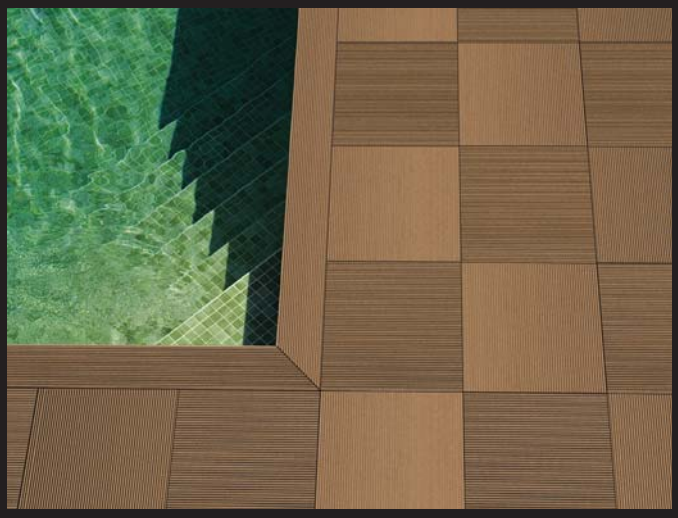
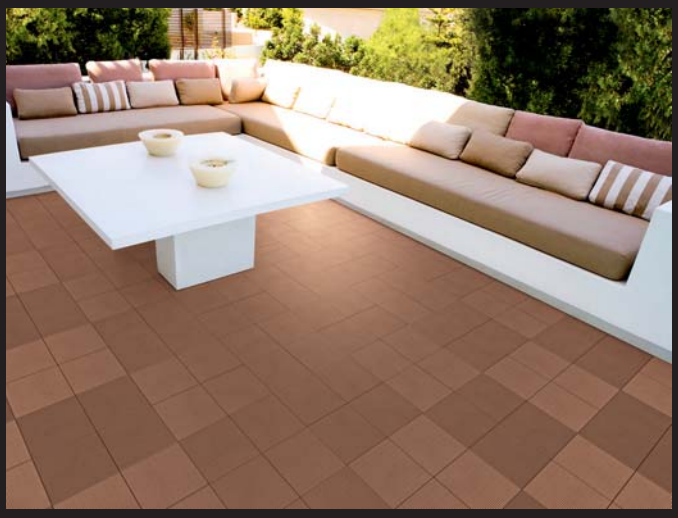
neourban_tile 442

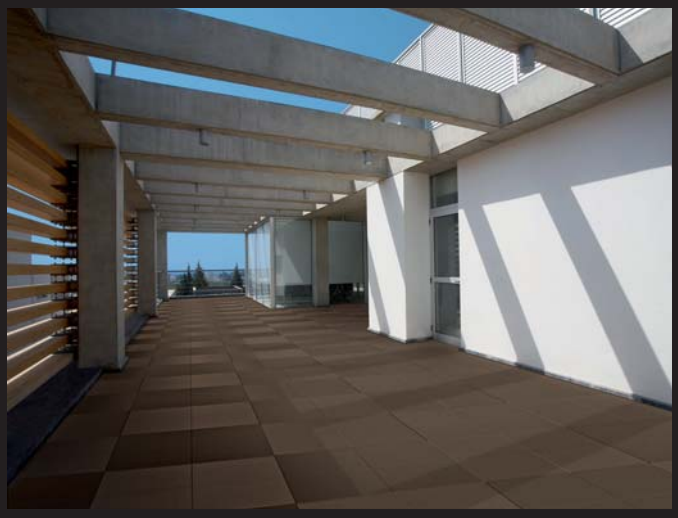
ultradesign composites™

a specialist division of Le Messurier

neourban_tile 442







The Future of Decking

Change is inevitable as worldwide demand for product innovation, whilst optimising resources, continues at a relentless pace. Ultradesign composites are supported by 160 years of experience in timber and building products, providing valuable experience and expertise to evaluate industry and environmental changes, and recognise significant turning points. This era of composites is one such turning point for the timber and building industry as well as the consumer.

New technologies have continued to improve across all frontiers, enabling composite products to be designed to not only match the manufacturing requirements but to also better suit the end use. The future thinking in composites has immediate cost and environmental benefits now and will be truly significant for future generations.

ultradesign composites™

a specialist division of Le Messurier

neourban_tile 442® is a contemporary composite of sustainably resourced wood fibres and recycled plastics (polymer). Engineered and manufactured in Germany to a modern design profile, it is environmentally friendly with an outstanding life cycle and warranty.

A leader for outdoor surfaces, the neourban_tile 442 material is stable and resistant to saltwater and fungi. With exceptional resistance to oils and UV exposure, neourban_tile's outstanding performance is matched with a 5 year warranty.

