22 Oct 2012



TUV SUD PSB

Laboratory:  
TUV SUD PSB Pte Ltd  
No 1 Science Park Drive  
Singapore 118221

Phone: +65 6885 1333  
Fax: +65 6778 4301  
Email: testing@tuv-sud-psb.sg  
www.tuv-sud-psb.sg

Regional Head Office:  
TUV SUD Asia Pacific Pte Ltd  
3 Science Park Drive, #04-01/02  
The Parkway, Singapore 118221

TUV

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TEST REPORT: 7191045331-CHM12-TSL\_CR1  
22 OCT 2012

PSB Singapore

**METHOD OF TEST****Analysis of Pyrolysis and Combustion Gases Generated From the Sample**

The test was conducted according to BS 6853:1999 Annex B, B.1 Mass Based Test Method - NF X 70-100 (2006) Method:

**1.1 Sample Preparation of Test Specimen**

The sample was conditioned at 23°C and 50% Relative Humidity for 48 hours and tested as whole for the following tests.

**1.2 Generation of Pyrolysis and Combustion Gases**

Approximately 1.0 g of the sample was then used for the test in a stream of air at the air flow rate of 120L/hr at 1000°C for 20 minutes in a tube furnace. A further 20 minutes was used to air-flush the apparatus once residue sample was removed from tube furnace.

Toxic fumes collected during the burning were analysed by the following methods:

- Carbon Monoxide and Carbon Dioxide: Directly determined by Horiba Automotive Emission Analyzer
- Hydrogen Cyanide: By Pyridine – Pyrazolone Method
- Others ions: By Ion Chromatography

TEST REPORT: 7191045331-CHM12-TSL\_CR1  
22 OCT 2012

PSB Singapore

**RESULTS:**

Table 1: The Toxic Fumes Results For "Dayham" Sample

| Toxic Fumes Generated                                     | "Dayham"<br>(mg/m <sup>3</sup> of Fire Effluents) | IDLH Values Limits <sup>a</sup><br>(mg/m <sup>3</sup> ) |
|---|---|---|
| 1. Carbon Dioxide, Average<br>(Carbon Dioxide, maximum)   | 1591<br>6078                                      | 73000<br>-  |
| 2. Carbon Monoxide, Average<br>(Carbon Monoxide, maximum) | <200<br>226                                       | 1400<br>-   |
| 3. Hydrogen Fluoride, HF                                  | <5  | 25  |
| 4. Hydrogen Chloride, HCl                                 | <5  | 76  |
| 5. Hydrogen Bromide, HBr                                  | <5  | 101   |
| 6. Sulfur Dioxide, SO <sub>2</sub> <sup>b</sup>           | <5  | 270   |
| 7. Nitrogen Dioxide, NO <sub>2</sub> <sup>c</sup>         | <5  | 38  |
| 8. Hydrogen Cyanide, HCN                                  | <5  | 56  |

<sup>a</sup> The values in Table 1 are the IDLH values of the listed gases (the concentration of the gas in the atmosphere which for an exposure time of 30 mins, is immediately dangerous to life or health) given in the NIOSH Guide [1].

<sup>b</sup> Sulfur Dioxide includes Sulfur trioxide expressed as sulfur dioxide

<sup>c</sup> Nitrogen dioxide includes nitric oxide expressed as nitrogen dioxide


- The above results from the analysis of the toxic fumes generated from the specimen were found to be below the IDLH Value of listed gases.

- The weighted summation index, R, is less than 0.3.

**Remarks**

The weighted summation index R for the sample tested was found to be within the requirement of 1.0 max when tested and assessed according to NF X 70-100 with R calculated in accordance with Annex B of BS 6853:1999.

  
MS TAN SER LING  
TECHNICAL EXECUTIVE

  
for DR LI SIHAI  
A/P / SENIOR CHEMIST  
MICROCONTAMINATION DIAGNOSIS  
CHEMICAL & MATERIALS

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TEST REPORT: 7191045331-CHM12-TSL\_CR1  
22 OCT 2012

PSB Singapore

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July 2011



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# TEST REPORT

## TEST REPORT: 7191020369-CHM11-JS

Date: 23 NOV 2011 Tel: +65 68851312 Fax: +65 67784301  
Client's Ref: Email: yi.zhang@tuv-sud-psb.sg

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PSB Singapore

Choose certainty.  
Add value.

**SUBJECT**

Evaluation of Product For Singapore Green Labelling Purpose - GLS 035 Spec

**CLIENT**

KPC Manufacturing (M) Sdn Bhd  
37C, Jalan Sungai Long 11/7,  
4300 Kajang,  
Selangor Darul Ehsan.

Attention: Mr. Zulfairis

**SAMPLE SUBMISSION DATE**

08 Nov 2011

**DESCRIPTION OF SAMPLE**

Two samples labeled as follows were received.

Sample 1: "KPC Ceiling & Wall Panel", about 1cm x 1cm sizes.  
Sample 2: "KPC Ceiling & Wall Panel", about 50cm x 11cm x 0.4cm.

