Technical Manual
Multi Functions Board

Eco-friendly fibre cement flat sheets for ceiling, eaves & soffit lining, wall cladding, flooring, partition, roof sarking, water tank support and permanent formwork.

1. Product Information 02
  1.1 General
  1.2 Certification
  1.3 Properties

2. General Requirements 03
  2.1 Framing
  2.2 Fasteners
  2.3 Fastener Fixing Distance
  2.4 Jointing
  2.5 Finishes
  2.6 Maintenance

3. Suspended Ceiling 06
  3.1 General
  3.2 Support Grid & Board Size
  3.3 Framing System
  3.4 Accessories

4. Fixed Ceiling Eaves/ Soffit Linings 07
  4.1 General
  4.2 Board Layout
  4.3 Installation
  4.4 Joints & Wall Juctions
  4.5 Details

5. External Wall & Gable End Cladding 08
  5.1 General
  5.2 Good Building Practices
  5.3 Installation
  5.4 Joints & Corners
  5.5 Details

6. Working Instruction 09
  6.1 Cutting
  6.2 Penetration
  6.3 Handling & Storage

7. Accessories 10
1.1 General

1.1.1 Composition

PRIMAflex™ is a lightweight, autoclaved cellulose fibre cement sheet manufactured in accordance with the:

- **MS 1296** – Fibre-cement flat sheets – Product specification and test methods (First revision)

The basic composition is portland cement, cellulose fibre, ground sand and water. A variety of standard lengths and widths are made available to suit specific application. PRIMAflex™ sheets do not contain asbestos fibre or glass fibre.

1.1.2 Applications

PRIMAflex™ board is recognised by the construction industry professionals for its quality, reliability and durability. The typical applications include ceiling lining for building’s interior/exterior, eaves/soffit lining, external claddings to walls and gable ends, internal partition, flooring board, roof sarking and permanent formwork. Sheets thickness suitable for each application is listed on the Table 1.1 below.

1.1.3 Standard Sizes

PRIMAflex™ board standard sizes and the approximate weight per piece are shown in the Table 1.2 below.

1.2 Certifications

PRIMAflex™ fibre cement boards are Sirim certified to **MS 1296**. They are also approved by Jabatan Bomba dan Penyelamat Malaysia for building applications requiring Class ‘O’ building materials as stipulated in the Uniform Building By-law, Malaysia (UBBL). PRIMAflex™ is also listed in the IKRAM’s Senarai Bahan/Barangan Binaan Tempatan.

1.3 Properties

1.3.1 Physical Properties

The typical average values of PRIMAflex™ physical properties are as follow:-

<table>
<thead>
<tr>
<th>Properties</th>
<th>Typical Values</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparent Density (Dry)</td>
<td>1300kg/m³</td>
<td>MS 1296</td>
</tr>
<tr>
<td>Moisture Content at Equilibrium</td>
<td>7%</td>
<td>MS 1296</td>
</tr>
<tr>
<td>Thermal Conductivity, k Value</td>
<td>0.24W/mK</td>
<td>ASTM C518</td>
</tr>
<tr>
<td>Thermal Insulation, R value</td>
<td>4.5 mm – 0.019 m2K/W</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>6.0 mm – 0.025 m2K/W</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>9.0 mm – 0.038 m2K/W</td>
<td>-</td>
</tr>
<tr>
<td>Sound Transmission Class (Estimated)</td>
<td>4.5 mm – 23 dB</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>6.0 mm – 25 dB</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>9.0 mm – 28 dB</td>
<td>-</td>
</tr>
</tbody>
</table>

Note:
1. Apparent density shall not be used to calculate the mass of board in kg/m².
2. Equilibrium Moisture Content (EMC) of 7% is achieved at temperature of 27°C ± 2°C and relative humidity of 65 to 95%.
3. Some values are rounded to the nearest decimal point.
4. Other board properties are available upon request.

1.3.2 Fire Resistance

PRIMAflex™ has been tested in accordance with **BS 476**; fire tests on building material and structure. The test results are as follow:–

**British Standards**

- Fire Propagation (**BS 476 Part 6**) - Index of Performance, I = 0
- Sub-index, I = 0
- Surface Spread of Flame Flame (**BS 476 Part 7**) - **Class 1** (No ignition)

Under the UBBL Malaysia 1984, Clause 204, a material is classified as meeting the “Class ‘O’ – Surface of no flame spread” requirement if when tested to **BS 476 Part 6**, has an Index of Performance not exceeding 12 and a sub-index (I) not exceeding 6. PRIMAflex™ is deemed non-combustible in accordance with the Building Code of Australia.