Offering exceptional benefits over traditional materials, neourban_tile 442 will not rot, crack, splinter or rust, and will require no sanding, painting or oiling. Termite resistant and exceptionally durable, neourban_tile 442 is a true low maintenance product.

The square 442mm tiles offer an attractive urban groove profile which can be laid in the same direction, alternating in a chequered pattern or offset by half tiles, providing a variety of floor design and texture options. The urban groove design profile is also very comfortable to walk on and provides superior slip resistance.

A convenient size and clever click connection makes for quick installation, whilst covered fasteners remain invisible and ensure a professional, stylish look. The fastening materials required are limited to a small number of screws and basic wood-working tools are entirely sufficient for the installation work.

The unique attributes of neourban_tile 442 has seen this product used nationally in all sectors, from iconic commercial and education projects to CBD studio apartments.

No Rotting

No Cracking

No Rust

No Sanding

No Oiling

No Splintering

Hidden Fixings

PEFC-Certified

Termite Resistant

Wood Polymer Composite

German Engineered & Manufactured

Easy to Care For & Low-Maintenance

CHOICE of 3 COLOURS

5 YEAR WARRANTY

Awards

2008: "Product of the Year"

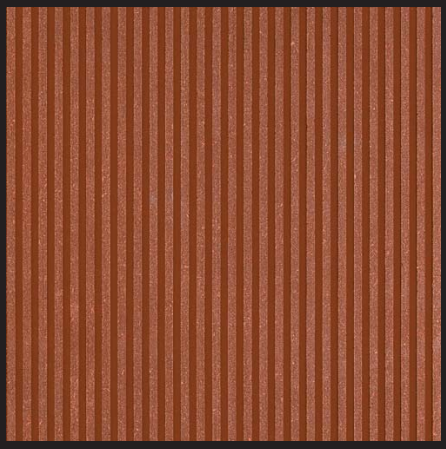
neourban_tiles received the 2008 "Product of the Year" award from Pro-K.

Focus Green Silber 2008

2008: "Focus Green"

neourban_tiles were honoured with the Design and Innovation Award of Baden-Württemberg in 2008.

Colours



neourban_tile 442

Specification Overview

Size [coverage]
442 mm x 442 mm x 38 mm
[with 3mm joint]

Weight
3.0 kg / tile

Composite
50% PEFC certified sustainable wood fibre
50% polymer PE [polyethylene]

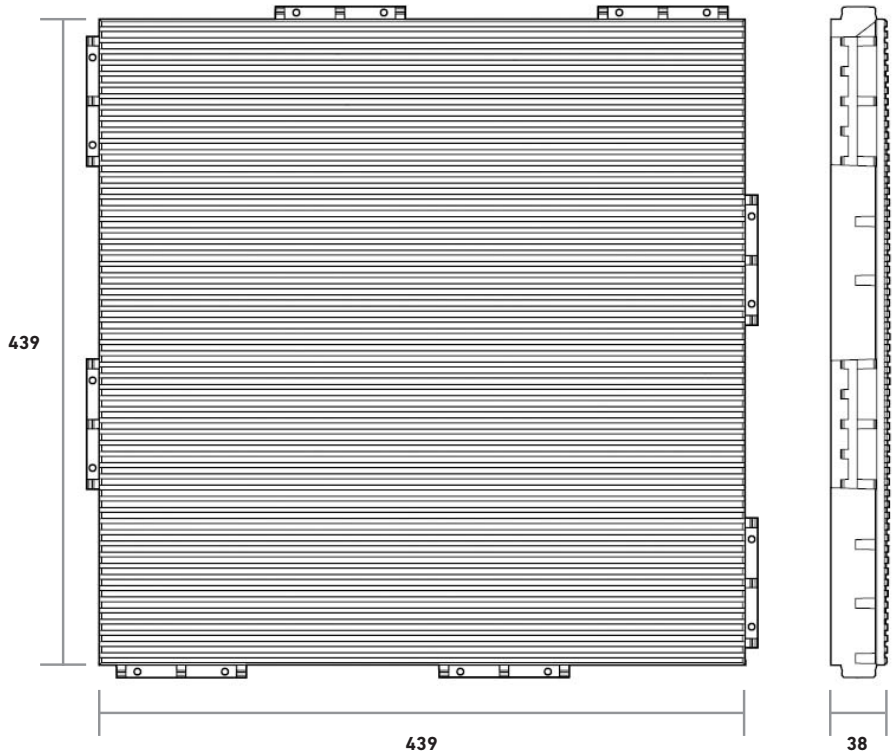
Finish
brushed urban groove

Colours
ash grey, bahama brown, terracotta

Warranty
5 years

Storage & Handling
» packs of neourban_tile 442 should be stored in a dry flat area, under cover and off the ground
» please note neourban_tile 442 is a finished product so please take care when handling

