



With the living philosophy of working on dreams & innovation SHERA has successfully developed a range of products to suit idealistic living. SHERA's creativity helps you live modern life with the nature in the nature.

as far as...your imagination can go

Boundless Envision

Imagination is set free to design with SHERA. No matter whether a new construction or renovation works, SHERA provides fuel for creation. Unique architectural styles with arches and aesthetically rounded structures blend best with SHERA's products.

Spectacular Design

SHERA Collection's distinctive design elegantly dresses-up the building in the latest trend. SHERA Siding Collection ,Ceiling Collection ,Flooring Collection and Roofing Collection are offered in a variety of colors, textures, and profiles. These sidings can also be furnished with most of other decorative materials such as ceramic tiles, color paints, laminates, wall papers etc.

Speedy Fabrication

SHERA's ease of handling, preparation, workability and installation has ensured the speed of fabrication matches with the speed of thinking.

Environmental Friendliness

SHERA products are made from natural and recycled cellulose fibers. The product contains NON ASBESTOS rendering it as environmental friendly & harmless product. SHERA Plank's impeccable wood texture brings us close to nature without disturbing the nature.

Superlative Attribute

SHERA's unique cement based composite material is specially designed for both interior and exterior usage. Its superior performance in terms of high durability, material stability, moisture and fire resistance offers hassle-free quality for lifetime.

inspiration 's component

Product Port

*Flooring Board / Underlay Board /
dec' floor / Accessories*

07

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General / Timber & Steel Frame / Jointing

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Floor Board, Dec' floor & Underlay Board

*Floor Board / Dec' floor /
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Product Feature



Weather
Resistance

SHERA products are manufactured to withstand cyclic weather changes. These products have been tested for durability according to EN 12467 : 2000 and ASTM C 1185 standards & confirm stability in testing cycles of freezing - thawing, heating - raining & soaking - drying. They also pass the test for warm water resistance.



Non-Asbestos

SHERA is environmental friendly product, made from eco-friendly non-forestry plantations and recycled fiber and does not contain asbestos which is harmful for human life.



Immune to
Water Damage

SHERA's cement based material renders SHERA with an excellent resistance against water damage. SHERA provides an exceptional product for both interior and exterior applications.

Product Port

07

Flooring Board
Underlay Board
dec' floor
Accessories

product portfolio



SHERA
flooring board



SHERA
underlay board



SHERA
dec'floor

profile

Square-Cut

Square-Cut

Square-Cut

surface texture

Unsanded Smooth

Unsanded Smooth

Cassia

size (mm.)

15 x 1200 x 2400

15 x 1220 x 2440

18 x 1200 x 2400

18 x 1220 x 2440

10 x 1200 x 2400

10 x 1220 x 2440

25 x 100 x 3000

25 x 150 x 3000

25 x 200 x 3000

25 x 250 x 3000

25 x 300 x 3000

accessories



**SCREW
FIX-W**

for fixing SHERA with steel frame, thickness more than 1.00 mm.

finished class

1

length (mm.)

32 / 40

diameter

10 G

package size

200 pcs./Box



SHERA
sealant PU25

Polyurethane joint sealant used for jointing SHERA sheets.

package size

310 / 600 ml



SHERA
barrel gun

15" aluminium barrel gun used for applying both cartridge and sausage types of SHERA Sealant PU 25

Framing and fixing

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General
Timber & Steel Frame
Jointing



and Fixing general

- SHERA Flooring Board, Underlay Board and Dec' Floor, can be fixed with either steel frame or timber frame. Frame and method of framing must comply with relevant building regulations and standards in each country as well requirement in SHERA Flooring installation manual
- When used in severe weather, class 3 or 4 screw or nail should be used to avoid corrosion and damage. Contact your local fasteners producers for more information on these types of fasteners.
- Studs spacing for each degree of design load must be installed according to the following table 1, 2 and 3.
- Notes on Usage
SHERA Flooring products should only be used for flooring application where there is no heavy impact or dynamic load.

Table 1

Load Table for SHERA Flooring Board and SHERA Underlay Board

Grid Support Spacing (mm.)	300 x 300	300 x 400	400 x 400	300 x 600	400 x 600	600 x 600	600 x 1200
Uniform Distribution Load (kg./m²)							
15 mm. thickness - Flooring Board	1600	1000	900	850	500	400	200
18 mm. thickness - Flooring Board	1700	1100	950	900	550	425	225
10 mm. thickness - Underlay Board	500	350	300	250	150	100	50

Remarks : Safety factor used for load table calculation is 2.5

Table 2

Load Table for SHERA dec' floor

One - Way Joist Span Spacing (mm.)	300	400
Uniform Distribution Load (kg./m²)	2000	1125
Point Load (kg.)		
200 mm. width - dec' floor	120	n/a
250 mm. width - dec' floor	150	110
300 mm. width - dec' floor	180	130

Remarks : - Safety factor used for load table calculation is 2.5
- SHERA dec' floor smaller than 200 mm. in width is not recommended for used as structural floor. They should only be laid on solid floor as a decorative material.

Table 3

Load Table for SHERA dec' floor with 10 mm. SHERA Underlay Board

One - Way Joist Span Spacing (mm.)	300	400	600
Uniform Distribution Load (kg./m²)	2800	1500	700
Point Load (kg)			
100 mm. width - dec' floor	100	n/a	n/a
150 mm. width - dec' floor	130	100	n/a
200 mm. width - dec' floor	180	130	n/a
250 mm. width - dec' floor	200	150	100
300 mm. width - dec' floor	250	190	120

Remarks : - Safety factor used for load table calculation is 2.5
- This load table is applicable when using SHERA dec' floor with 10 mm. thickness. SHERA Underlay Board only.

- Timber for framing must have the level properties and durability in accordance with its desired service life.
- The supporting timber frame should be tightly fixed with no twisting since nail may become loose due to heavy traffic loads. The supporting profiles should be fixed straight, non-twisting type and not in round or curved shape.
- Nail should be used when fixing SHERA Flooring with timber frame. Contact your local nail supplier for more information.
- Nails should not be over or under driven as it will reduce holding strength of the sheet. See figure 1 for recommended application.