1.4 Durability

1.4.1 Water Resistance

PRIMAflex™ has been subjected to rigorous tests and subsequently demonstrate high degree of resistance to prolonged moisture exposure that could lead to premature system failure. The following tests have been conducted:–

- **MS 1296**
  - Warm water (**Clause 6.1**)
- **AS/NZS 2908.2**
  - Water permeability (**Clause 8.2.2**)
  - Frost resistance (**Clause 8.2.3**)
  - Warm water (**Clause 8.2.4**)
  - Heat-rain (**Clause 6.5**)
  - Soak-dry (**Clause 8.2.5**)

---

**Table 1.1: Applications and thickness of board**

<table>
<thead>
<tr>
<th>Applications</th>
<th>4.5</th>
<th>6</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceiling</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Eaves/soffit lining</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Cladding (Wall/Gable End)</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Internal Partition</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Roof Sarking</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

**Table 1.2: Standard size and weight of board**

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>610x1220</th>
<th>1220x 1220</th>
<th>1220 x 2440</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5</td>
<td>4.66</td>
<td>9.33</td>
<td>18.65</td>
</tr>
<tr>
<td>6.0</td>
<td>6.25</td>
<td>12.50</td>
<td>25.01</td>
</tr>
<tr>
<td>9.0</td>
<td>-</td>
<td>-</td>
<td>38.90</td>
</tr>
</tbody>
</table>

Note:
1. Weights per sheet are shown for sizes available ex stock.
2. Other sizes are available on special order and sales may be subject to special conditions.
2.1 Framing

PRIMAflex™ sheets are suitable for fixing to timber or light gauge galvanised steel framing members. Construction of framing shall be in accordance with local building regulations and good building practices. Framing systems must be constructed to meet the durability requirements and the life expectancy of the building, including exposure to weather/moisture, insects or termites.

At sheet joint, single support framing system as shown in Figure 2.1 and Figure 2.2 requires a nominal face width (or flange for steel stud):
- Timber - 42mm minimum
- Steel - 35mm minimum

Where necessary, the face width may be increased by providing trim-packing to the side supports. Example of such scenarios is the incorporation of a wide gap at board joint for architectural purposes. Refer to Figure 2.3.

Use kiln-dried or seasoned timber only. Do not use unseasoned timber as it is prone to shrinkage and may result in system failure associated with frame movement which will consequently affect the system integrity.

Steel frame must be fabricated using galvanised light gauge steel section or equivalent. The base material thickness (BMT) must be between 0.5mm to 1.6mm. For load-bearing purpose applications such as floor systems, mild-steel hollow section (rectangular or square) can also be used. Recommended sequence of board fixing to steel frame is as shown in Figure 2.4.

Figure 2.1: Fixing to Timber

Figure 2.2: Fixing to Steel (Butt Joint)

Figure 2.3: Fixing to Narrow Support

Figure 2.4: Direction of Board installation
Unless otherwise specified, frames to receive boards should be straight, true and level. Cladding, lining or floor board will not straighten excessively distorted or warped frame. Warping may remain visible after boards are applied onto distorted frame. The suggested maximum acceptable frame straightness tolerances are as below:
- Maximum 3mm over 1200mm length or
- Maximum 4mm over 3000mm length, measured in any direction

### 2.2 Fasteners

The table below shows the type of fasteners suitable for fixing PRiMAflex™ to timber or steel framing. Fasteners for fixing boards are not required for suspended ceiling application.

#### Table 2.1: Fastener fixing to timber support

<table>
<thead>
<tr>
<th>Fixing to Timber Support</th>
<th>Board Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galvanised Fibre Cement Nail</td>
<td>2.0mm Ø x 25mm, 3.2mm and 4.5mm</td>
</tr>
<tr>
<td>2.0mm or 2.8mm Ø x 30mm</td>
<td>6mm and 7.5mm</td>
</tr>
<tr>
<td>2.0mm or 2.8mm Ø x 40mm</td>
<td>9mm and 12mm</td>
</tr>
</tbody>
</table>

#### Table 2.2: Fastener fixing to light gauge steel support

<table>
<thead>
<tr>
<th>Fixing to Light Gauge Steel Support</th>
<th>Board Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Embedding Head/Self-Drilling Winged Screw</td>
<td>6mm</td>
</tr>
<tr>
<td>No. 7 x 22mm</td>
<td>7.5mm, 9mm, 12mm and 16mm</td>
</tr>
<tr>
<td>No. 8 x 32mm</td>
<td>24mm, 32mm</td>
</tr>
<tr>
<td>No. 8 x 45</td>
<td>24mm</td>
</tr>
</tbody>
</table>