Dimensions



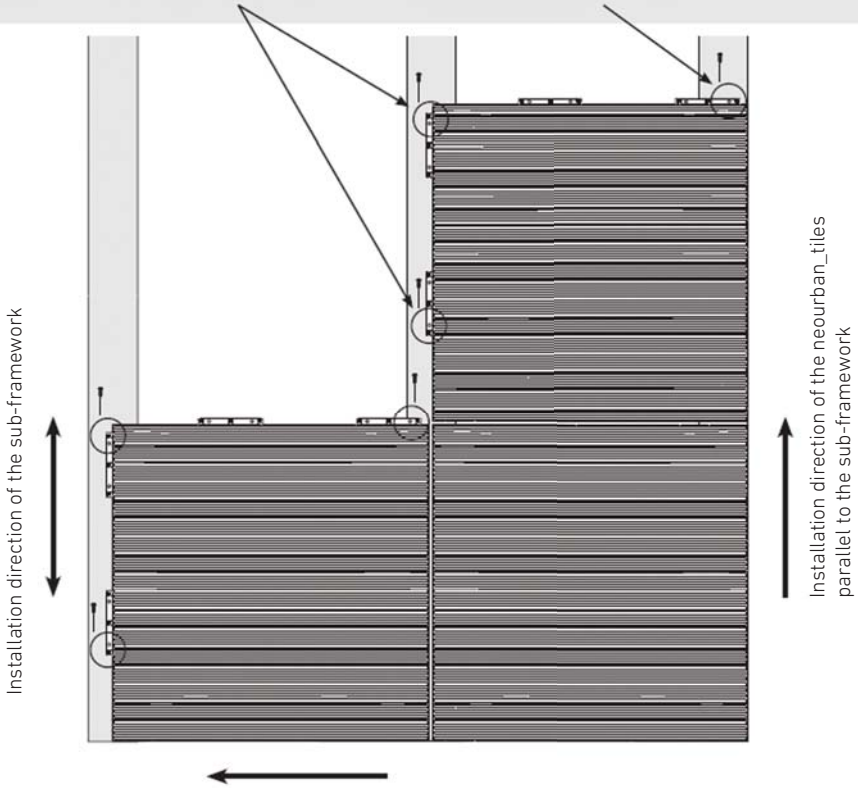
Technical Data

Maximum surface load	600 kg/m^2
Maximum point load	200 kg
Temperature resistance with regular use	-50 to +70 °C
Short-term temperature resistance	up to +120 °C

Fixing

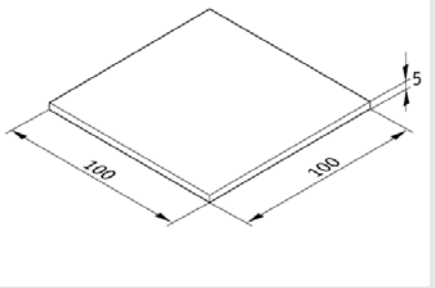
Always fasten **every** neourban_tile with at least **3** screws:

2 screws into one sub-framework profile **+** **1** screw into the neighbouring sub-framework profile

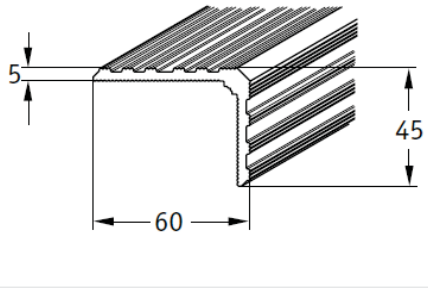


IMPORTANT: Every single neourban_tile must always be screwed to two sub-framework profiles. If this is not the case, the neourban_tiles will not be sufficiently secured relative to each other and the joints may spread apart.

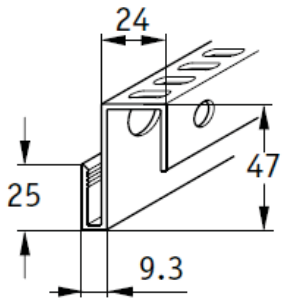
Fixing Accessories



rubber installation pad



cover angle
length 2000 mm



aliminium connection profile
length 4000 mm

1. General Information

1.1 Applicability

The information in this installation guideline is based on standard laying situations. Due to the endless diversity of possible floor layouts and terrace sizes, not every single application can be addressed with these installation instructions.