**DATE OF ANALYSIS**

08 Nov 2011 – 23 Nov 2011



Laboratory:  
TUV SUD PSB Pte. Ltd.  
No. 1 Science Park Drive  
Singapore 118221

Phone: +65-6885 1333  
Fax: +65-6778 8676  
Email: testing@tuv-singapore.sg  
www.tuv-sud.sg  
Co. Reg: 195902267K

Regional Head Office:  
TUV SUD Asia Pacific Pte. Ltd.  
2 Science Park Drive, #04-01/02  
The Far East, Singapore 118223  
TUV

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TEST REPORT: 7191020369-CHM11-JS  
23 NOV 2011

PSB Singapore

**METHOD OF TEST**

- Analysis of Halogenated Solvents and Aromatic Solvents**  
The sample was cut into small pieces and then analyzed by Headspace-Gas Chromatography with Mass Selective Detector (GC-MSD).
- Elemental Analysis for Lead (Pb), Mercury (Hg) and Cadmium (Cd)**  
The sample was digested by inorganic acid, followed by analysis using Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES).
- Elemental Analysis for Hexavalent Chromium (Cr<sup>VI</sup>)**  
The sample was analysed by UV-Vis Spectrometer using 1,5-Diphenylcarbohydrazide as derivatizing agent.

**Formaldehyde Emission Test**

The samples was tested according to ENV 717-1:2004 – Wood-based panels - Determination of formaldehyde release – Part 1: Formaldehyde emission by the chamber method

**Emission Test Condition**

- Chamber Volume : about 1 m<sup>3</sup>
- Temperature : 23±0.5°C
- Relative Humidity : 45± 3% RH
- Air Exchange Rate : n=1 (air exchange rate per hour in the chamber).
- Chamber Loading Ratio : 1.0±0.02 m<sup>3</sup>/m<sup>3</sup> (total exposed surface area of the test specimen divided by the net air volume of the emission test chamber).
- Air Velocity : 0.1 m/s to 0.3 m/s (over the surface of the test specimen).

**RESULTS**

Table 1. Analytical Results for "WPC Modwood Decking, R/No: 52851697C" Sample

| Test item            | Test Result  | Method<br>Detection Limit | GLS035<br>Criteria | Inferred<br>Remark |
|----------------------|--------------|---------------------------|--------------------|--------------------|
| Mercury              | Not Detected | 5 ppm.w/w                 | Not Detected       | Pass               |
| Lead                 | Not Detected | 5 ppm.w/w                 | Not Detected       | Pass               |
| Cadmium              | Not Detected | 5 ppm. w/w                | Not Detected       | Pass               |
| Chromium             | Not Detected | 5 ppm. w/w                | Not Detected       | Pass               |
| Halogenated Solvents | Not Detected | 250 ppm.w/w               | Not Detected       | Pass               |
| Aromatic Solvents    | Not Detected | 250 ppm.w/w               | Not Detected       | Pass               |
| Formaldehyde Release | <0.5 mg/L    | 0.1 mg/L                  | <0.5 mg/L          | Pass               |

JULINE SIM  
TECHNICAL EXECUTIVE

DR ZHANG YI  
PRODUCT MANAGER  
MICROCONTAMINATION DIAGNOSIS  
CHEMICAL & MATERIALS

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TEST REPORT: 7191020369-CHM11-JS  
23 NOV 2011

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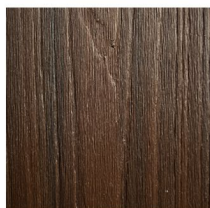


# SEASON DECK

Double Sided  
DS 3413



143mm x 22.5mm x 2800mm



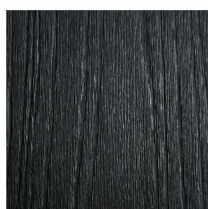
Coffee



Grey



Golden Teak



Ebony

High Strength  
Flame-Retardant  
Anti Corrosion  
Anti Crack  
Anti Color Fading  
Non Toxic  
No Wood Burn  
Insertbite-Proof





# COMPOSITE DECK

Double Sided  
DS 3218



140mm x 25mm x 2800mm



High Strength  
Flame-Retardant  
Anti Corrosion  
Anti Crack  
Anti Color Fading  
Non Toxic  
No Wood Burn  
Insect-Proof