**Note:**
1. Drive nail head flush with board surface.
2. Screw head must be embedded approximately 0.5mm below sheet surface.
3. If the above specified fasteners are not available, alternative fasteners with similar size/dimension can be used but the overall durability of the system might be compromised.
4. Patch screw points with suitable exterior grade compound and sand them prior to painting.
5. Screw fixing is only suitable for 6mm board only.
6. Nails and screws must be suitably coated to the intended applications.
7. Please obtain approval from Hume Cemboard Industries (HCI) Technical Department for other types of screw and nail which are not being specified in this manual.

### 2.3 Fastener Fixing Distance

When fixing PRiMAflex™ to timber or steel framing, fasteners must be located as follow-

#### Table 2.3: Fastener fixing distance

<table>
<thead>
<tr>
<th>Fastener Location</th>
<th>Cladding, Ceiling &amp; Eaves Linings</th>
<th>Flooring &amp; Roof Sarking</th>
</tr>
</thead>
<tbody>
<tr>
<td>From edges</td>
<td>12mm</td>
<td>12mm to 15mm</td>
</tr>
<tr>
<td>From corners</td>
<td>50mm</td>
<td>50mm</td>
</tr>
<tr>
<td>At perimeter</td>
<td>200mm</td>
<td>300mm</td>
</tr>
<tr>
<td>Elsewhere</td>
<td>300mm</td>
<td>400mm</td>
</tr>
</tbody>
</table>

**Note:**
No fasteners required for suspended ceiling and permanent formwork application.

### 2.4 Jointing

PRiMAflex™ board may be joined using the methods below:

1. The board edges may be joined closely to produce a neat butt joint as shown in Figure 2.2.
2. An expressed joint may be formed by providing 3 to 6mm gap between PRiMAflex™ sheets. See Figure 2.5.
3. Jointing system which include sealant joint with 3 to 6mm gap between boards is illustrated in Figure 2.6.
4. Timber batten may be used to cover the joint as well as to serve as a feature. Refer Figure 2.7.
5. When PRiMAflex™ is applied as internal wall lining, the joint may also be decorated with aluminium extruded profile as shown in Figure 2.8.

**Figure 2.5: Expresses Joint**

**Figure 2.6: Sealant Joint**

**Note:**
1. Sealant must be of flexible and paintable type such as exterior grade polyurethane or acrylic gap sealant.
2. For best result, cover sheet edges with masking tape prior to applying the gap sealant.
2.5 Finishes

2.5.1 Paint
This section is only applicable for applications requiring paint finishes or coating systems. For best result, decorate PRIMAflex® board with a layer of suitable primer and a minimum two coats of quality water-based acrylic Paint. Coating should be of a vapour permeable type. Other types of coatings such as Polyurethane or Epoxy Paints are also suitable, but require special preparations. In all cases, coating manufacturer’s recommendations should be adhered to. Upon installation, boards applied externally must be coated within 90 days. Do not leave board surface uncoated.

Ensure board is dry and free from dust, grease or other contaminant before applying finishing coat.

2.5.2 Other Finishes
This section is only applicable for lightweight flooring application only. For dry area applications, ceramic tiles can be fixed directly onto PRIMAflex® board. For wet area applications, apply a layer of waterproofing membrane on PRIMAflex® before fixing the ceramic tiles. Use flexible Tile Adhesive, the Tile Adhesive normally comes in 2 parts, - ready mix cementitious cement and latex-based liquid solution. Refer to tile adhesive manufacturer for recommendation. Normal portland or composite cement/ sand mortar is not recommended.

Board joints must be sanded if flexible materials such as vinyl tiles are to be applied onto PRIMAflex® board. All gaps and fastener points must be covered with cementitious plaster-based patching compound.

For general office use, carpet is also a suitable finishing material.

2.5.3 Patching Compound
If necessary, apply Patching Compound to cover screw points. Use cementitious plaster-based Patching Compound compatible with concrete products. For external application, exterior grade Patching Compound must be used.

When it is necessary to seal gaps between board joints, use flexible/ paintable Polyurethane (PU) Sealant or Modified Silicone (MS) sealant. This Sealant should also be used to patch Screw Points when PRIMAflex® is used as wet area flooring system. Always refer to sealant manufacturer for recommendations.