These installation instructions may be changed at any time without prior notice as a result of technical advancements. The most recent version is always available on the Internet (www.ultradesigncomposites.com.au). Please follow the instructions since no warranty can be provided in the event of deviation from these installation instructions.

1.2 Areas of Application

Self-supporting flooring on garden terraces, roof terraces, garden paths, concrete balconies, carport floors, swimming pool decking, etc. A load bearing substructure with sufficiently calculated dimensions is required as a base for the neourban_tiles such as a timber deck constructed to Australian Standards.

1.3 Laying Variations

The neourban_tiles can be laid in many variations: e.g. chequered pattern or with a single groove direction, half-offset or both mixed together. Naturally, various colours can be mixed together in any combination. For half-offset installation, the edge tiles of each second row must be cut in half.

1.4 Cutting

The neourban_tiles can be sawn, milled or drilled with all typical woodworking tools.

1.5 Changes in Colour

The neourban_tiles are dye penetrated and fade naturally over the course of time without losing the basic character of their colour.

As these are wood-based products, colour variations over time, caused by UV rays and moisture, are natural and to be expected. During the first weeks and months in particular (depending on weather conditions), a natural lightening of the tiles may occur, but this does not indicate a defect.

Slight colour fluctuations within a tile or a batch are natural and highlight the natural character of wood. However, these even out after development of the patina (natural greying of the top layer of wood particles at the tile surface).

Water spots may form at the transition between weathered and partially sheltered terrace surfaces. This effect occurs due to lignin, a natural constituent of wood that can be washed out under exposure to rain. These spots can generally be removed with large amounts of clean water and typical household cleaning tools.

This effect is minor on surfaces exposed to heavy sunlight or completely rinsed off by rainwater. These water spots do not impair the quality of the neourban_tiles and do not represent a defect.

1.6 Cleaning and Care

The neourban_tiles require no special care. However, larger instances of soiling should be cleaned off shortly after they occur.

To do this, brush off the neourban_tiles lengthwise with water and typical household detergents using a normal household cleaning tool. For stubborn dirt, a high-pressure cleaner may be used (max. 80 bar, at least 20 cm distance from tile surface, no rotary nozzle).

Spots and stains of oil, grease, mustard, etc. can be removed with the following products (for example):

- stain removal spray
- power grease remover
- multi-purpose cleaner

Using a brush can also be very helpful. Afterward, rinse off the tiles well with a large quantity of water.

1.7 Disposal

Scraps (cutting waste) can be disposed of as household or commercial waste. Larger quantities should be disposed of as bulky refuse or at a recycling centre.

2. Foundation Properties

A load-bearing, consolidated foundation of ballast, chippings or the equivalent is required. Sufficient drainage must be provided to prevent pooling; if necessary, a drain should be installed. For closed surfaces (e.g. concrete floors, on roof sheeting, etc), a sufficient grade and sufficiently dimensioned floor drains must be provided. Pooling of moisture under the tile surface must absolutely be avoided. ➲ See Figure 1

2.1 Concrete Floors (poured concrete slab)

The sub-framework must be laid on a concrete slab with a sufficient grade (see section 4.3) on top of the rubber pads 100 x 100 x 5 mm so that water arising underneath can flow away unhindered. The minimum total height from the top edge of the concrete slab is about 80 mm when using sub-framework bars.

Alternative: For absolutely level and solid foundations (concrete, asphalt, tile surfaces, etc.) with sufficient grade, it is possible to install the flooring without a sub-framework if the floor is bordered by an aluminium angle profile (supplied by the customer) with dimensions of 40 x 40 x 2 mm, for example. ➲ See section 6

2.2 Roof Terraces and Concrete Balconies with top-side sealing layer (bitumen sheeting, etc.)

To protect the sealing layer against mechanical damage, to compensate for unevenness and to ensure water drainage underneath the surface, rubber pads of 100 x 100 x 5 mm must be placed underneath the sub-framework bars.
➲ See section 4.3

It is not necessary to lay out protective matting over the entire surface. The minimum total height from the top edge of the seal layer is about 80 mm when using the sub-framework.

2.3 Natural Ground (soil)

In case of unconsolidated ground, the soil should be dug out accordingly. Then stones or the like should be poured in, covered with an approx. 5 cm layer of gravel bed and spread level. Finally, concrete paving slabs of approx. 20 x 20 x 4 cm should be laid as a base for the sub-framework.
➲ See section 4.3

The minimum total height from the top edge of the gravel bed is about 120 mm when using sub-framework bars.