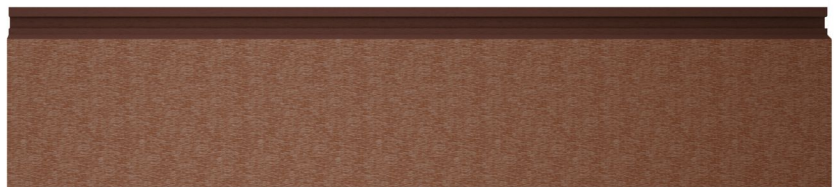




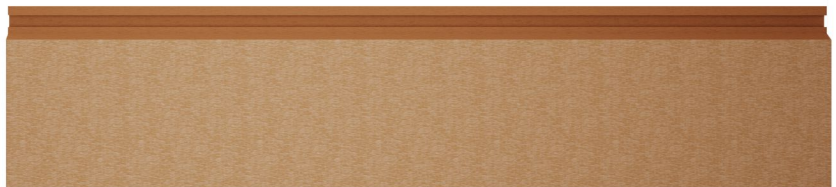
115mm x 12mm x 2800mm

# COMPOSITE PANEL

Single Sided  
DS11512W004



Chocolate

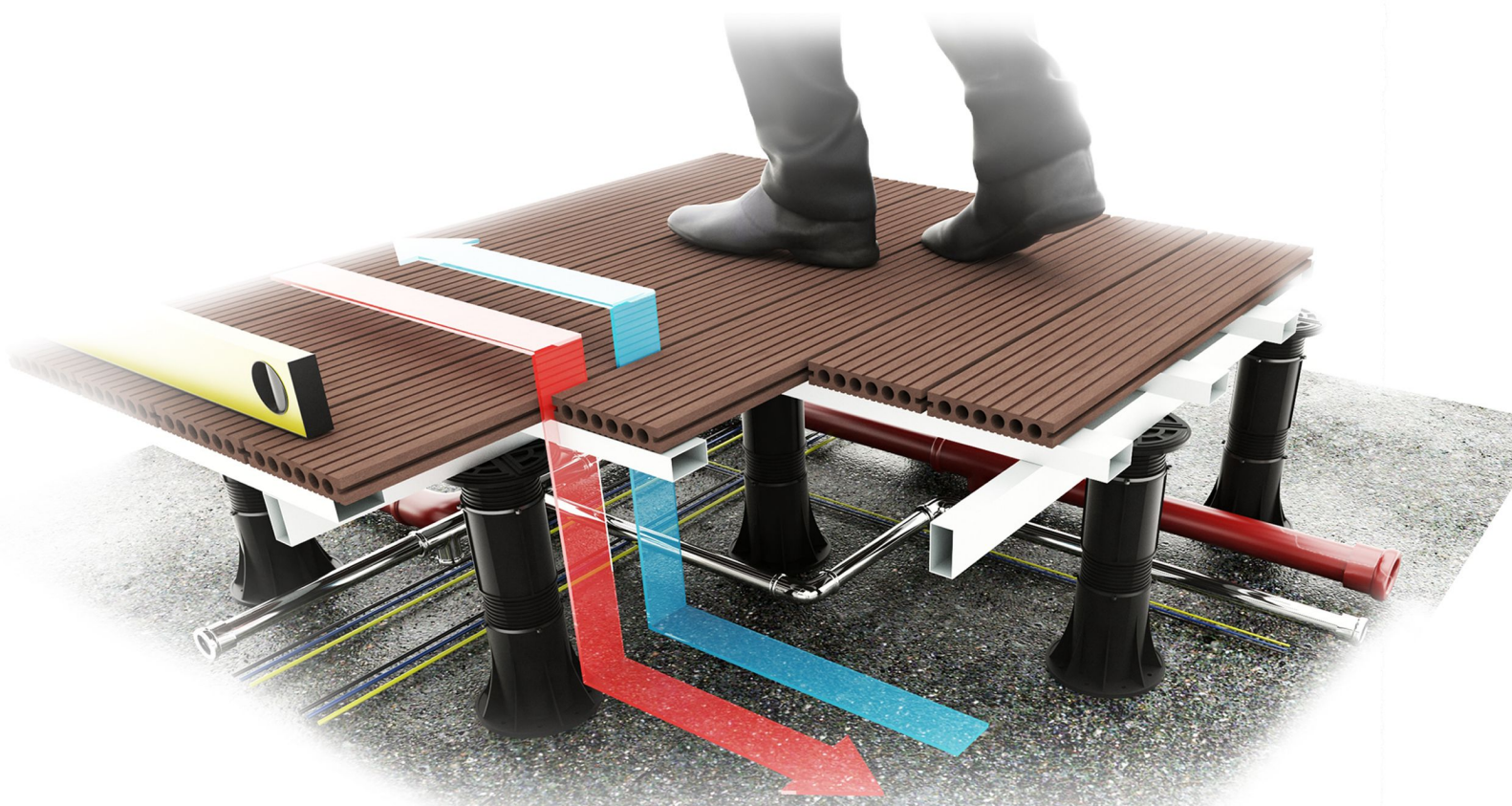


Mix Yellow

High Strength  
Flame-Retardant  
Anti Corrosion  
Anti Crack  
Anti Color Fading  
Non Toxic  
No Wood Burn  
Insertbite-Proof







# PEDESTAL

Pedestal is a heavy duty height and slope adjustable pedestal designed for floor, deck, paver and bearer support. It used in the construction of pedestrian walkways, roof gardens, sun decks, balconies, podium landscape and verandas.

The height are adjustable from 50mm to 1000mm, with use of proprietary EXTENDERS. It can reduce sound transmission, increase heat insulation and allows unsightly services to be concealed within the cavity under the elevated platform allowing easy access when required.





