

CONSTRUCTION PLAN LITUM staggered pattern

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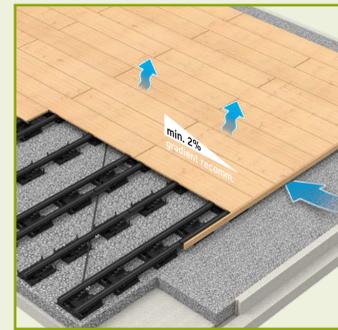
megaplaner 3d
planning software

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FIX STEP basis sub-structure



Open gap without groove strip P5

FIX STEP comfort sub-structure (raised)



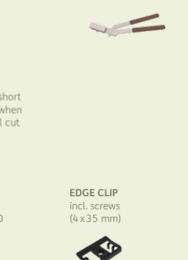
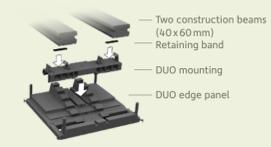
Closed gap with groove strip P5*
- Only possible with raised structure at heights of 166 mm and above (third FIX STEP step) provided comfort pad and attachment part are used



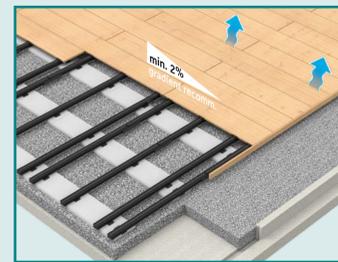
Standard panel



Edge panel



Basis concrete edge stone sub-structure

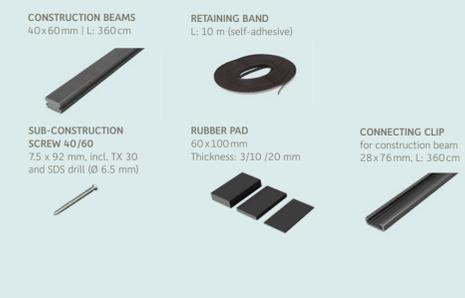
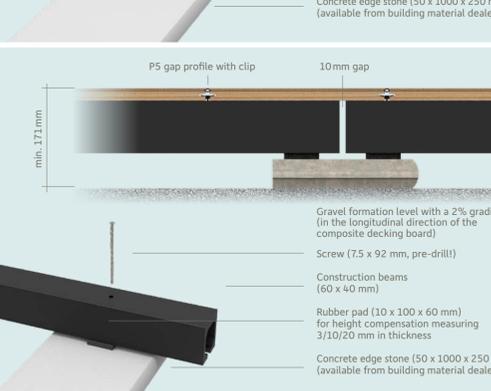
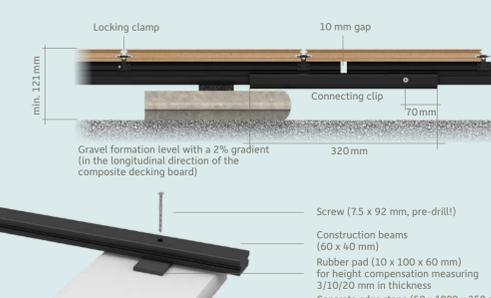


Open gap without P5 gap profile

Raised concrete edge stone sub-structure



Closed gap with groove strip P5
- only with a raised superstructure using a 90 x 90 mm construction beam



LITUM Composite decking board

The LITUM composite decking board unites the best properties of 3 material worlds: Wood, polymer and stone. The droved surface produces a natural interplay of colour and light reflections.

The solid appearance of the board combines the visual characteristics and ease-of-care of a composite board with the positive attributes of wood. We mix our seasoned wood-polymer material with stone granules to create a pleasant surface that spoils even bare feet.