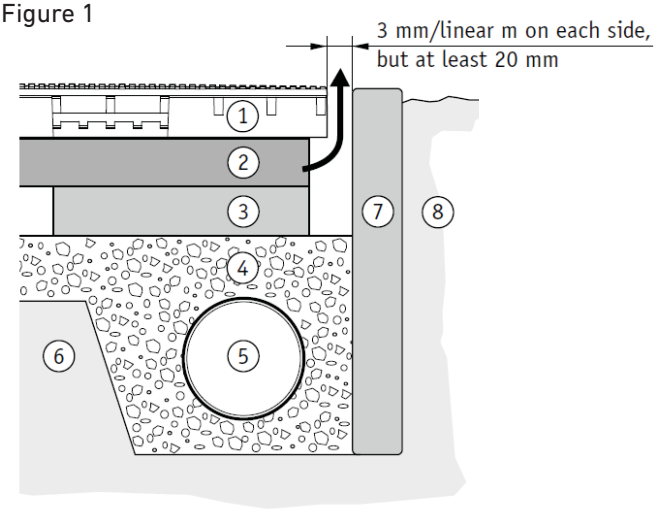
3. Ventilation

For installations with sub-framework or on concrete paving slabs, the space between and below the sub-framework may not be filled in.

For terrace surfaces situated at ground level, a border of paving blocks or the like should be provided as separation from the turf or soil. A direct connection between the terrace surfaces and turf or soil should absolutely be avoided.

For proper ventilation, an open ventilation gap of at least 20 mm is required around the entire surface (alternative: wall connection with connection profile and cover angle).
➲ See section 8.2

Figure 1



① neourban_tile
② sub-framework
③ concrete support slab
④ gravel bed
⑤ drainage pipe Ø 10 cm
⑥ consolidated soil
⑦ edge plates
⑧ soil/turf

4. Laying the Sub-Framework

The sub-framework must in principle be laid out flat with point supports (e.g. on concrete paving slabs, rubber pads, etc., see section 2). Direct laying in soil, on the gravel bed or on the concrete floor is not permitted. Longitudinal joints must have at least a 20 mm air gap and must be arranged with offset surfaces. Connections to all fixed borders must also have an air gap of at least 20 mm.

4.1 Laying as Floating Floor

To ensure expansion of the surface is free of resistance, the sub-framework must in principle be laid as a floating floor (no fixed fastening to the foundation).

4.2 Surface Drainage

Drainage of the tile surface takes place via the open click joints created by connecting the individual neourban_tiles together. A grade in the tile surface is useful but not absolutely necessary since the neourban_tiles bow up slightly in the middle, causing any precipitation water to flow into the click joints, which divert it onto the foundation. However, it is essential to ensure sufficient drainage of the foundation (for concrete floors, foundation with sealing layers, etc.).

➲ See also section 2

4.3 Laying Spacing

The concrete paving slabs, rubber pads, etc. must be laid at the specified distances based on the foundation (concrete, gravel bed, sheeting, etc.).

4.3.1 Laying Spacing X

The laying spacing X for the sub-framework corresponds to the coverage width of the neourban_tile:

X = exactly 443 mm (centre-to-centre or in-to-out measurement)

➲ See Figures 2 and 3

Exception: For the narrower edge tiles, the spacing for the two outermost sub-framework bars changes according to the width of the cut edge tiles.

➲ See section 5.3

4.3.2 Support Spacing Y

The support spacing Y for the sub-framework (clear distance between support points) is:

Y = max. 400 mm

➲ See Figures 2 and 3

4.3.3 Exception for X and Y

For high loads, e.g. carport floors, the laying spacing X and the support spacing Y for the sub-framework must be halved.

Figure 2

Laying the sub-framework on concrete paving slabs

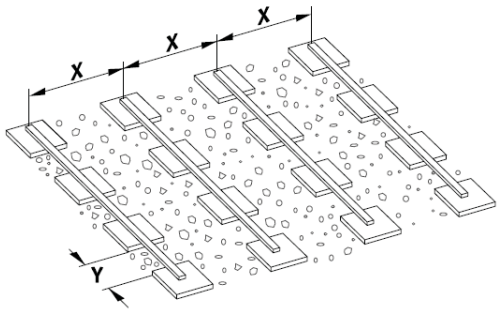
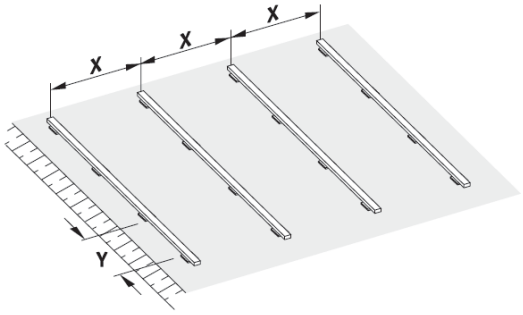


Figure 3

Laying the sub-framework on a concrete floor



5. Laying the Tiles on a Sub-Framework

5.1 General Information

Every neourban_tile must always lie with 2 outer edges against an essentially flat layer of sub-framework and must be screwed in through the clip strip with three screws at each location. Additional, visible screws must be used for corner tiles and cut edge tiles, if necessary. All screws **should only be tightened until the screw head rests against the clip strip!**

5.2 Laying Direction

The neourban_tiles must be laid in the order shown in Figure 4 since this produces a rigid sub-framework more quickly during laying, especially when also using additional stop bars.