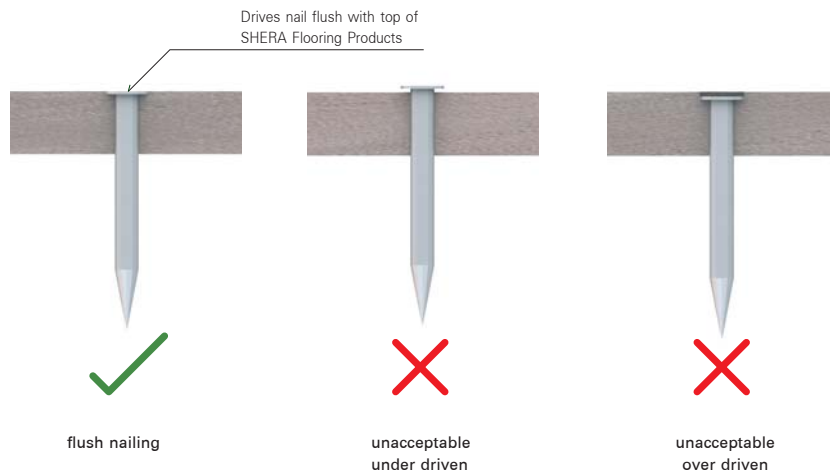


Figure 1 : Nail Fastener

- Thickness and quality of steel frame must be selected according to their required service load and should comply with building code and standard of each country.
- The supporting grid frame should be tightly fixed with no twisting since screw may become loose due to heavy traffic loads. The supporting profiles should be fixed straight, non-twisting type and not in round or curved shape.
- Screw such as SHERA Fix - W should be used when fixing SHERA Flooring with steel frame.
- Screw should not be over or under driven as it will reduce holding strength of the sheet. See figure 2 for recommended application.

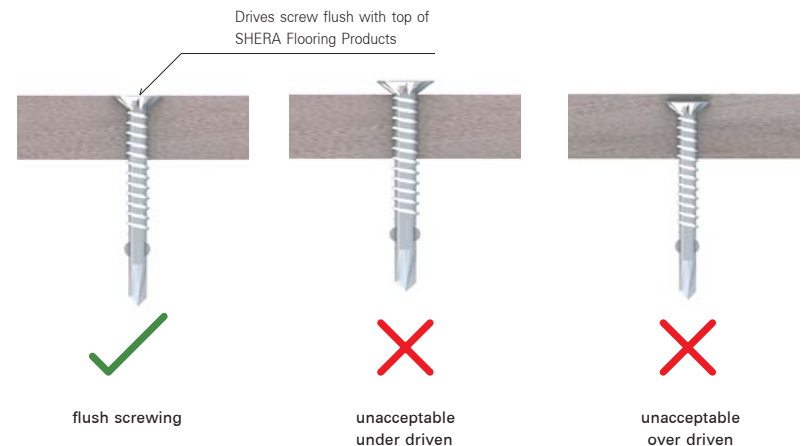


Figure 2 : Screw Fastener

- Minimum flange width of stud at sheet joint must be 38 mm. Square tube steel frame is recommended at the sheet joint to avoid bending of stud flange.

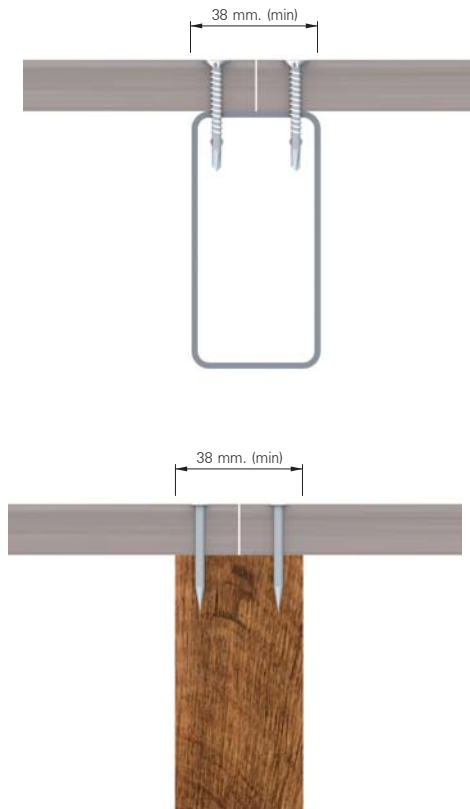


Figure 3 : Screw Fastening Position

- Butt Joint

Butt joint can be used in dry flooring area and where an exposed joint appearance is acceptable.



Figure 4 : Butt Joint

- Polyurethane Joint

For wet area or movement joint, polyurethane based sealant such as SHERA PU 25 should be used to seal the joint between two sheets. See figure 5 for details. Jointing gap between the edges of sheets should not be less than 3 mm.



Figure 5 : Polyurethane Joint

jointing

- Before applying sealant into the gap between the sheets, cover the edge of board or dec'floor with easily removable masking tape. Fill the gap with sealant in an upward motion until it was completely full. Immediately remove the masking tape after completing sealant application. Refer to figure 6 for application method.