# DECKING INSTALLATION DETAILS



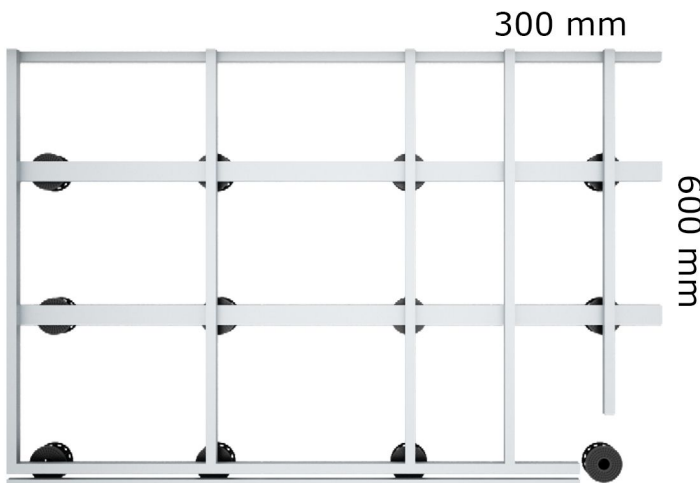
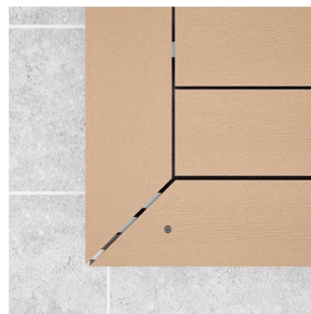
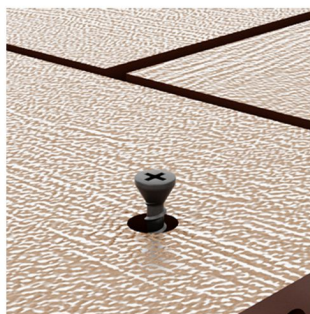
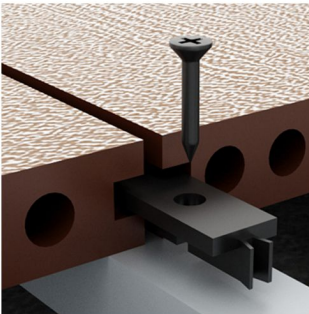
1 DVIHVM Decking

3 Primary Structure  
25mm x 25mm Aluminum Hollow Section

5 Fascia Deck

2 Secondary Structure  
25mm x 25mm Aluminum Hollow Section

4 Pedestal



STEP 1 : Install pedestal with heavy duty adhesive on to the floor. STEP 2 : Install primary strcuture with 25mm x 25mm Aluminum Hollow Section. STEP 3: Install secondary structure with 25mm x 25mm Alumi-num Hollow Section. STEP 4: Install DVIHVM Decking according design pattern.