2.6 Maintenance
Periodic inspection and maintenance of the paint coating system must be performed as specified by the paint manufacturer. All joints, sealant and wall surfaces must be checked for cracks to prevent the intrusion of water. Make good any defects in accordance with the systems outlined in this manual and good trade practice.

2.6.1 Precautionary Measures
PRIMAflex® boards must always be kept dry prior to installation. When boards have been installed, ensure the construction is carried out until the installation of final roof covering material (i.e. metal roofing sheet). If roof section cannot be completed on the same day, installed boards must be protected against rain water or other source of moisture. Should incomplete roof section become wet, allow the components to dry before fixing the final roof covering material. Excessive moisture/ water trapped within the roof system will degrade its overall performance and durability.
3.1 General
This system entails the synergy of superior quality PRIMAflex™ ceiling board and proprietary suspended metal framing systems, typically fabricated using pre-finished aluminium or light gauge galvanised steel. Apart from its inherent superior water resistant attribute, PRIMAflex™ board is also resistant to sagging over a long period of time. Suspended ceiling systems are normally used in commercial and office buildings.

Note: This ceiling system is not recommended for eaves area or applications subject to high wind pressure since the ceiling boards are not mechanically fixed to the framework.

3.2 Support Grid & Board Size
3.2mm, 4.5mm and 6mm thick PRIMAflex™ boards are suitable for suspended ceiling systems. Boards are supplied pre-cut to the standard sizes below to fit the designated support grid dimension.

3.3 Framing System
Boards are simply supported at all four edges using proprietary suspended ceiling framing system incorporating main 'T', cross 'T' and perimeter wall angle. These framing components are suspended using hangers, and the hangers are then connected to the main structural element (beam, rafters/ truss, or reinforced concrete slab) using suitable fasteners. Refer to Figure 3.1 and 3.2.

Framing system must be installed as per respective manufacturer’s written instructions. Generally, the framing system is designed to carry fibre cement board with thickness of up to 6mm. Always consult relevant supplier/ manufacturer for the maximum recommended load that can be applied to the framing system. This ceiling system does not utilise any mechanical fasteners for fixing the ceiling boards.

3.4 Accessories
Any ceiling accessory such as recess boxed-lights shall be supported independently by providing additional hangers (suspension rods/wires). Consult light or accessory manufacturer for the recommended installation method.

Table 3.1: Support grid and board size

<table>
<thead>
<tr>
<th>Support Grid Size</th>
<th>PRIMAflex™ Board Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>600mm x 600mm</td>
<td>595mm x 595mm</td>
</tr>
<tr>
<td>610mm x 610mm</td>
<td>603mm x 603mm</td>
</tr>
<tr>
<td>600mm x 1200mm</td>
<td>595mm x 1195mm</td>
</tr>
<tr>
<td>610mm x 1220mm</td>
<td>603mm x 1213mm</td>
</tr>
</tbody>
</table>

Figure 3.1 – Framing Components

Figure 3.2 – System Overview
4 Fixed Ceiling Eaves/ Soffit Linings

4.1 General
The exceptionally flat and smooth surface, ease of handling have made PRIMAflex® board the ideal choice for nail-on/ screw-on ceiling systems. Additionally, PRIMAflex® is also suitable to be applied as eaves or Soffit Lining due to its ability to withstand exterior weather conditions. Boards up to 6mm thick are recommended for these applications. However, thicker boards may be used if other design criteria need to be satisfied. 3.2mm and 4.5mm thick boards are recommended for residential units up to two storey buildings. For high rise accommodation such as apartments and condominiums, 6mm thick board should be applied.

4.2 Board Layout
For Ceiling, Eaves and Soffit Lining applications, PRIMAflex® ceiling board can be fixed across or parallel to the supporting frame. Board joints must coincide with centre of supporting frames. Refer Figure 4.1.

4.3 Installation
This installation method entails securing PRIMAflex® board onto a rigid steel/timber framework by using nails or screws. Framing is normally spaced at 610mm centers maximum but it must be adjusted to incorporate gaps at board joint if necessary. To ensure proper fastener head embedment, screw fixing is only recommended when using a minimum of 6mm thick board only. Screw heads will remain proud if board thickness is less than 6mm.

4.4 Joints & Wall Junctions
Ceiling to wall junction can be decorated with angle trim or timber mould.

4.5 Details
The following diagrams represent typical details that cover the majority situations. Contact HCI if you require specific details that are not covered in this section.