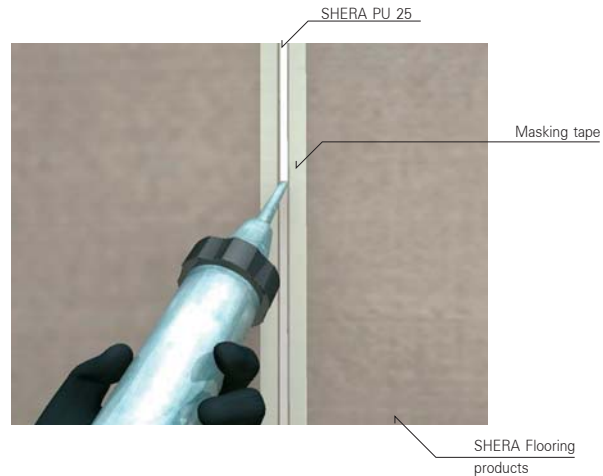
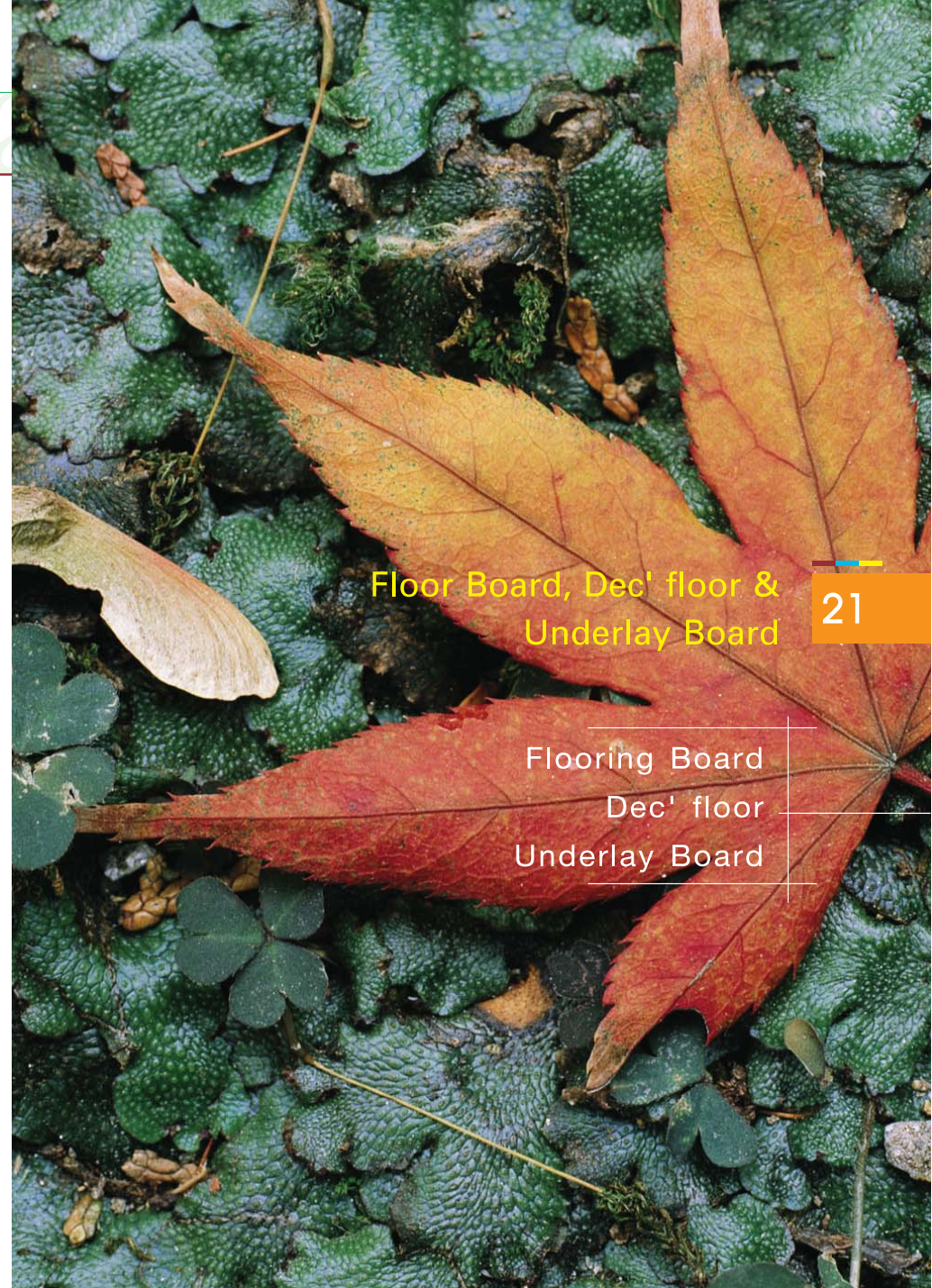


Figure 6 : Polyurethane Sealant Application



Floor Board, Dec' floor & Underlay Board

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Flooring Board
Dec' floor
Underlay Board

- General

For general information on framing, fixing, and jointing please refer to page 11-20 For other special installation details and work instruction, see page 33-39.

- Fixing

Fasteners must locate at more than 12 mm. from board edges and 50 mm. from board corners. Maximum fastener spacing is 300 mm. See figure 7 for fixing details.

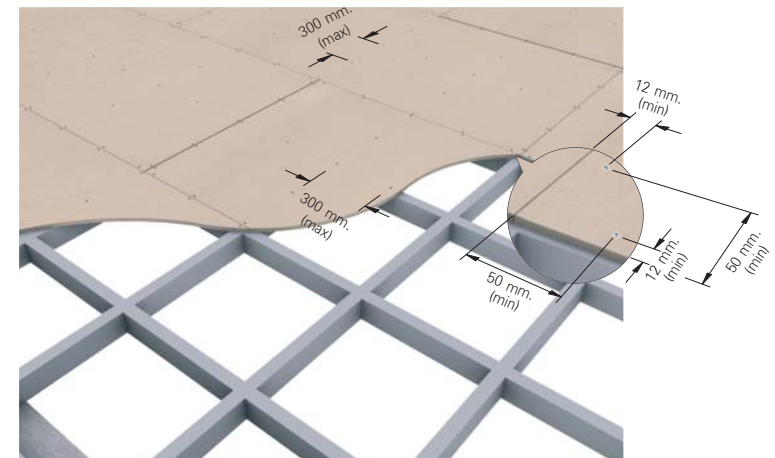


Figure 7 : SHERA flooring board fixing details.

Floor Board & dec' floor Tile Underla

flooring board

dec' floor

● Sheet Layout

Sheet should be laid in staggered pattern (brick pattern). However, ensure that edges of board must always lie on the supporting grid joist. See figure 8 for layout details.