# PORTFOLIO



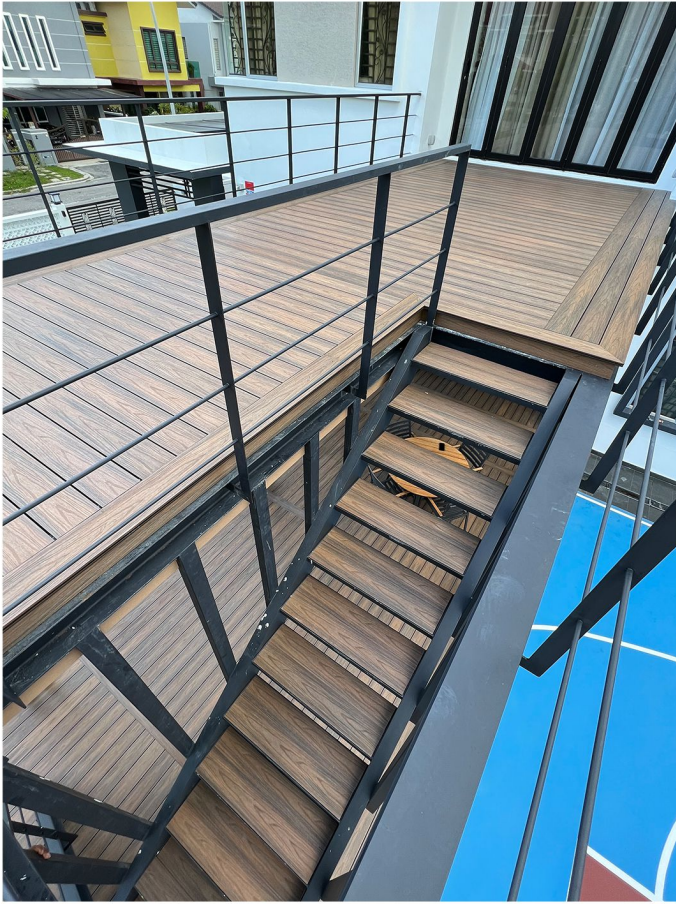








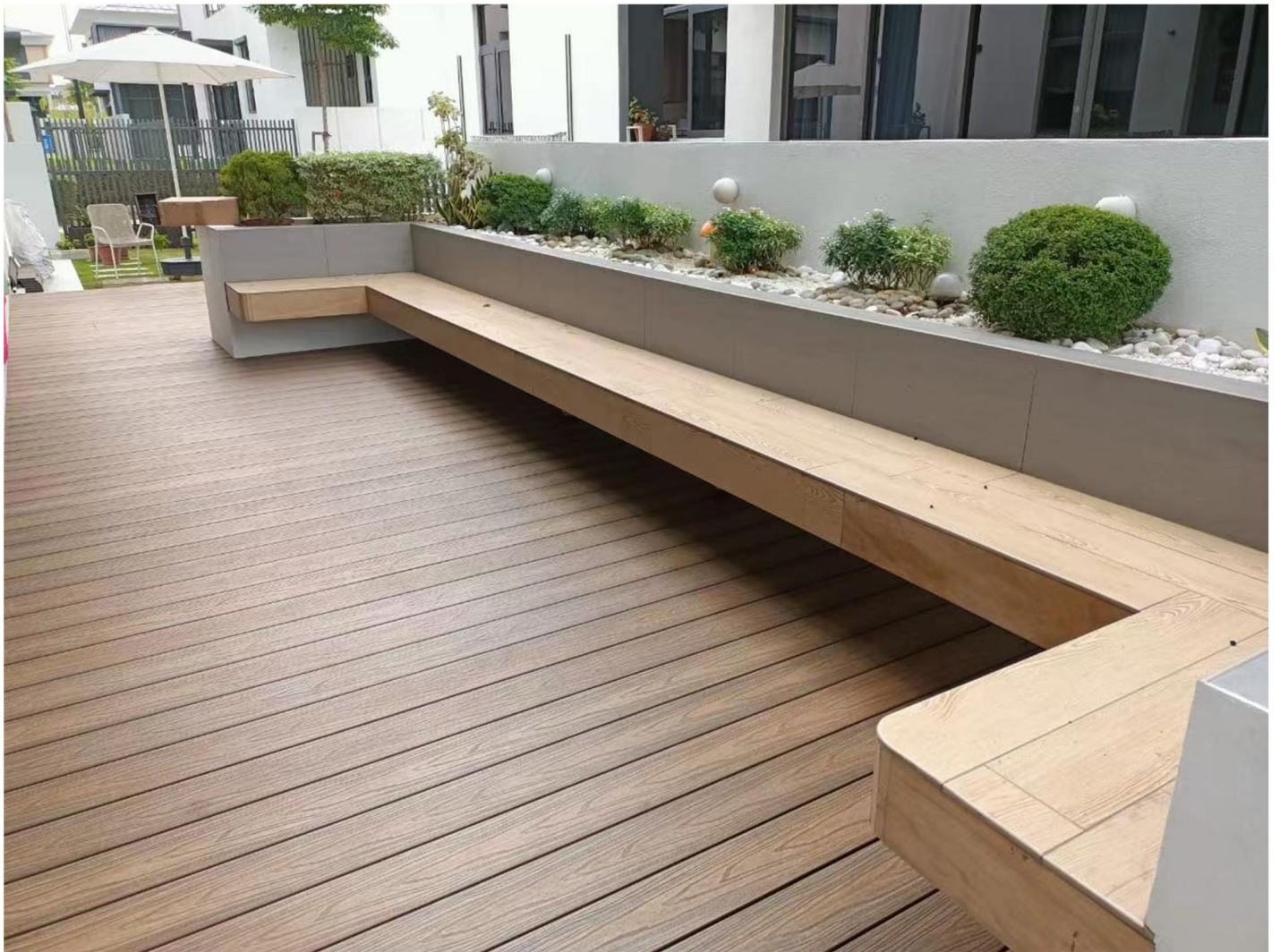