This basic construction plan explains the standard structure versions for rectangular decks when laying composite decking boards in staggered pattern. Special styles, mitre cuts, braces and diagonal laying are illustrated individually in our "megaplaner".

www.megawood.com/en/service/3d-planning



YOUR DEALER

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Planning principles

- The megawood® construction plan "Litum staggered pattern" forms the basis for all of the laying variations! No warranty is provided in the event of deviations being made from the construction plan or should items be used other than original megawood® items!
- This basic construction plan explains the standard structure versions for rectangular decks with composite decking board assembly in the longitudinal direction in a semi-offset pattern. Special styles, mitre cuts and diagonal laying are illustrated individually in our "megaplaner": www.megawood.com/en/service/3d-planning
- Lay the composite decking boards in a longitudinal direction with an adequate gradient in order to ensure that water is always able to drain off from the deck, this being conform with the principles of structural wood preservation. An adherence to this results in you reducing deposits of organic substances, water stains and waterlogging.
- Applications that require building approval are to be provided with a statically sufficiently dimensioned, supporting and fall-through proof sub-structure as a support for megawood® composite decking boards or substructures/construction planks.
- A min. gradient of 2% is recommended for deck superstructures with an open gap. A min. gradient of 2% is absolutely necessary for deck

superstructures with a closed gap.

- Ensure adequate bottom and rear ventilation!
- Avoid waterlogging by using a drainage system that is adequately dimensioned!
- Ensure an unrestrained expansion of the terrace deck (min. distance of 20 mm between the composite decking boards and solid components)!
- Always pre-drill all holes so that the part that is to be fixed is 2 mm larger than the screw diameter and the retaining drill hole is 0.5 mm smaller than the screw diameter!
- All dimensions are to be checked on site!

Preparation and sub-structure

- Prepare the circumferential soil formation 500 mm larger in size than the terrace deck and with a 4% gradient.
- Create a weight-bearing and frostproof gravel or crushed rock bed with a 2% incline and screed with fine gravel (level out any unevenness).
- Do not fill in any cavities between the construction beam, the concrete edge stone and the base of the Fix Step!

Avoid soil contact! (Exception: items from the construction plank range)!

Lay the substructure system in accordance with the construction plan!

Composite decking board assembly (staggered pattern)

- Differences in the composite decking boards are intended and underline the natural wood look.
- Mix the composite decking boards before laying them in order to support the effect.
- Do not exceed the max. 50 mm composite decking boards protrusion over the sub-structure!
- Short floorboard sections (that can be fastened to the lower edge with less than 3 lock clamps or clips) on the diagonal or mitre cut can be screwed to the construction beam from above (M6 x 40 mm screw). See "Special Features" on the right hand side.
- Assembly and production-related dimension tolerances regarding the length, width and thickness are to be taken into account and checked!

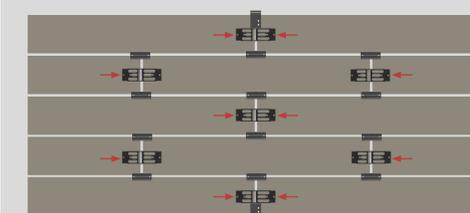
Special features

Laying on mitres for L, U, O-shaped terraces



- Double sub-construction along the 45° section.
- Insert sealing tape into the mitre joint on both sides.
- Only push the composite decking board into the mitre profile by 10 mm in order to ensure the expansion.