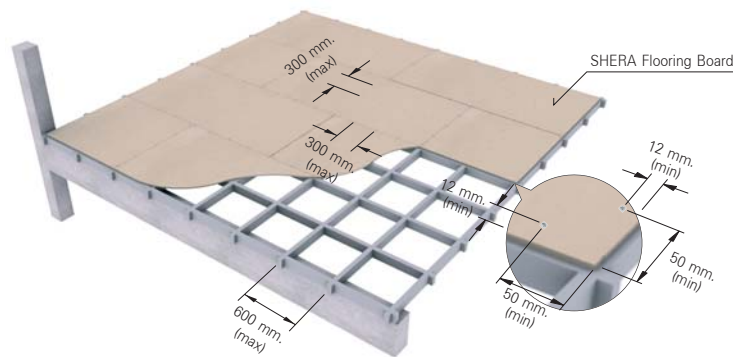


Figure 8 : SHERA flooring Board fixing on grid joist

● Joint

For flooring application, all sheets except at movement joint should be butted closely together. For the movement jointing details, please refer to page 35-38

● General

For general information on framing, fixing, and jointing please refer to page 11-20 For other special installation details and work instruction, see page 33-39.

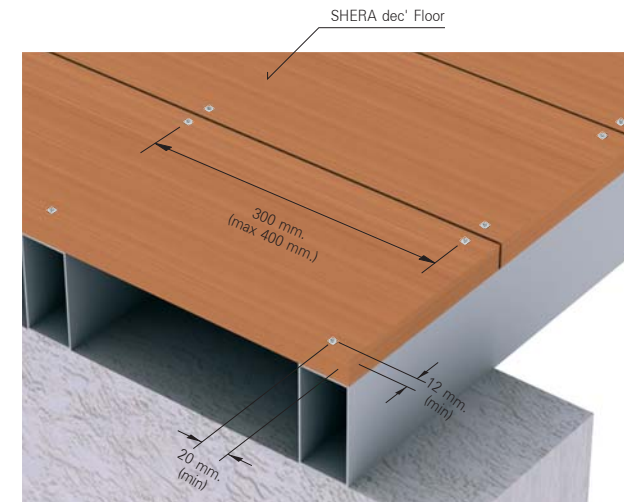


Figure 9 : SHERA dec' floor fixing details

● Fixing

Fasteners must locate at more than 12 mm. from dec' floor edges and 20 mm. from dec' floor corners. Fasteners shall be fixed on both sides of the plank and at spacing equal to joist spacing. See figure 9 for fixing details.

Floor Board & dec' floor Tile Underla

dec' floor

● Structural Floor Installation

SHERA dec' floor can be fixed on both timber and steel joist. Check table 2 in page 14 for load bearing capacity of dec' floor at different joist spacing.

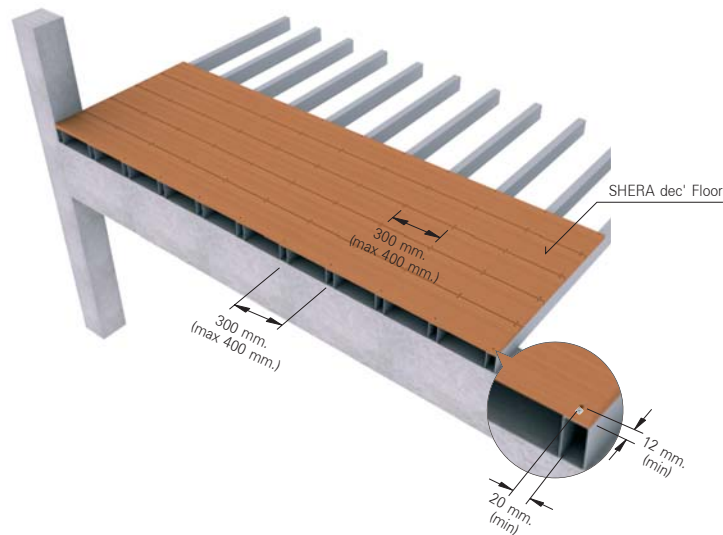


Figure 10 : SHERA dec' floor fixing on one-way joist.

- When load bearing capacity of dec' floor does not meet the building requirement, especially for smaller width plank, SHERA 10 mm. thickness underlay board is recommended for used as an underlay. Please refer to load bearing capacity of SHERA dec' floor with SHERA 10 mm. underlay board. in table 3 , page 15

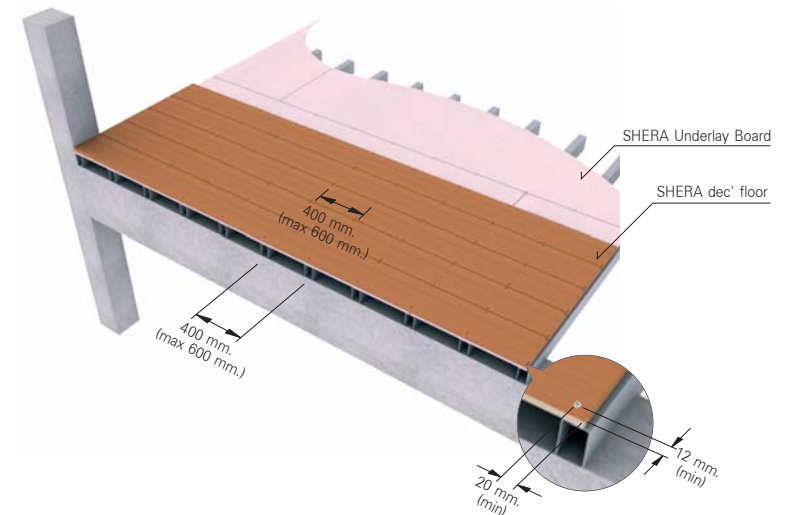


Figure 11 : SHERA dec' floor fixing on underlay board and one-way joist

Floor Board & dec' floor Tile Underlayment

dec' floor

- When higher load bearing capacity is required, 300 mm. width dec' floor installed on 300 mm. spacing grid joist is recommended for usage. In this case, load bearing capacity will equal to 330 kg. for point load and 3,500 kg./m² for uniform distributed load
- Installer should ensure that edges of dec' floor must always lie on the supporting grid joist