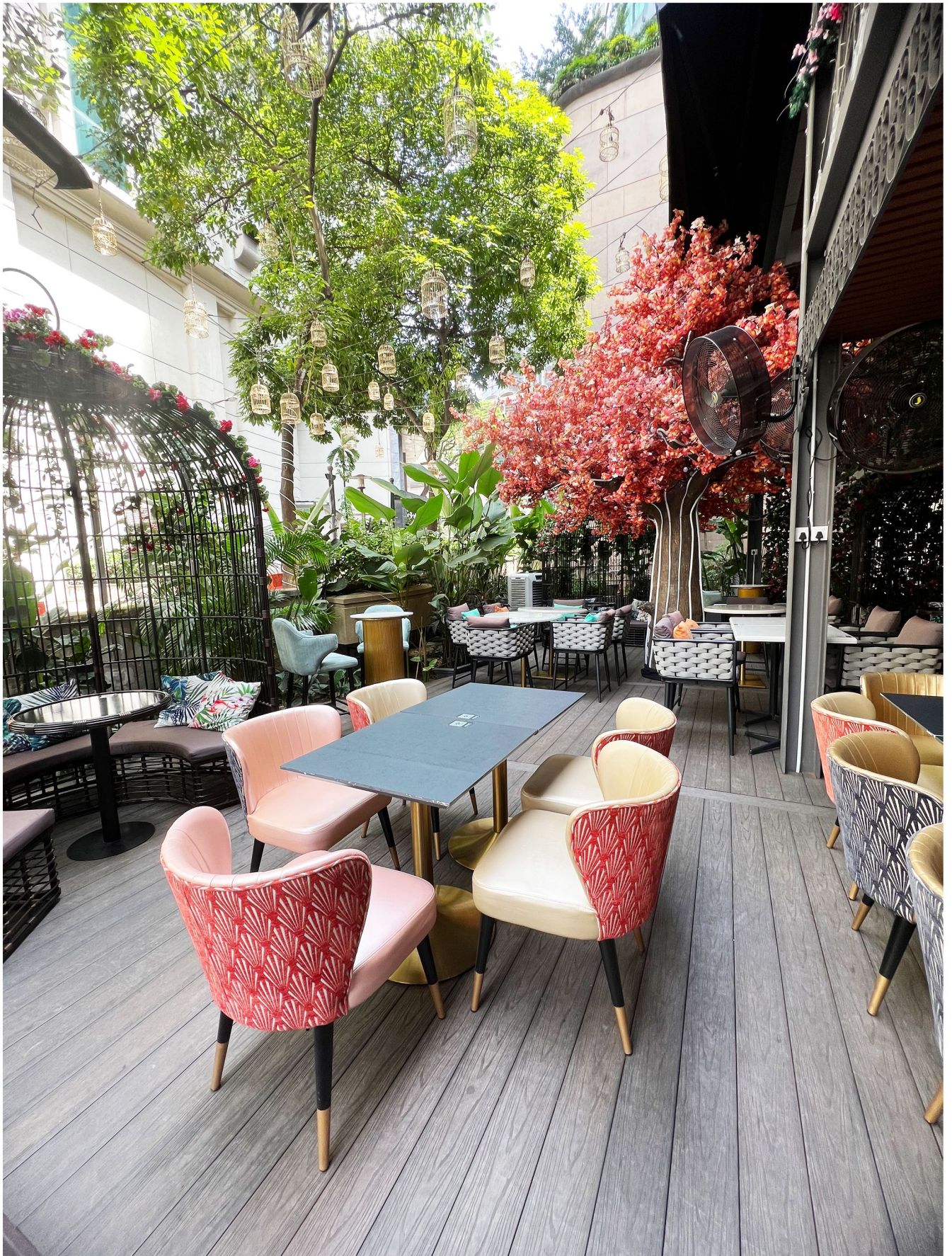
















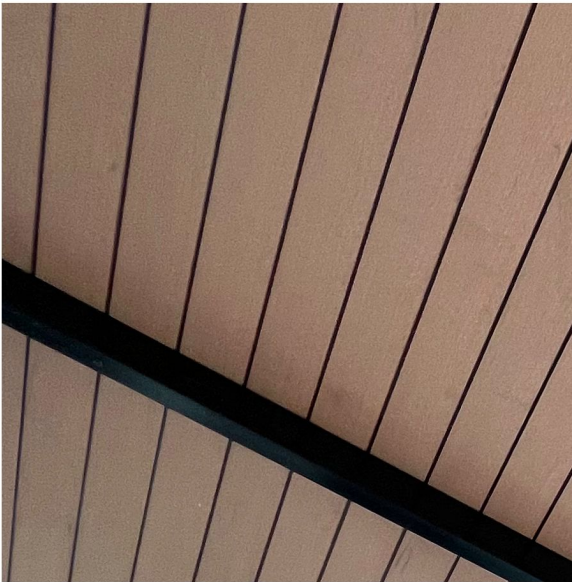




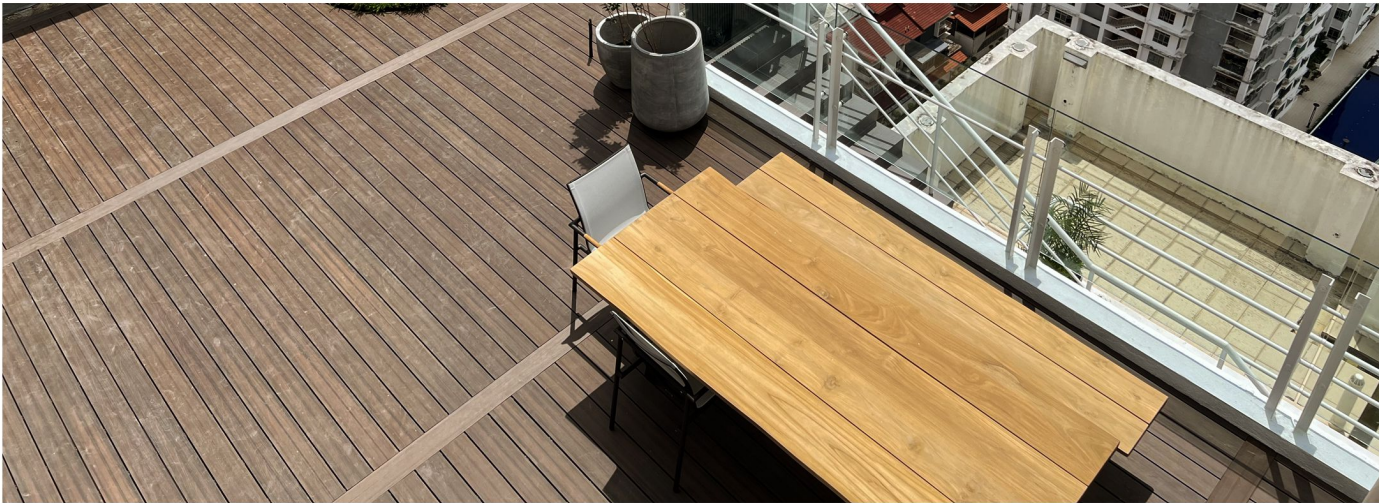




















