

INSTALLATION INSTRUCTIONS FOR RUBBER PAVERS OUTDOOR FLOORING

IMPORTANT!

THE FOLLOWING PAGES ARE GUIDELINES ONLY.

PLEASE READ THIS MANUAL THOROUGHLY BEFORE INSTALLING BRAVA OUTDOOR RUBBER SURFACING PRODUCTS.

SECTION ONE- MATERIAL STORAGE & HANDLING

General packaging information:

All Brava Outdoor products are packaged on wooden pallets, covered with a plastic hood, and secured by steel strapping.

On receipt of merchandise:

The product in front of you has gone through several quality assurance checks . However, we recommend that you double check that your order is correct, that no damage occurred during transport, and for any other possible shortcomings. For your own protection, ensure that defective product is identified prior to the start of the installation.

Do not install product if there are any such shortcomings .

BRAVA OUTDOOR IS NOT RESPONSIBLE FOR INSTALLATION COSTS, AND WILL NOT BE LIABLE FOR MATERIAL OR LABOR IF DEFECTIVE PRODUCT IS INSTALLED

Storage:

During rubber pavers must be kept dry and must be stored above 50°F (10°C) in a dry, heated space .

Installation after short term storage:

At least 24 hours before starting the installation lay out all pavers on the sub-surface to allow them to acclimate. A paver laid in the morning hours at 32°F (0°C) would be a different size than a paver laid at 68°F (20°C) later in the day . Acclimation is complete when the products have reached their specified dimensions. Refer to the Weights and Measures chart at the back of these guidelines. Short term storage should be considered as two weeks or less.

Installation after prolonged storage:

During prolonged storage, the pavers in the lower portion of the stack will compress to a greater degree than those in the upper portion. This will show as thickness variations in the products taken from the top of the pallet as compared to those on the bottom. Product dimensions (length and width) may also be affected . A longer acclimation time will be required for product that has had a longer storage time . Exactly how long is very difficult to predict but can take upwards of 48- 72 hours. The product should be taken off the pallet and distributed throughout the installation area in small piles consisting of three or less pavers. Acclimation is complete when the products have reached their specified dimensions. (see the Weights & Measures chart at the back of these guidelines).

KEEP PAVERS CLEAR OF TOOLS AND CONSTRUCTION MATERIALS DURING ACCLIMATION TO PREVENT UNEVEN DISCOLORATION.

SECTION ONE CONTINUED- MATERIAL STORAGE & HANDLING

- It is important to keep a clean working surface at all times. Protect pavers from dust and dirt.
- Keep Brava Outdoor rubber surfacing dry, moisture will cause adhesion problems .
- Petroleum distillants (e.g. solvents) as well as liquid animal fats may cause the surface bonding to fail. Test results for other harmful chemicals and compounds are available on request.

SECTION TWO - TOOLS & ACCESSORIES

Tools and safety equipment required:

- Brava Outdoor Installation Guidelines
- Safety glasses
- Heavy duty utility knife and replacement blades (1" blade recommended)
- Rubber mallet
- Measuring tape
- Transit level and Straight edge.
- Chalk snap-line
- Carpenters square
- Perimeter border if required (e.g. 2"x4" treated lumber)
- Drainage Fabric such as Enkadrain® 3811 R by Bonar (www.bonar.com)
- Woven geotextile fabric such as Geotex 200 ST® by Propex Geosynthetics (www.geotextile.com/product)
- Duct tape for geotextile fabric only
- Pins for Interlocking Pavers - The interlocking pins are 2.5" (6.5cm) long and are made from black polyethylene. Each interlocking paver requires four (4) interlocking pins. They are included with every order, four per paver, at no charge.
- Reducer Strip -Size: ¾" (19mm), Available in black solid core x 12'-1-1/2" lengths.



Attach reducer strip to pavers with compatible, non-solvent based adhesive or caulking (e.g. Bull Dog Adhesive PL400).

SECTION THREE - BEFORE STARTING THE INSTALLATION

Thoroughly remove all dirt and debris from the surface . A clean smooth surface will help in achieving optimum installation results.

During storage, rubber pavers must be kept dry and stored above 50°F (10°C) in a dry, heated space. Temperature range for adhesive use: between 50°F (1c) and 104°F (40°C).

Refer to Section One regarding acclimation. Also note that if large areas are to be installed that will receive direct sunlight, care must be taken to ensure that proper gaps at perimeter are allowed for expansion.

It is NOT recommended that pavers be installed if ambient temperature is above 80°F (27°C), as this will result in larger gaps as the pavers cool.