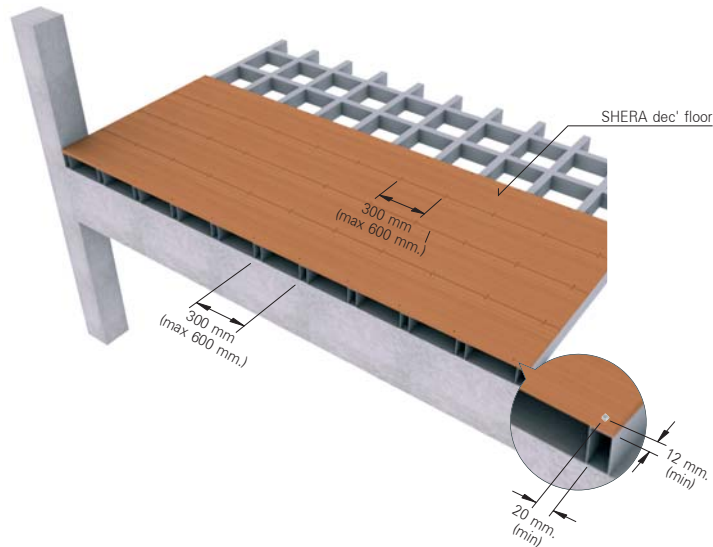


Figure 12 : SHERA dec' floor fixing on grid joist

- Decorative Floor Installation
dec' floor can be installed directly on the top of existing solid structural floor as long as the substrate was proved to have enough degree of leveling and enough load bearing capacity for additional dead load.

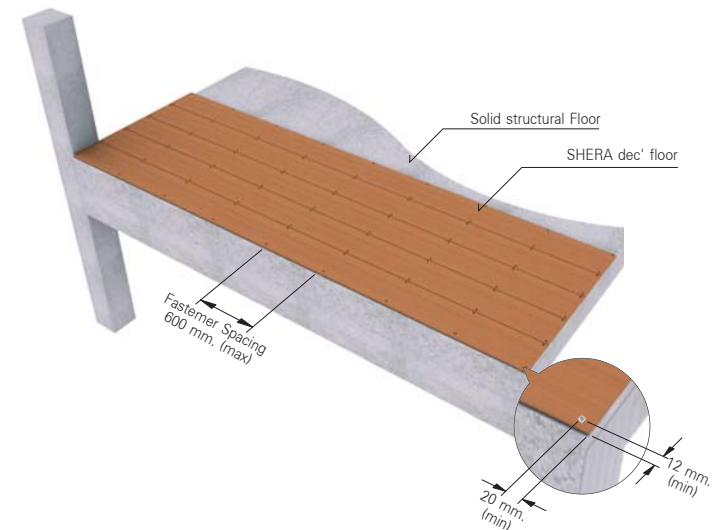


Figure 13 : SHERA dec' floor fixing on solid floor

- Joint
For internal area, all sheets except at movement joint should be butted closely together. For the movement jointing details, please refer to page 35-38

Floor Board & dec' floor Tile Underlay

underlay board

● General

For general information on framing, fixing, and jointing please refer to page 11-20 For other special installation details and work instruction, see page 33-39.

● Fixing

Fasteners must locate at more than 12 mm. from board edges and 50 mm. from board corners. Maximum fastener spacing is 300 mm. See figure 14 for fixing details.

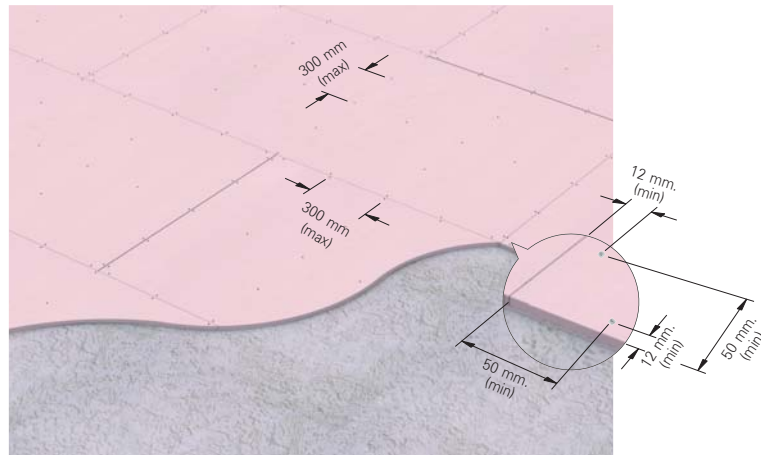


Figure 14 : SHERA Underlay board fixing details

● Sheet Layout

Sheet should be laid in staggered pattern (Brick Pattern). See figure 15 for layout details.

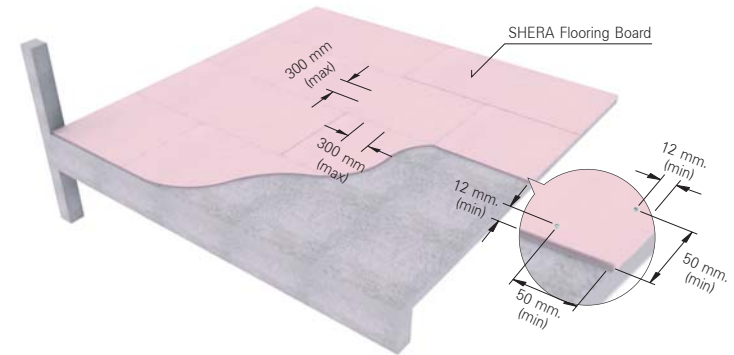


Figure 15 : Sheet layout for underlayment

ceramic or vinyl underlay

- Underlay board can be used as ceramic tile, vinyl, parquet or carpet backing / leveling board. Those materials can be fixed by using normal adhesive with concrete floor. Please contact your local manufacturer of adhesive for more information.