Table 4.1: Support framing distance for ceiling

<table>
<thead>
<tr>
<th>Board Thickness</th>
<th>Ceiling &amp; Eaves/ Soffit Lining</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2mm</td>
<td>610 610</td>
</tr>
<tr>
<td>4.5mm</td>
<td>610 610</td>
</tr>
<tr>
<td>6.0mm</td>
<td>610 1220</td>
</tr>
</tbody>
</table>

Note:
1. All board joints must be supported and secured to the framework.
2. Joists are the primary continuous support that provides structural integrity of the ceiling system.
3. Trimmers are the secondary support where board edges are secured to, and normally positioned at 90° angle with respect to the joists.

Figure 4.1 – Ceiling Board Installation

Figure 4.2 – Flat Eaves/ Soffit

Figure 4.3 – Raked Eaves
5 Wall & Gable End Cladding

5.1 General
PRIMAflex® wall cladding offers the strength, durability and stability of concrete product – coupled with the versatility of a panel product. Refer to Table 1 for the recommended board thickness for specific application.

PRIMAflex® may also be used as internal wall lining (partitioning) for applications not requiring flush joint or seamless joint finishing. For flush joint finishing, refer to PRIMAflex® product catalogue.

5.2 Good Building Practices

5.2.1 Ground Clearance
Boards must be installed clear of the ground level by a minimum of 150mm to provide for adequate protection against constant contact with ground water. This would prevent boards from getting saturated, which may result in coating adhesion failure. Refer to Figure 5.1.

5.2.2 Flashing
Provide flashing at internal & external corners, around door/ window opening. On the ground floor (or in situation where slab underside is in direct contact with soil), provide a damp-proof course before laying the bottom tracks. Refer to Figure 5.2.

5.2.3 Sarking/Sisalation
While it is not a mandatory requirement by the Malaysia UBBL, it is a good building practice to provide a layer of vapour impermeable sarking material (building foil) to the exterior side of wall framing prior to installation of PRIMAflex® cladding board. Reflective sarking such as foil-backed building wrap will improve the thermal resistant of a wall system and also protect against water ingress due to pressure differential between internal and external environment. Install sarking material as per manufacturer’s instruction. Sarking is highly recommended when insulation slab such as mineral wool is placed in the wall cavity. This is done to prevent accumulation of moisture within the insulation material which would affect the overall performance of the system assembly.

5.3 Installation

5.3.1 Board Layout
When applied as external wall and gable end claddings, PRIMAflex® may be installed vertically or horizontally, ensuring sheet joint coincides with the centre of supporting frame. Where possible, sheet should be installed as such that the horizontal joints are kept at a minimum level. Refer to Figure 5.3.

5.3.2 Framing
Framing timber is typically 50mm x 75mm or 50mm x 100mm. In the recent years, the use of light gauge metal frame system for the construction of light weight building systems is increasingly becoming more prevalent. Boards can be fixed to light-gauge C-channels or top-hat section. C-channel size is typically 64mm x 35mm x 0.5mm. Refer to framing supplier for more information. Refer to Figure 2.4 for general installation detail.

<table>
<thead>
<tr>
<th>Sheet Thickness</th>
<th>Application</th>
<th>Maximum Frame Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5mm</td>
<td>Gable Ends</td>
<td>407</td>
</tr>
<tr>
<td>6.0mm &amp; 7.5mm</td>
<td>Wall cladding, Gable Ends &amp; Partition</td>
<td>610</td>
</tr>
<tr>
<td>9mm &amp; 12mm</td>
<td>Impact Resistant Wall</td>
<td>610</td>
</tr>
</tbody>
</table>

5.4 Joints & Corners

5.4.1 Horizontal Joints
Horizontal joints occur when a building height exceeds the length of a full size sheet or when a building is more than one storey high. At horizontal joints, boards must be supported and secured to framework (noggins). Provide preformed PVC or galvanised steel flashings to all PRIMAflex® horizontal joints. Flashings should be fixed to noggings at 200mm centres. Refer to Figure 5.4. Board joint can also be covered with sealant mould or timber joint as shown on Figure 2.6 and 2.7.

5.4.2 Corners
Internal and external corners can be decorated with timber trim. Refer to Figure 5.5. Alternatively, aluminium 50mm x 50mm corner angle can also be used. Refer Figure 5.6.