SECTION FOUR - PREPARATION OF THE SUB-SURFACE

Ensure good drainage of the area by a well defined gradient of the surface and well placed drainage pipes in lower spots. Pavers should not be allowed to sit in pools of water before, during or after installation.

We recommend that Enkadrain® 3811R by Bonar (www.Bonar.com), be laid prior to the installation of the pavers. We then suggest that a woven geotextile fabric such as Geotex® 200ST by Propex Geosynthetics be installed on top of the Enkadrain® 3811 R and secured to the perimeter borders.

Concrete sub-surfaces:

New concrete surfaces must be thoroughly cured and free from hydrostatic pressure before rubber pavers are installed (a minimum of 28 days after pour). Consult adhesive specifications for allowable moisture tolerance .

If existing concrete is too rough, it can be leveled by sanding or applying a cement based leveling compound (patch), allowing a curing time as recommended by the patch manufacturer. (Follow manufacturer's installation guidelines).

Asphalt sub-surfaces:

This type of surface must be level and free of grease, oil, and other contaminants. Surface should be pressure washed to remove all loose materials and be thoroughly dry before commencing the installation. New asphalt must be cured for a minimum of 14 days. To minimize expansion issues, install a woven geotextile fabric such as **Geotex 200 ST® by Propex Geosynthetics** over the asphalt surface. Provide a minimum of 12" overlap of all joints and secure overlap with duct tape or equivalent. Secure geotextile fabric to the perimeter border with adhesive, rust proof nails or staples.

Compacted granular surface Compacted granular surfaces are defined as dirt or gravel base. Excavate the area to the depth of the thickness of the paver, plus a minimum of 4 inches. Level and compact the area with a medium to coarse crushed gravel (3/4" minus gravel range). Moisten and compact with a flat plate vibrator to 95% Modified Proctor. Depending on the irregularity of the resulting surface, use up to granular fines to make a smoother surface. For flat surfaces the rolling variance should be no more than 1/4" per 10 feet.

Install a woven geotextile fabric such as **Geotex 200 ST® by Propex Geosynthetics** over top of compacted, level sub-surface. Provide a minimum of 12" overlap at all joints and secure overlap with duct tape or equivalent. Secure geotextile fabric to the perimeter border with adhesive, rust proof nails or staples .

Be aware that even after proper compacting , over time this type of installation may be susceptible to ground settling

HEAVING OR SETTLING OF SOFT GROUND SUB SURFACE AS A RESULT OF FREEZE/THAW IS THE SOLE RESPONSIBILITY OF THE INSTALLER AND/OR OWNER.

SECTION FIVE - INSTALLATION OF RUBBER PAVERS

Layout

Brava Outdoor suggests that pavers be loose laid on the prepared surface prior to installing.

Brava Outdoor pavers may have minor color variation from paver to paver. This is a normal trait of products manufactured from recycled rubber. This color variation in no way affects the quality of the paver and can be minimized by placing these pavers in less visible areas.

Make sure the sub-surface is properly prepared (see Section IV, Preparation of the Sub-surface). Determine a starting point that best suits the area. For irregular site configurations, a good starting point is often the center. Other installations are best started in the corner along a straight edge.

If installing on a roof or deck it is important that the pavers be installed in such a way as to have the interlocking pins face two opposing walls. This will help to keep the pavers contained as they expand in the heat of the day. Do not align them where the pins are facing a wall on one side and an open edge on the other.

INTERLOCKING PAVERS

Installing Along Straight Edge

Place the first paver at a 90 degree angle at your designated starting point, either against a wall, existing border or chalk line. Align first row of pavers along the straight edge. Make sure that all interlocking holes are facing toward unfinished area. It is recommended to leave approx 1/8" - 3/16" space between each interlocking paver to allow for expansion during hot days.

Start second row with a "half paver", which is simply a full paver cut in half (see Measuring & Cutting section below). Continue installation in a staggered method, inserting the interlocking pins into the paver prior to laying. Repeat first and second row until installation is completed.

If installing a new perimeter border, it is best if you install two perpendicular edges before laying the pavers. This will reduce movement of the pavers during installation. After pavers are laid, install the last two remaining perimeter borders, making sure to leave room for expansion

OUTDOOR INSTALLATIONS OF RUBBER PAVERS WILL ALWAYS EXPAND AND CONTRACT WITH CHANGES IN TEMPERATURE AND HUMIDITY. THE DEGREE OF CHANGE WILL DEPEND ON GEOGRAPHIC LOCATION AND THE SIZE OF PROJECT. BOTH OF THESE FACTORS SHOULD BE CONSIDERED WHEN DETERMINING YOUR PERIMETER EXPANSION ALLOWANCE. A MINIMUM EXPANSION OF 0.5" PER 10 LINEAL FEET CAN BE EXPECTED IN MOST CIRCUMSTANCES.