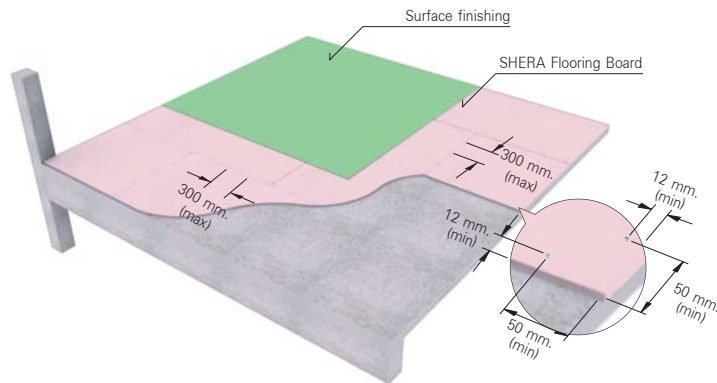


Figure 16 : Ceramic Tile Underlay



Special Installation Details 33

Movement Joint
Surface Finishing

Installation Details

movement joint

- Movement joint must be provided where there are existing structural joints in floor, periphery of the floor next on the wall. Gap between the edges of sheets at movement joint should not be less than 6 mm. and should be sealed with SHERA sealant PU 25. Please see the following pictures for more details.

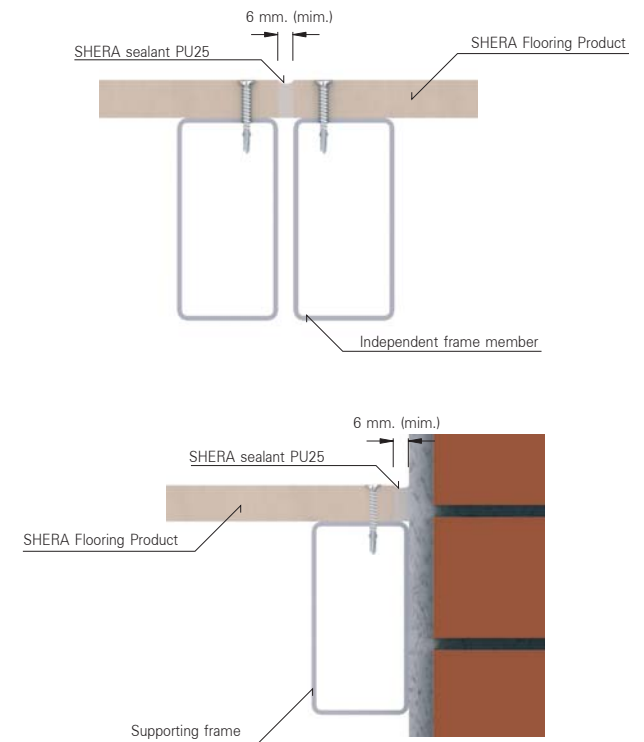


Figure 17 : Movement joint details

- Movement joint must also be provided where floor length or width exceed 5.0 meter. Joints should be located at around the center of the floor. Please see figure 18 for more details.

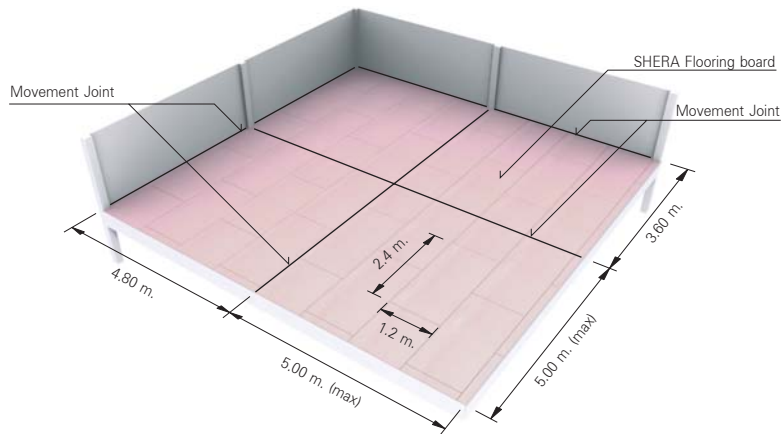


Figure 18 : Movement joint (example 1)

- Movement joint must also be provided where changes of floor direction occur; i.e. doorways, L or T shape room, and etc. Please see figure 19 for more details.

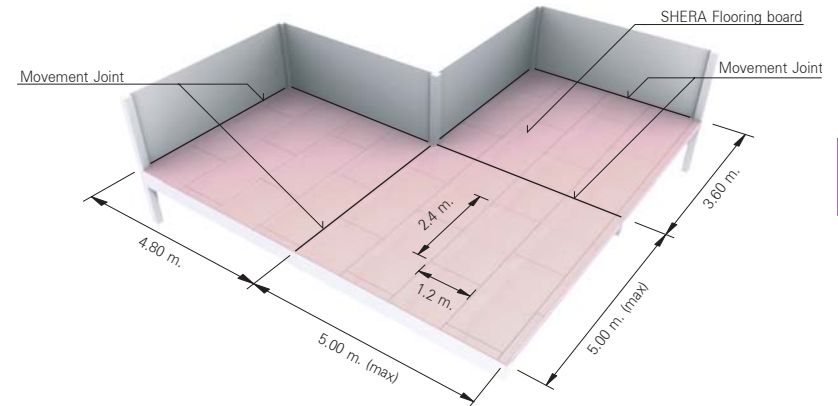


Figure 19 : Movement joint (example 2)

movement joint

- When SHERA flooring product is to be furnished by tile parquet or vinyl, make sure that movement joints be carried through the top of the floor surface. See figure 20 for details.