Distanz Fix and Arretier Fix screw connection

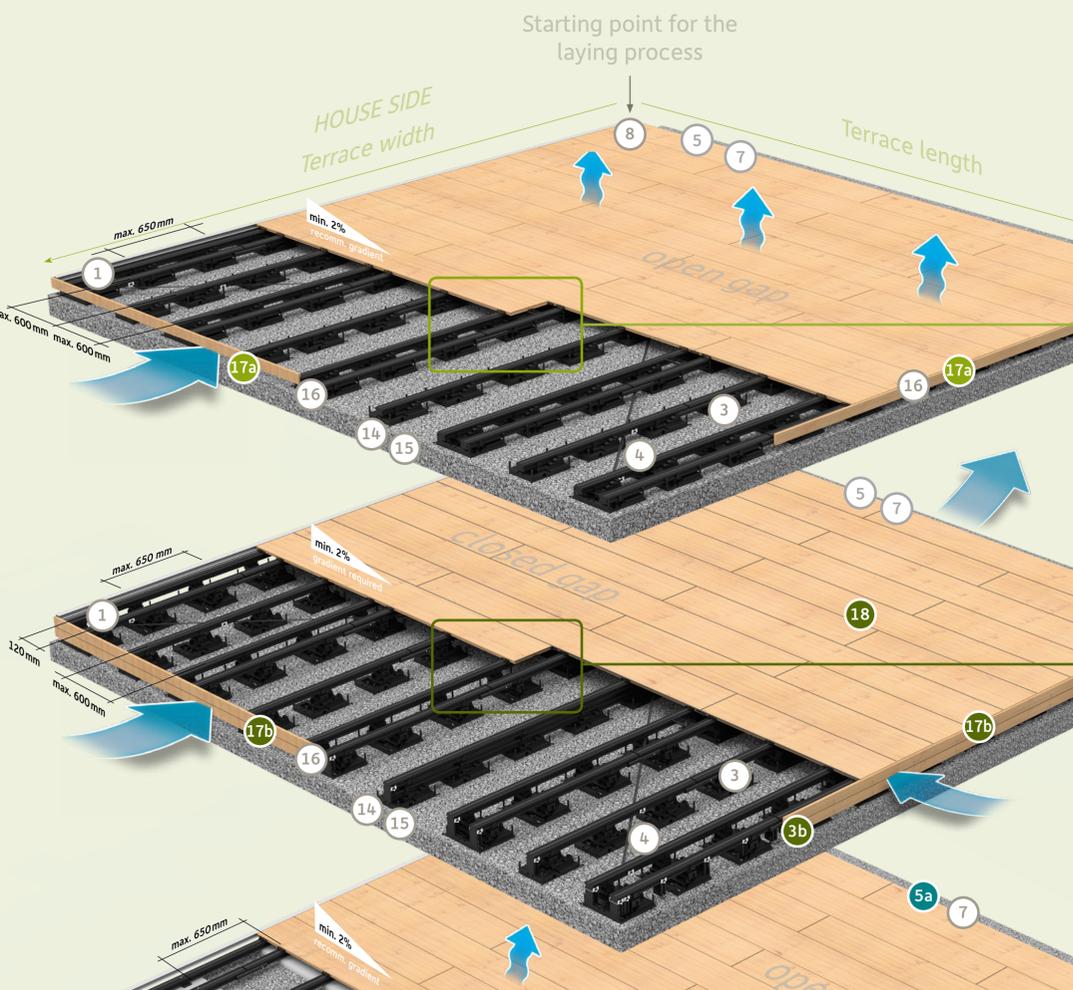
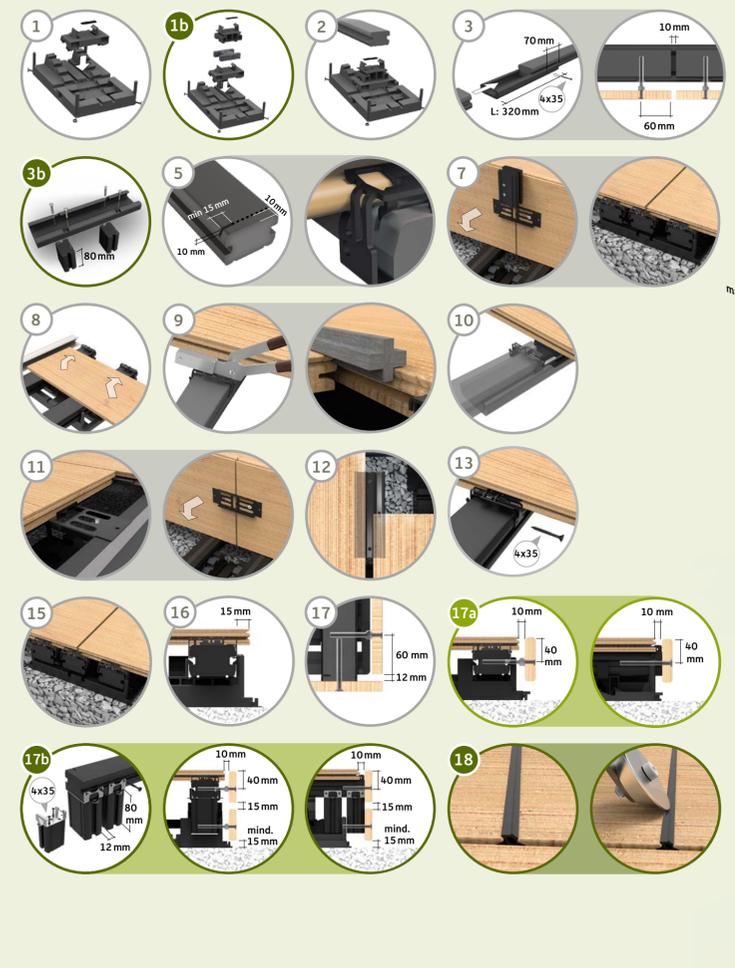