Laying in any other order makes it impossible to create 3-point screw connections through the clip strips since the third clip strip would be covered by the previous row of tiles.

Offset laying of the neourban_tiles by half a tile width is generally only possible in the same direction as the sub-framework. ➲ See Figure 5

Figure 4

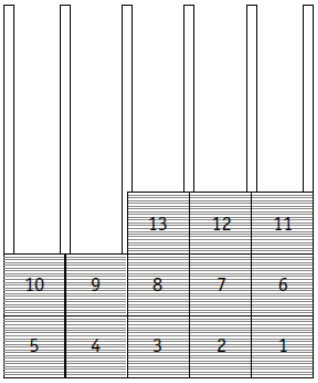
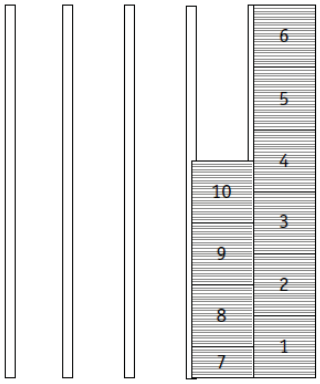


Figure 5



5.3 Laying the First Row of Tiles

Lay the first row of tiles along a guide bar that is oriented perpendicular to the sub-framework and screwed to it:

- allows correct alignment
- prevents sliding of the sub-framework

An additional bar temporarily screwed to the other end is also recommended for stabilising the sub-framework.

1. Align the tile ① and screw in visibly at the outer corner using a recessed head screw 4.0 x 60 mm, countersunk hole Ø 4 mm. Affix with hidden screws at 3 clip strips using 3 pan head screws 4.0 x 40 mm. ➲ See Figure 6

2. Place tile ② against tile ① at an angle, sliding the clip strips under the edge. Press down and affix with screws at the three clip strips, as before. Affix each additional tile (③, ④, ⑤,.... etc.) in the same way. ➲ See Figures 7 and 8

Figure 6

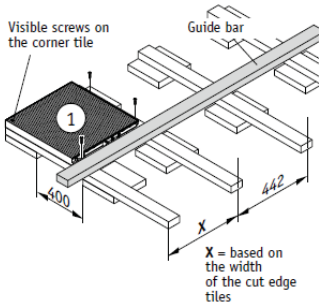


Figure 7

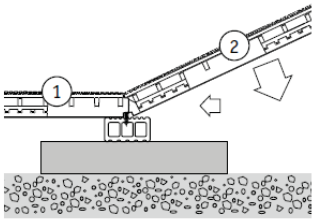
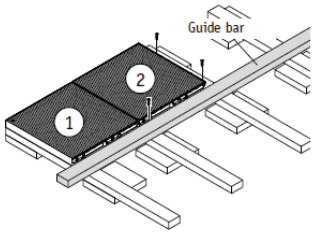


Figure 8



5.4 Laying Additional Tile Rows

Place tile ① of each subsequent row against tile ① of the previous row at an angle, press down and screw in.

Each additional tile (②, ③, ④,... etc.) must first be positioned at an angle to the previous tile of the same row so that it just fits onto the clip strip of the previous row when pressed down. ➲ See Figure 9

Then use a rubber mallet to tap the tile into the clip strips of the previous row and affix with screws. Pay careful attention to an even joint pattern. ➲ See Figure 10
This process is continued row by row.