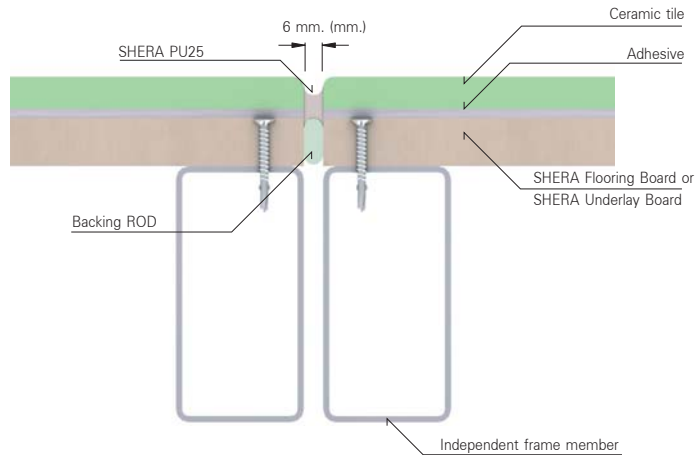


Figure 20 : Movement joint Details

surface finishing

- SHERA flooring collection can be furnished with either water based acrylic paint, carpet, parquet, vinyl or ceramic tiles. Please contact your finishing material manufacturers for more details about application recommendation.

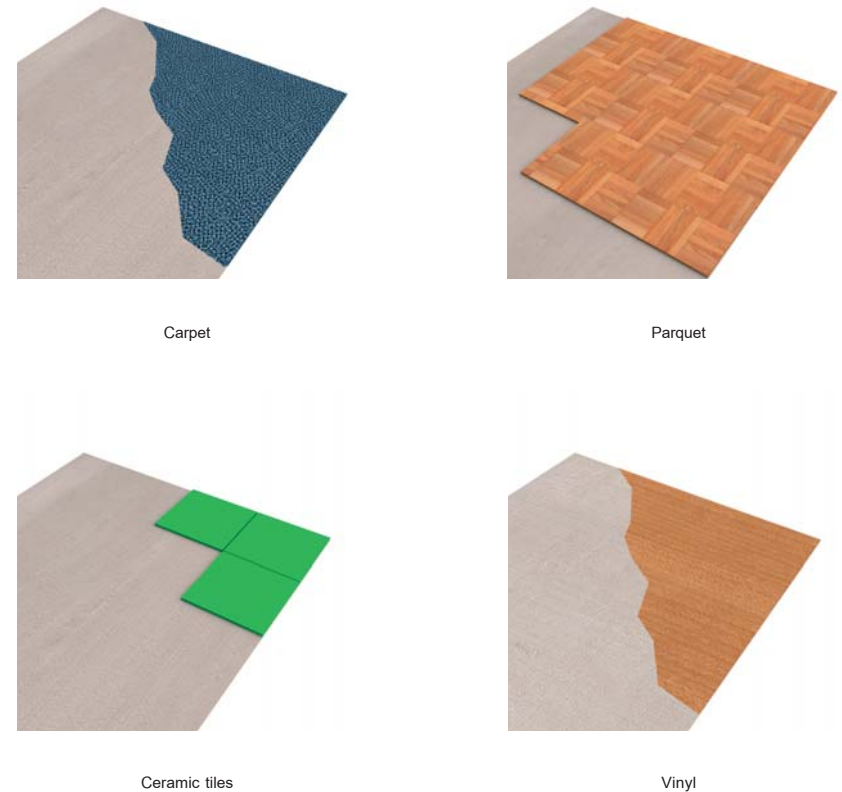


Figure 21 : Surface Finishing

Product Feature



Sound
Insulation

SHERA board has been tested for sound insulation properties according to ASTM E90-99 standard. Optimum STC value obtained by SHERA ensures the satisfactory level of sound prevention in SHERA Board clad wall & ceiling systems.



Termite
Resistance

SHERA products are unaffected by termites and insects.



Low
Shrinkage

SHERA's Autoclave's Technology has enhanced product's dimensional stability. This property makes SHERA products suitable for a wide range of applications including exteriors , underlayment , and etc.

Cutting tools
Hole Forming

Work Instruction

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- General

SHERA sheet can be easily cut and prepare on site by using proper tools and methods

- Hand Saw



Figure 22 : Hand Saw

- Hand Guillotine



Figure 23 : Hand Guillotine

cutting tools

hole forming

● Power Saw

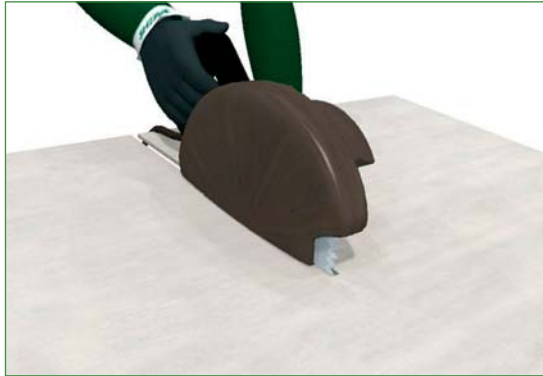


Figure 24 : Power Saw

● Fiber Cut



Figure 25 : Fiber Cut

- Pre-drilling series of small hole around the perimeter of the holes, then using the hammer to tap out the circle piece from the sheet
- For a large hole opening, open small hole around the center and then saw-cut from that hole towards corners of the opening. Score and snap away the rest of desired opening area.

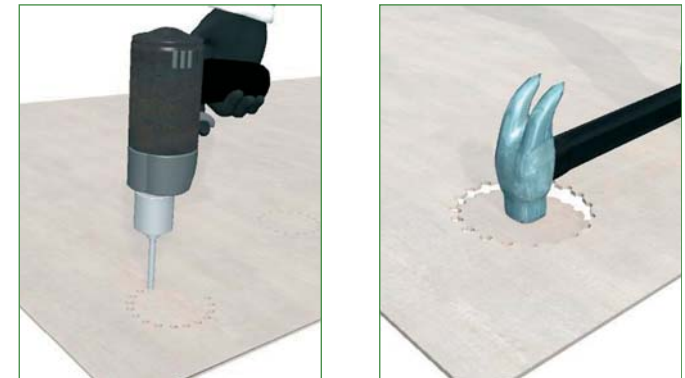


Figure 26 : Small Hole Forming

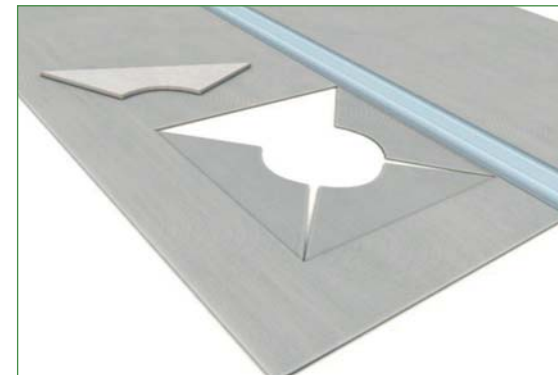


Figure 27 : Large Hole Forming

Product Feature



High Workability

SHERA products are easy to handle, easy to work with and easy to install. SHERA requires no special skills or tools other than those used in normal working practice.