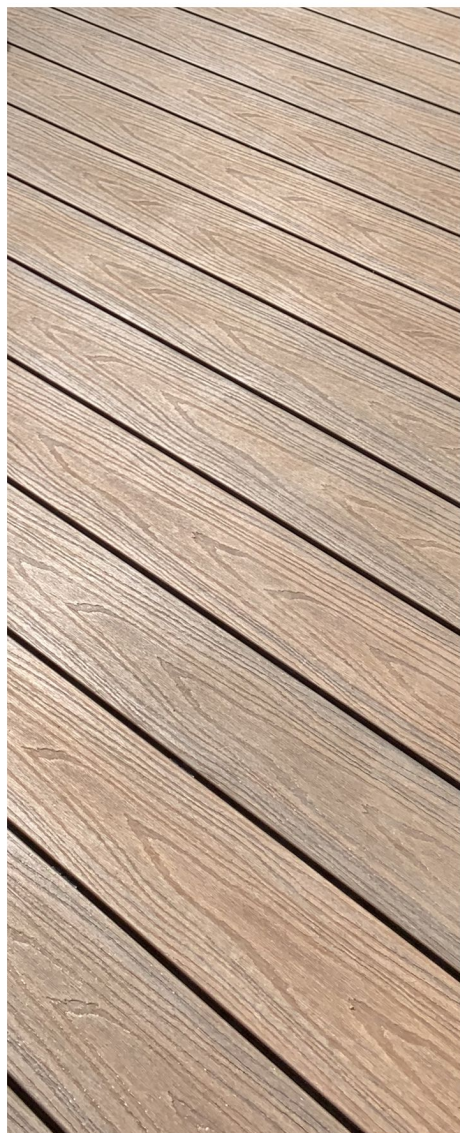
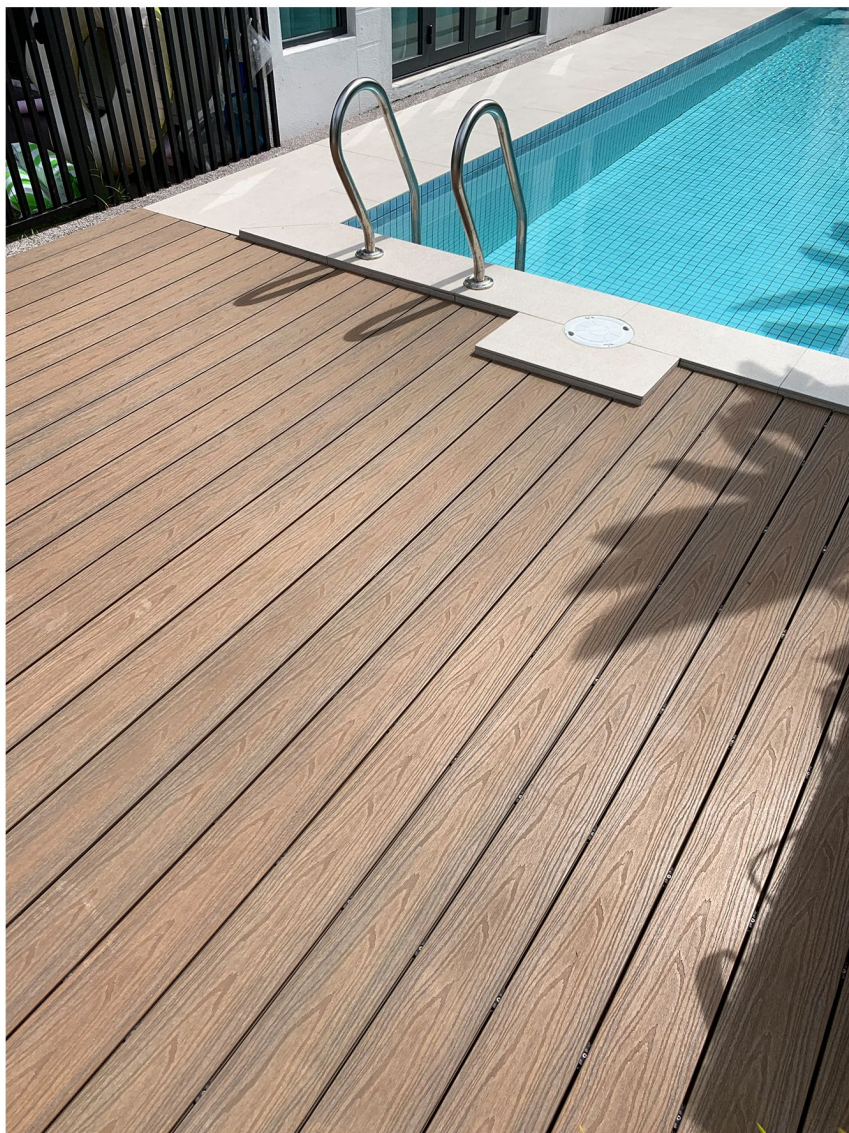










