- The Distanz Fix functions as a spacer when dealing with heading gaps on the front side.
- The Distanz Fix is always screwed on to the side of the external composite decking board.
- The Distanz Fix is not screwed to interior composite decking boards.
- In order to lock the height, insert half of the Arretier Fix into the lower groove of each composite decking board gap (longitudinal side).
- Instead of the Arretier Fix, a block consisting of a construction beam with locking clamp edge is screwed to the outer side of the first / last decking board row.

Construction plan with FIX STEP

- SUB-CONSTRUCTION**
- Attach the FIX STEP fixtures centrally using a strip of retaining band, click into the panels and position, ensure the height adjustment is identical. Position the FIX STEP DUO edge panels at the start of the terrace, distribute the FIX STEP standard fixtures in a parallel manner – pay attention to distances. Position the FIX STEP DUO edge panel on each front side composite decking board gap in a staggered pattern. Position further FIX STEP DUO edge panels at the end of the terrace. If required, turn the external FIX STEP panels in order to prevent a protrusion of the construction beams.
 - RAISED STRUCTURE**
Ensure that the comfort pad and the attachment part are used when assembling the FIX STEP panels.
 - With the smooth side facing upwards, click the construction beams (40 x 60 mm) into the FIX STEP fixtures.
 - If the terrace width is greater than 3.6 m, always arrange the construction beam joints in an offset manner. Cut the connecting clip to 320 mm, connect the beam joints with this clip and then tightly screw on one side. Position the smooth edge boards and construction beam joints in the same location.
Note: Recess the connecting clip measuring 20 mm in width and 10 mm in depth in order to assemble the smooth edge board in the area of the screw connection at a later date. **Align the construction beams exactly.**
 - RAISED STRUCTURE**
In the event of a double smooth edge board, assemble construction beam units measuring 80 mm in length to each connecting clip using screws.
 - Position perforated tape beneath the construction beams and screw on to all construction beams using an assembly clip.
 - Saw into the construction beam, lock the locking clamp edge in the groove.
 - Adhere securing tape to each construction beam. Do NOT apply the securing tape centrally on each double lower edge (see Distanz Fix positioning point 11).
 - DECKING BOARD LAYING (STAGGERED PATTERN)**
Position the first two composite decking boards next to each other. Cut one construction beam section to length and screw to one of the two front sides of the panel from beneath in order to lock the height (12 mm protrusion to the composite decking board). Position the Distance Fix beneath this in order to adjust the gap and fasten to the exterior panel. In order to do so, erect both composite decking boards, screw the construction beam section and Distance Fix and put the composite decking boards back down. Position the lock clamp edge on to the construction beam section.
 - Insert the connected composite decking boards into the house connection profile (optional) and push into the positioned edge clamps.
 - Place the locking clamps on the construction beam and lock in place with the zammer/pliers. Place the groove strip on to the fully assembled locking clamp and, together, push into the composite decking board groove.