Fire Resistance

SHERA products provide excellent fire resistance properties in terms of non-ignition, non-smoke creation, and non-fire propagation. SHERA's fire resistance complies with BS 476 part 5, 6 and 7 standards.



Not Brittle

SHERA offers exceptional property of higher strength with flexibility in comparison with other cladding materials such as ceramic tiles, asbestos cement sheets etc. The flexibility within the standard limit can create contemporary curved structures. SHERA can be easily drilled and nailed by simple tools eliminating time consumption & pre-drill operation.

Handling and Storage

Technical Data Sheet

Handling and Storage

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handling

storage

- SHERA products should be handled at both ends, at around 50 cm. from the ends. They should always be lifted by letting the width of products perpendicular to the floor.



Figure 28 : Board Handling

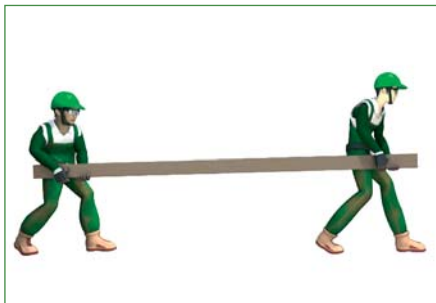


Figure 29 : Plank Handling

- SHERA should be handled and stacked carefully to avoid damages to the edges and corners. The maximum height of stack should not be higher than 1 meter and it should be supported by timber bearers at 50 cm. spacing.
- SHERA flooring should be stacked on dry and leveled ground. It is always recommended to store SHERA under cover in order to ensure that they will be in equilibrium moisture content condition prior to fixing and finishing. Installing SHERA when they are in wet or saturated condition may result in shrinkage or crack at joint or fitting

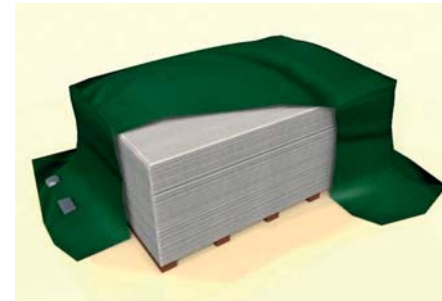


Figure 30 : Board Storage

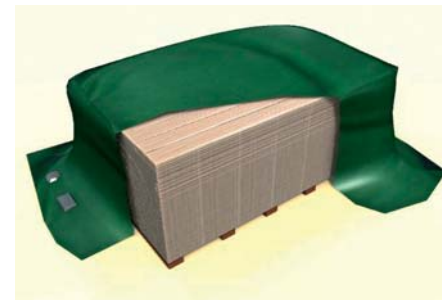


Figure 31 : dec' floor Storage

Table 4

Technical Data Sheet

	Standard	Unit	SHERA dec' floor	SHERA Flooring Board	SHERA Underlay Board
Physical Information					
Thickness Tolerance		mm.	±1.5	±1.5	±0.5
Density	ASTM C 1185	kg. / m. ³	1300 ± 50	1300 ± 50	1250 ± 50
MOR	ASTM C 1185	MPa	> 10.60 (EMC)	> 10.00 (EMC)	> 10.00 (EMC)
MOE	ASTM C 1185	MPa	3100 ± 450 (WET)	4500 ± 500 (WET)	6500 ± 500 (EMC)
Water Absorbtion	ASTM C 1185	%	≤ 35 %	≤ 35 %	≤ 35 %
Moisture Content	ASTM C 1185		≤ 12 %	≤ 12 %	≤ 12 %
Water Tightness	ASTM C 1185		Pass	Pass	Pass
PH Value			7 - 8	7 - 8	7 - 8
Fire Resistance Properties					
Ignitibility	BS 476 Part 5		P	P	P
Fire Propagation Index	BS 476 Part 6		I = 0	I = 0	I = 0
Surface Spread of Flame	BS 476 Part 7		Class 1	Class 1	Class 1
Durability Properties					
Freeze / Thaw Resistance	ASTM C 1185		Pass	Pass	Pass
Warm Water Resistance	ASTM C 1185		Pass	Pass	Pass
Heat / Rain Resistance	ASTM C 1185		Pass	Pass	Pass
Soak / Dry Resistance	ISO : 8336 Part (E)		Pass	Pass	Pass



SHERA MAHAPHANT GROUP

Green Spirit

Our R&D team's dedicated work on the quest of New GREEN Products from GREEN Technology for GREEN Living has resulted into unprecedented & fabulous range of environmental friendly products. We, MAHAPHANT Group, are proud to present SHERA as a demonstration of human respect for nature.

SHERA Product Collection, articulated from green concept, is offered from insightful understanding about our consumer requirement.

SHERA offers the best substitution to natural wood with a contemporary range of green products suitable for all modern & classical constructions.

SHERA's embedded beauty with added resistance against fire, termite, and moisture makes it an apt material for various applications in flooring, siding, ceiling and roofing.

Green Fiber-Cement Product & Technology for Green Living

Green Products

- Non asbestos products.
- Water based (Oil-free) color.
- Use recycled fibres as raw material.
- Farm shrubs (non-forest) used as raw material

Green Technology

- Reduce production energy consumption.
- Reduce production Waste.
- Use recycled energy in production.

Green Living

- Reduce waste from construction.
- Promote clean & speedy construction.
- Energy saving residence.
- Non-toxic material.
- Substitute to wood- saves nature.

SHERA

NON
ASBESTOS

www.mahaphant.com



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