Innovative technology that revolutionises the way you live,  
promising a sustainable future, today and beyond

**DVYHVM**<sup>TM</sup>  
DS DECOR SDN BHD

**T +603 9011 9516**

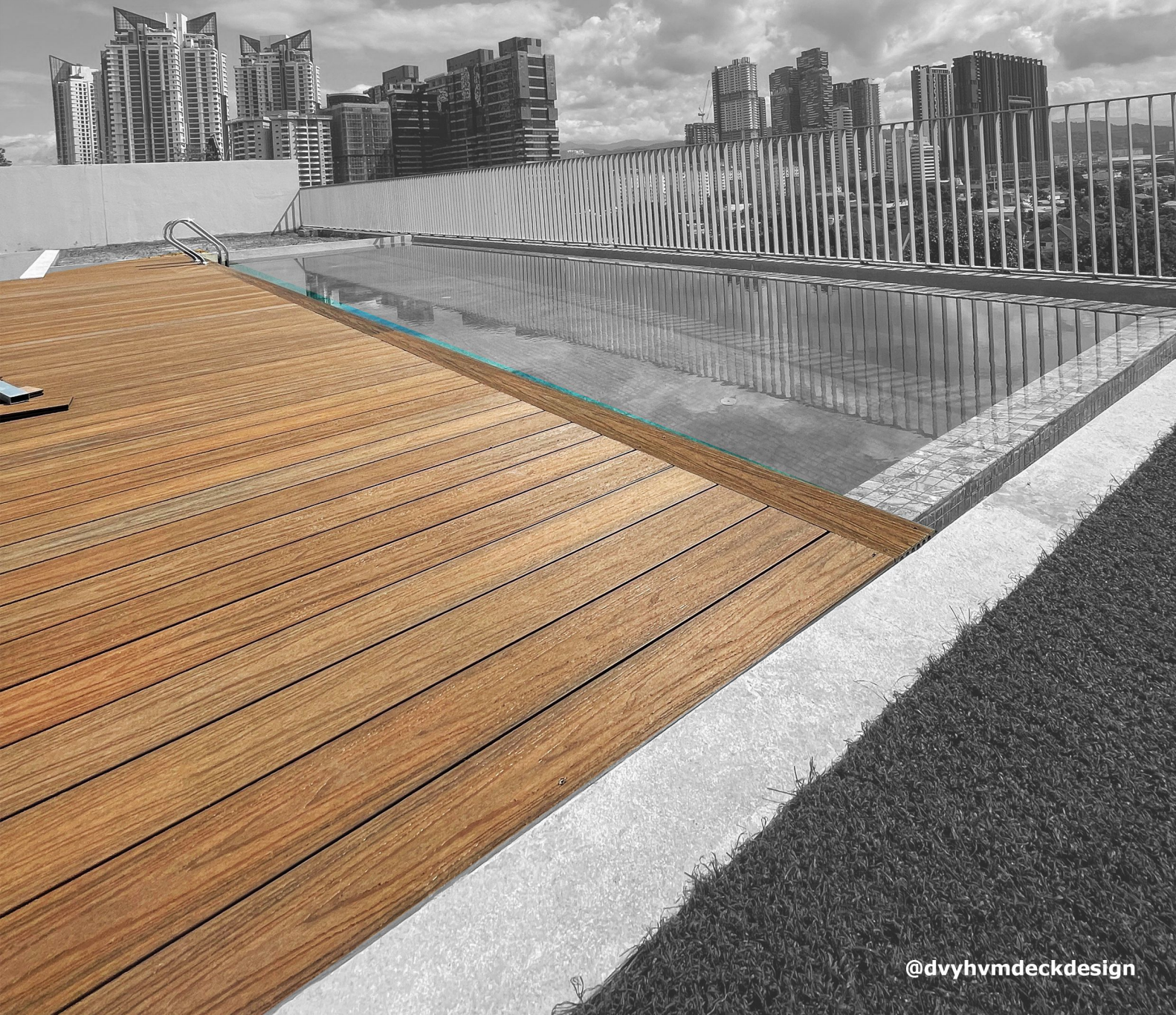
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