- If there is a groove in the construction beam, it may be necessary to use a groove bridge in order to also be able to securely fasten the locking clamp in the gap area.
- When dealing with front-sided joints in a staggered pattern, centrally position the Distanz Fix onto the double sub-construction between the composite decking boards. On the exterior composite decking boards, screw the Distanz Fix into place from beneath. In order to do so, erect both panels, position the Distanz Fix, screw into place and then put them back down. **Note:** Ensure that the Distanz Fix does not touch the securing tape.
- In order to lock the height (longitudinal side), insert half of the Arretier Fix into the lower gap on the panel joint and couple with the surrounding circumferential composite decking board. Also couple the subsequent composite decking board with the dual-sided Arretier Fix.
- Once 4 panel rows have been laid, take a intermediate measurement and screw the respective locking clip row to the construction beams. Repeat until the penultimate composite decking board is reached.
- Cut the construction beams to length, ensuring that a 10 mm protrusion remains and saw into the beam (see Detail 5).
- Instead of the Arretier Fix, cut one construction beam section to length and screw to one of the two front sides of the panel in order to lock the height (12 mm protrusion to the composite decking board) when completing the last composite decking board row. In order to do so, position and erect both composite decking boards, screw the construction beam section (and Distanz Fix) and put the composite decking boards back down. (See Detail 7). Position the lock clamp edge on to the construction beam section. Then lock the composite decking boards with the lock clamp edge.
- Cut the frontal side of the composite decking boards to size with a 15 mm protrusion, chamfer the cutting edge.
- GLATTKANTBRETTNER**
The frontal side of the smooth edge boards must be 12 mm shorter than the construction beams at the end of the terrace – pay attention to distances.
- BASIC STRUCTURE**
Frontal side and longitudinal side assembly of the smooth edge boards.
- RAISED STRUCTURE**
Assemble construction beam units measuring 80 mm in length complete with assembly clip at the start and end of each construction beam. Screw double pieces on to the terrace corners using two assembly clips, indent the DUO panel where necessary. Frontal side and longitudinal side assembly of the smooth edge boards.
- JOINT PROFILE**
RAISED STRUCTURE
Following the deck assembly, the P5 gap profile is inserted into the upper groove on the longitudinal and front faces with the aid of the roller attachment for the Zammer.



Note: The illustration serves to make the positioning of the individual articles clear. Observe the laying sequence!



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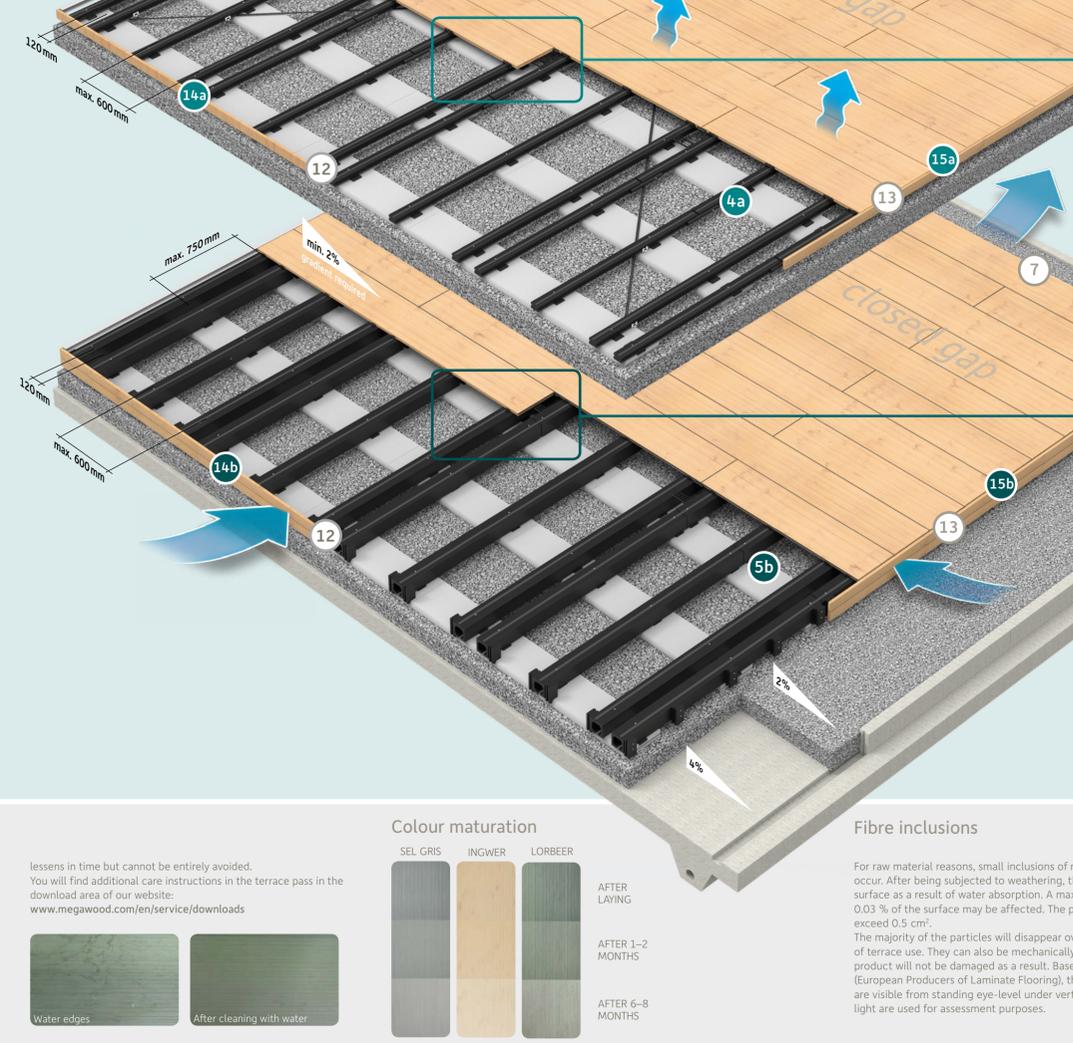