SECTION FIVE CONTINUED- INSTALLATION OF RUBBER PAVERS

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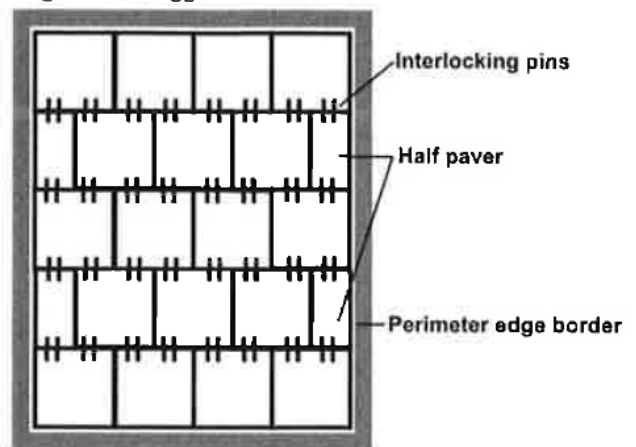
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THE CORRECT INSTALLATION OF BRAVA OUTDOOR INTERLOCKING RUBBER PAVERS IS A STAGGERED OR ASHLAR PATTERN. THIS WILL ENSURE PROPER ALIGNMENT, A TIGHTER FIT, AND REDUCTION OF VANDALISM

Figure A - Staggered Installation



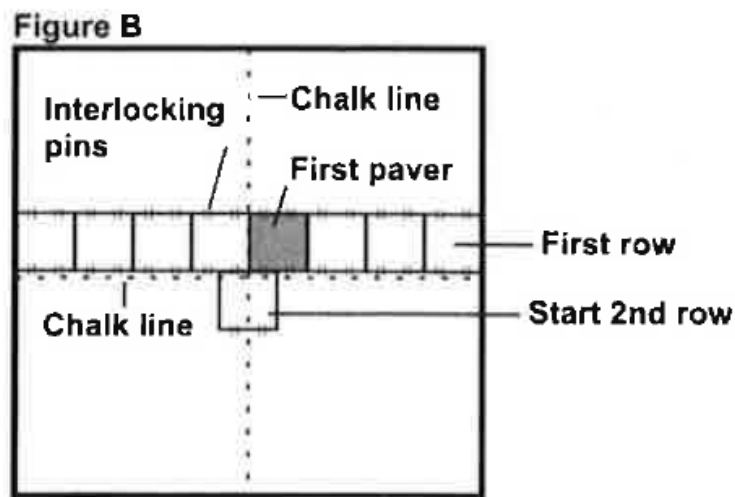
SECTION FIVE CONTINUED - INSTALLATION OF RUBBER PAVERS

Installing Irregular Site Configurations:

As reference for installation, measure the designated area and snap chalk lines both length & width at the center of the installation area. These reference lines will serve as a guide for laying the first row of pavers.

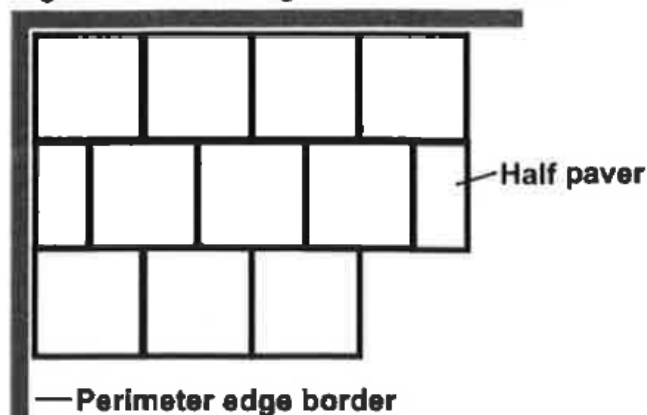
Place the first paver at a 90° right angle aligned with the perpendicular center of the chalk lines. Align first row of pavers along this chalk line making sure the interlocking holes are facing toward unfinished areas. Secure this first row of pavers by either spot gluing to sub-surface or creating a temporary border along one edge to hold the pavers in place.

Start second row at center of chalk line lining up with middle of paver above. Continue installation in a staggered method.



Refer to Section VI - Measuring & Cutting for cutting irregular shapes.