5.5 Details
The following diagrams represent typical details that cover the majority situations. Contact HCI if you require specific details that are not covered in this section.
Figure 5.5 – External/Internal Corners (Timber Trim)

Figure 5.6 – External/Internal Corners (Aluminum Angle Trim)
6 Working Instructions

6.1 Cutting

PRIMAflex® sheets can be cut using common power assisted tools such as circular saw equipped with a diamond-tipped cutting blade. This operation must be carried out in a well-ventilated area only. Do not wet the sheet or the saw blade during cutting process. Power tools fitted with dust-extracting attachments are recommended. A dust mask and safety goggle must always be worn when cutting, drilling or grinding the sheet.

Figure 6.1: Score and Snap Method (left), Machine Cut (right)

6.2 Penetrations

Round holes can be formed by drilling a series of smaller holes around the perimeter of the proposed opening, and subsequently tapping the waste piece out carefully. Trim the rough edges with rasp if required. Use suitable high-speed heavy duty drill bit. Rectangular or square openings can be achieved by using power assisted circular saw.

Figure 6.2: Notching and penetration

6.3 Handling & Storage

Always lift sheets vertically, on-edge and lengthwise. Store PRIMAflex® neatly on a flat surface supported evenly on bearers spaced at 600mm centres maximum, clear from ground to avoid damage and moisture ingress. Store under cover and ensure PRIMAflex® is dry prior to fixing. Never install damp or wet sheets as they are prone to shrinkage and subsequently may lead to joint failure. Damp or wet sheets must be allowed to dry to equilibrium moisture content before fixing.

Figure 6.3: Handling
## 7 Accessories

### Table 7.1: Accessories by HCL

<table>
<thead>
<tr>
<th>Items</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-embedding head, self-drilling ‘wing teks’ screws</strong></td>
<td>[For fixing PRIMAflex® to galvanized light gauge steel thickness of 0.8mm to 1.6mm] No. 8 x 1/8”</td>
</tr>
<tr>
<td><strong>PVC Jointer</strong></td>
<td>[For jointing 7.5mm thick PRIMAflex® when off-support end joints are preferred]</td>
</tr>
<tr>
<td><strong>Score and Snap Knife</strong></td>
<td>[For cutting PRIMAflex® - straight cut only]</td>
</tr>
</tbody>
</table>

### Table 7.2: Accessories by others suppliers

<table>
<thead>
<tr>
<th>Items</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Galvanised Wire Nails</strong></td>
<td>[For nailing to timber support where nail heads to remain exposed external side] 2.8mm diameter x 30mm long and 40mm long</td>
</tr>
<tr>
<td><strong>Flat Head Roofing Nails</strong></td>
<td>[For nailing to timber support where nail heads to be concealed by the successive planking] 2.8mm diameter x 30mm long and 40mm long</td>
</tr>
<tr>
<td><strong>Sealant Gun</strong></td>
<td>[Tools for extruding sealant from its cartridge]</td>
</tr>
<tr>
<td><strong>Paintable/flexible Polyurethane Sealant</strong></td>
<td>[For sealing gap at plank joints] 300mL cartridge</td>
</tr>
<tr>
<td><strong>Exterior Grade Water-based Acrylic Paint</strong></td>
<td>(Top coats for finishing of exposed surface) Note: The exact specification of these products of their standard packaging may be different. Refer to the respective.</td>
</tr>
</tbody>
</table>

---

**Note:** The exact specification of these products and their standard packaging may be different. Refer to the respective.
WARRANTY
Hume Cemboard Industries Sdn Bhd ("the Company") warrants that it will at all times ensure that the products referred to herein ("the Products") shall be supplied by it to the purchaser free of any manufacturing defects and defective materials used in their manufacture.

In the event and if contrary to this assertion the Products prove to be defective, whether as a result of manufacturing defects or arising from the Company's use of defective materials, the Company will supply replacement Products. The Company shall, however, have the option and may choose to reimburse the purchaser the purchase price of the Products instead. The Company shall not be liable for any economic or consequential losses arising from any use of defective Products.

This warranty shall be void unless the purchaser has, in its handling and installation of the Products, complied with the recommendations contained in this brochure and other good building practices expected of a reasonable purchaser.

ADvisory note
Successful installations of Hume Cemboard Industries Sdn Bhd's Products depend on a large number of factors that are outside of the scope of this brochure. Particular design, detail, construction requirements and workmanship are beyond the control of the Company. As such, Hume Cemboard Industries Sdn Bhd's warranty does not extend to non-usability of Products or damage to Products arising from poor or defective designs or systems or poor quality of workmanship in the installation of Products.