Note: The illustration serves to make the positioning of the individual articles clear. Observe the laying sequence!

Construction plan with concrete edge stone

- SUB-CONSTRUCTION**
- BASIC STRUCTURE**
Lay concrete edge stones (1000 x 250 x 50 mm) at a centre distance of 650 mm on the gravel bed with gradient, turn the frontal side inwards by 5 cm in the direction of the construction beams.
 - RAISED STRUCTURE**
Lay concrete edge stones (1000 x 250 x 50 mm) at a centre distance of 750 mm on the gravel bed with gradient, turn the frontal side inwards by 100 mm in the direction of the construction beams.
 - BASIC STRUCTURE**
Evenly distribute the construction beams (40 x 60 mm) transversely to the concrete edge stones (groove at the bottom), pay attention to a 50 mm protrusion.
 - RAISED STRUCTURE**
Evenly distribute the construction beams (90 x 90 mm) transversely to the concrete edge stones, pay attention to a 100 mm protrusion.
 - Arrange two beams at the start and end respectively. Also position two beams (120 mm clearance) respectively on each front side composite decking board in a semi-offset pattern. Place 10 mm rubber pads beneath the construction beams and potentially compensate for gradient deviations using further rubber pads.
 - In the event of a terrace width greater than 3.6 m, always arrange the construction beam joints in an offset manner.
 - BASIC STRUCTURE**
Cut the connecting clip to 320 mm, connect the beam joints with this clip and then tightly screw on one side.
 - Screw the ends of the construction beams throughout the entire edge area. Screw the two outer as well as the central construction beams with every second concrete edge stone. Cut the construction beams to size, ensuring they are flush. Saw into the construction beam, lock the locking clamp edge in the groove.
 - RAISED STRUCTURE**
Align the construction beams exactly! Screw the sub-construction in the edge area as well as both start and end beams to the middle beam. Cut the construction beams to size, ensuring they are flush, 100 mm protrusion. The 120 mm long construction beams measuring 60 x 40 cm are placed upright and then fastened to the ends of the construction beams on the left and right hand sides. Screw the edge clip flush to the end of the construction beam in order to fasten the composite decking boards.
 - Adhere securing tape to each construction beam. Do NOT apply the securing tape centrally on each double lower edge (see Distanz Fix positioning point 9).
 - DECKING BOARD LAYING (STAGGERED PATTERN)**
Position the first two composite decking boards next to each other. Cut one construction beam section to length and screw to one of the two front sides of the panel from beneath in order to lock the height (12 mm protrusion to the composite decking board). Position the Distance Fix beneath this in order to adjust the gap and fasten to the exterior panel. In order to do so, erect both composite decking boards, screw the construction beam section and Distance Fix and put the composite decking boards back down. (See Detail 1).
 - BASIC STRUCTURE**
Insert the connected composite decking boards into house connection profile (optional) and push into the positioned edge clamps.
 - Place the locking clamps on the construction beam, lock in place using the zammer/pliers, insert into the composite decking board groove.