Figure C - Installing within new border



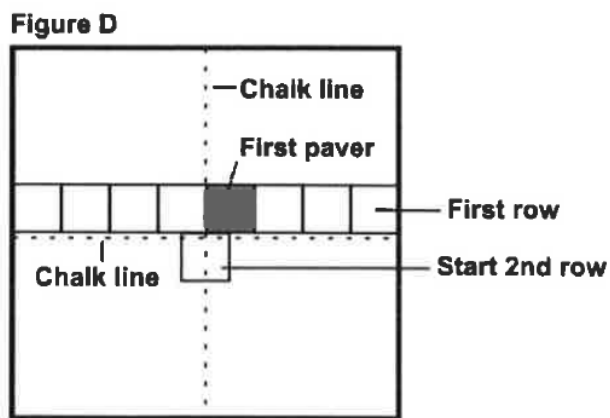
SECTION FIVE CONTINUED - INSTALLATION OF RUBBER PAVERS

Installing Irregular Site Configurations:

To create a starting point for installation, measure the designated area and snap chalk lines both length & width at the center of the installation area.

Place the first paver squarely aligned with the perpendicular center of the chalk lines. Align first row of pavers along this chalk line and adhere to sub-surface, following instructions on the previous page.

Start second row by placing the center of the first paver at center of chalk line, against the two pavers directly above (see diagram below). Continue installing in this staggered method.



Refer to Section VI - Measuring & Cutting for cutting irregular shapes.

SECTION SIX -MEASURING & CUTTING

Lay paver on a flat surface, hold the metal straight edge on the cut line, and cut with sharp utility knife. Keep scoring the cut until separated. Change or snap off blades frequently to ensure clean cuts. For odd angles, circular patterns, and to cut around structure mounts, a cardboard template is suggested

If a large amount of cutting is required, installers may consider using a jigsaw or reciprocating saw. If so, suggested blade is 12-14 teeth per inch, or a rubber cutting blade. Depending on thickness and length of cut, inserting a small wedge into start of cut will help to minimize any binding on the blade. Make sure that you measure carefully so that the paver will fit properly and does not leave gaps, resulting in the installation being out of alignment. Place cut edge facing perimeter border. If outside edge is exposed, place factory finished edge out.

Interlocking system:

When using a template to draw the cut marks on the paver, be sure the interlocking holes are facing in the right direction

SECTION SEVEN - GENERAL CLEANING & MAINTENANCE

ROUTINE MAINTENANCE EXTENDS LIFE AND ENHANCES APPEARANCE.

Initial Cleaning:

The pavers are coated with water-based mold release residue, a natural result of the manufacturing process. This will initially cause slight discoloration and slipperiness. For fast removal, apply a solution of neutral cleaner (e.g. Simple Green) and agitate with brush or mop, then rinse with water. Otherwise, let mold release wear off with time, which could take up to four weeks.

KEEP MOVEABLE FURNISHINGS, PLANTERS, ETC OFF NEWLY INSTALLED SURFACE FOR A MINIMUM OF 48 HOURS. THIS WILL ALLOW ALL PAVERS TO BE EXPOSED TO UV LIGHT AND ENSURE EVEN INITIAL COLOR ADJUSTMENT.

Ongoing Maintenance:

Sweeping and hosing off the surface are the most common methods of keeping the pavers clean. If surface is excessively dirty, apply a solution of neutral cleaner and water and agitate with a brush. Then rinse with garden hose. Do not use a pressure washer to clean pavers. Do not use solvents of any kind.

BRAVA OUTDOOR DOES NOT ASSUME ANY RESPONSIBILITY FOR DAMAGES CAUSED BY CHEMICAL ADDITIVES.

SECTION EIGHT -WEIGHTS & MEASURES

GENERAL PACKAGING INFORMATION

All Brava Outdoor products are packaged on wooden pallets, covered with a plastic hood, and secured by steel strapping.

Product Information - Rubber Pavers:

Thickness tolerance of ± 3.0 mm

Interlocking CushionWalk® Pavers:

24" x 24" = 4ft² per paver (61cm x 61cm = 0.37 m²)

Thickness:	Pavers per pallet:	Weight per Paver:	Weight of pallet:
¾" (19 mm)	140- 160	16-17.5 lbs (7.25- 8 kg)	75 lbs (34 kg)

Conversion Chart:

1 in	= 2.54cm
1 ft	= 30.5cm
39.4 in	= 1.00m
2.2 lbs	= 1.00kg

Weights and measures may change without notice. All measurements are nominal and subject to variation.

DISCLAIMER

The installation guidelines in this manual represent typical installation work procedures. Every site is different and Brava Outdoor does not claim to have covered all possible circumstances. Brava Outdoor does not warrant installation work and specifically disclaims liability for any direct or indirect personal injury, property damage, and other costs or losses resulting from installations or applications by third parties. Please see the Brava Outdoor Limited Warranty for the particulars of warranty coverage relating to Brava Outdoor's products.