Figure 9

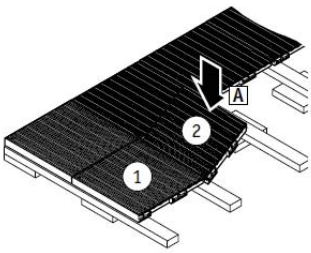
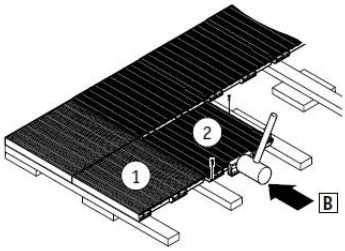


Figure 10



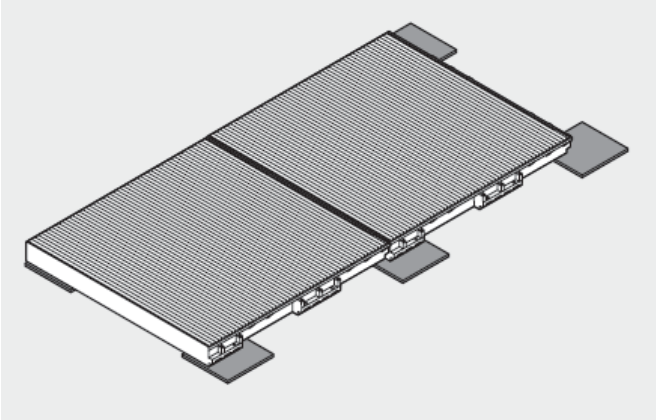
6. Alternative: Laying the Tiles Without a Sub-Framework

As an alternative to laying with a sub-framework, the tiles can be laid loosely without sub-framework on **absolutely level and solid** foundations (concrete, asphalt, tiles, etc.) or **concrete paving slabs laid sufficiently level**. In this case, the following conditions must be met:

- Bordering of the laid surface with an aluminium angle profile (e.g. 40 x 40 x 2 mm) provided by the customer. ➲ See section 8.1
- Placing **every corner** of a tile on a rubber pad of 100 x 100 mm to prevent slipping and to even out slightly uneven areas
- We recommend using a tile spacer while laying to prevent the tiles from sliding during the work.
- Ensure sufficient drainage of the foundation.

➲ See section 2
➲ See Figure 11

Figure 11

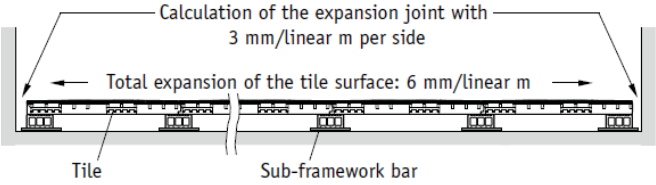


7. Expansion Joints

7.1 Expansion in General

Temperature and moisture fluctuations cause the neourban_tiles to expand and shrink in every direction. Temperature and weather-based expansion of the tiles on all sides of up to 6 mm/linear metre must therefore be accounted for during planning with corresponding expansion joints. Failure to leave expansion joints can result in stresses that could lead to warping or buckling of the flooring. ➲ See Figure 12

Figure 12



7.2 Expansion & edge joints on individual areas up to 8m

The size of the expansion joints against all fixed borders (e.g. building walls, shafts, garden walls, paving block borders, posts, rain pipes, etc.) must be 3 mm/linear metre on all sides, however no less than 20 mm.

➲ See example calculation

The expansion or edge joints can remain open or be covered with connection profiles and cover angles.

➲ See section 8

Example expansion joint calculations:

1. Terrace width or length = 4 m
   - Determined edge joint size: 4 m x 3 mm / m = 12 mm*
   - Selected edge joint size: **at least 20 mm!** (for back ventilation)

2. Terrace width or length = 8 m
   - Determined edge joint size: 8 m x 3 mm/m = 24 mm*

* Edge joint size per terrace surface edge

8. Edge and Joint Coverings

8.1 Angle Covers

Customer-provided aluminium angle profiles can be used to create borders for the tile surfaces. When laying the tiles loosely on concrete floors or concrete paving slabs without a sub-structure, the tile surface must always be surrounded by an aluminium angle profile with dimensions such as 40 x 40 x 2 mm.

The cover angle must be screwed to every neourban_tile edge with stainless steel recessed head screws 3.5 x 30.

An additional screw is required approximately 50 mm from the edge on both sides of corner tiles. An expansion joint of at least 5 mm must be maintained at longitudinal and mitre joints. The max. installation length of the aluminium angle profile may not exceed 2 m. ➲ See section 6

➲ See Figures 13 and 14

Figure 13

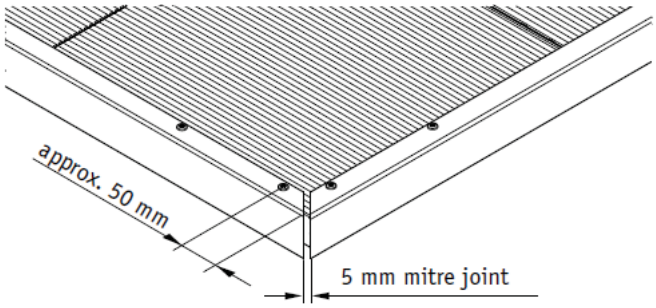
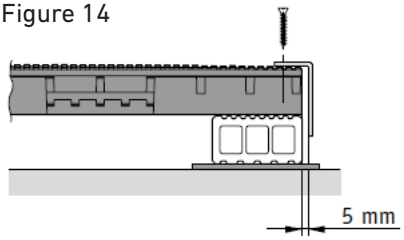