- If there is a groove in the construction beam, it may be necessary to use a groove bridge in order to also be able to securely fasten the locking clamp in the gap area.
- RAISED STRUCTURE**
Following the assembly of the first composite decking board, push the house connection profile to the panel end as a border strip to the house facade. Fix the composite decking board into place using a clip. Tighten the screw in such a manner that the clip is parallel with the lower edge.
- Apply the next composite decking board, use a spacer if necessary. **Observe points 9 and 10.** Repeat the process until the terrace is fully laid.
- When dealing with front-sided joints in a semi-offset structure, centrally position the Distanz Fix onto the double sub-construction between the composite decking boards. On the exterior composite decking boards, screw the Distanz Fix into place from beneath. In order to do so, erect both composite decking boards, position the Distanz Fix, screw into place and then put them back down. **Note:** Ensure that the Distanz Fix does not touch the securing tape.
- In order to lock the height (longitudinal side), insert half of the Arretier Fix into the lower groove on the panel joint and couple with the surrounding circumferential composite decking boards. Also couple the subsequent composite decking board with the dual-sided Arretier Fix.
- BASIC STRUCTURE**
Once 4 panel rows have been laid, take a intermediate measurement and screw the respective locking clip row to the construction beams. Repeat until the penultimate composite decking board is reached. Cut the composite decking boards to length in the edge area facing the construction beams, chamfer the cutting edges.
- Instead of the Arretier Fix, cut one construction beam section to length and screw to one of the two front sides of the panel in order to lock the height (12 mm protrusion to the composite decking board) when completing the last composite decking board row. In order to do so, position and erect both composite decking boards, screw the construction beam section (and Distanz Fix) and put the composite decking boards back down. Then fasten the panels with the edge lock clip (see Detail 9) edge clip.
- SMOOTH EDGE BOARDS**
The frontal side of the smooth edge boards must be 12 mm shorter than the construction beams at the end of the terrace – pay attention to distances. (see Detail 14 for the Basic Structure and 15 for the Raised Structure)
- Circumferentially fasten smooth edge boards to the sub-construction. On the frontal side, screw the smooth edge board to the sub-construction beams. (see Detail 14 for the Basic Structure and 15 for the Raised Structure)
- Screw every 500 mm in a parallel manner along the construction beams, apply spacer screws between the smooth edge board and the construction beam. (see Detail 15 for the Basic Structure and 16 for the Raised Structure)
- FUGENPROFIL**
RAISED STRUCTURE
Following the assembly of the deck, insert the P5 gap profile into the upper gap on the longitudinal and front ends using the Zammer roller attachment.



Care instructions

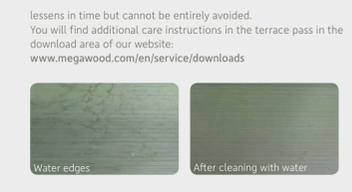
A min. 2% gradient makes care and cleaning easier. If the gradient is not observed, this may lead to the formation of water stains and organic substances are then able to settle and a higher degree of foiling is then probable. We recommend cleaning the terrace at least twice per year at temperatures of at least 15° C and to proceed as follows:

- Brush dry, loose dirt from the terrace deck.
- Sufficiently water the entire terrace deck.
- Allow the water to take effect for at least 15 minutes.
- Clean the terrace deck using water, a stiff brush or a scrubber and thoroughly rinse.

Stubborn stains such as soot, coal and grease can be removed using megaclean. Apply diluted megaclean to the pre-watered deck and rub in using a brush. Allow the megaclean to take effect until it foams, then scrub away and thoroughly rinse. The ideal megaclean effect occurs at outdoor temperatures of 20° C and above.

Water stains may form in the transitional area between covered and uncovered areas as a result of precipitation and environmentally-related dust particles. These stains can generally be removed using water and a scrubber and do not represent cause for complaint. The effect of the water stains

Colour maturation



Fibre inclusions



For raw material reasons, small inclusions of natural fibres may occur. After being subjected to weathering, they may rise to the surface as a result of water absorption. A maximum amount of 0.03 % of the surface may be affected. The particle size may not exceed 0.5 cm!

The majority of the particles will disappear over time as a result of terrace use. They can also be mechanically removed. The product will not be damaged as a result. Based upon the EPLF (European Producers of Laminate Flooring), the particles that are visible from standing eye-level under vertical incidence of light are used for assessment purposes.