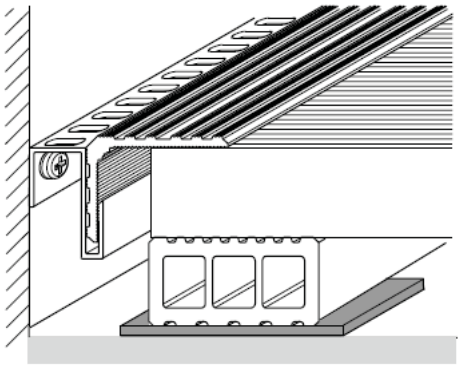
Figure 14



8.2 Wall Connection

For a clean wall connection, the connection profile can be used together with the cover angle 60 x 45 x 5 mm. This wall connection allows longitudinal expansion of the neourban_tiles while also covering joints. Ventilation of the sub-framework is ensured by the holes punched in the connection profile. ➲ See Figures 15 and 16

Figure 15



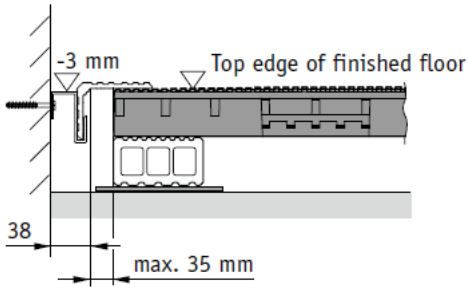
Fastening process:

1. After laying the sub-framework bars, the height of the neourban_tiles (top edge of finished floor) can be marked on the house wall. The connection profile should be installed 3 mm below this marking. The fastening materials should be selected by the customer based on the wall material.
   Important: The option of fastening to the existing house wall using screws must be checked before installation.

2. The distance to the wall to be maintained when laying the neourban_tiles is approx. 38 mm + a mm. 'a' is the calculated edge joint dimension. This wall connection permits an edge joint of max. 35 mm. ➲ See section 7

3. After laying of the tiles, the shorter side of the cover angle is clipped bit by bit into the end of the connection profile. If necessary, a lubricant (e.g. salad oil, cleanser, etc.) can be used to facilitate clipping in the cover angle.

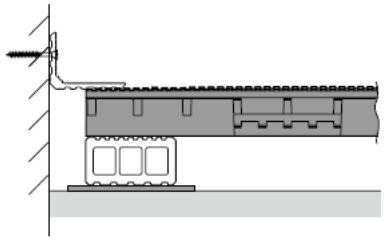
Figure 16



Alternative inner angle:

The cover angle can also be screwed directly to the house wall as an inner angle. It is necessary to ensure sufficient back ventilation for the sub-framework over the remaining edges of the floor area. ➲ See Figure 17

Figure 17



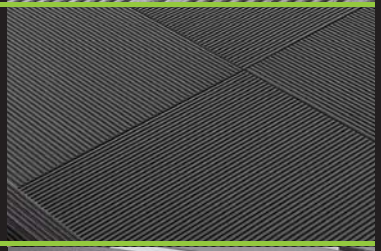
ultradesign composites offer a comprehensive range of innovative, composite building products, comprising of recycled industrial plastics and sustainably resourced wood fibres.

urbanedge_deck is available in two design profiles of urban edge groove or embossed wood grain, and has width options of 90mm, 143mm and 242mm, with four colour options: ash grey, bahama brown, sand and river bank.

urbanedge_deck

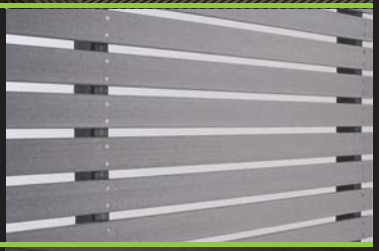
neourban_tile carries the urban groove design profile and is 442mm wide, with three colour options: ash grey, bahama brown, and terracotta.

neourban_tile



urbanedge_screen has a smooth design profile and is 60mm wide, with two colour options: ash grey and bahama brown.

urbanedge screen



urbanedge_cladding is available is available in two design profiles of structura (double sided texture option) or siding, and has up to four colour options.

urbanedge_cladding

urbantable_tops are available in 100+ decors ranging from modern design, rustic rural charm or timeless and classic aesthetics. Available in a of variety of sizes and shapes.

urban

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