



PAVER BACKER

August 2022

REINFORCEMENT AND PROTECTION

BISON PAVER BACKER

Ideal for use with Bison Pedestals, the Bison Paver Backer offers a simple and lightweight paver backing to enhance the impact resilience and provide additional support to paver surface materials for outdoor areas.

- Weather resistant galvanized steel backer
- Adhered to the desired surface pavers on site before installation
- Standard 24" x 24" modular size fits 595-603 x 595-603 mm pavers
- Recommended for use on Bison Pedestals 1/8" to 36" in height
- Please note, the Bison Paver Backer does not provide wind uplift resistance
- Meets ASTM E136 testing requirements as a non-combustible surface material



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Covered by one or more patents or pending patents.

Bison Paver Backers

- Paver Backers can be combined to accommodate larger format pavers. See the Bison Paver Backer Assembly and Installation Guide for recommended configurations.
- Prior to installation and during assembly, limit exposure to moisture, direct sunlight, and temperatures outside of 40°F to 100°F (5°C to 37°C).
- Damaged or cracked pavers and corresponding backers must be replaced immediately. In case of breakage, Bison recommends ordering extra pavers and backers at the time of purchase.
- Do not submerge Paver Backers in water. Accelerated corrosion can occur when used in tidal areas or in direct contact with highly chlorinated or salt water.



Model No.	Description	Dimensions (L x W x H)
PT-BACKER-2424		23.43" x 23.43" x 0.02" (595 x 595 x 0.6 mm) Fits 595-603 x 595-603 mm Pavers
PT-BACKER-2418		23.43" x 17.52" x 0.02" (595 x 445 x 0.6 mm) Fits 595-603 x 445-453 mm Pavers
PT-BACKER-2416	Paver Backer with Adhesive	23.43" x 15.55" x 0.02" (595 x 395 x 0.6 mm) Fits 595-603 x 395-403 mm Pavers
PT-BACKER-2412		23.43" x 11.61" x 0.02" (595 x 295 x 0.6 mm) Fits 595-603 x 295-303 mm Pavers
PT-BACKER-2020 (Special Order)		19.49" x 19.49" x 0.02" (495 x 495 x 0.6 mm) Fits 495-503 x 495-503 mm Pavers
PT-BACKER-1818 (Special Order)		17.52" x 17.52" x 0.02" (445 x 445 x 0.6 mm) Fits 445-453 x 445-453 mm Pavers

Testing

The Bison Paver Backer and 2CM Paver System meet or exceed these standards. (Not tested for use with other pavers or surface materials.) Note: Customer to verify acceptable uses for each project according to the presiding building code authority. All products to be installed per the most recent Bison Paver Backer Specifications and Details at the time of installation.

Test	Description	Results/Requirements
<i>Fire Resistance</i> UL TGFU R38623 ASTM E108* ASTM E136	Roofing Systems Under the Classification Program Roof Fire Classification for Raised-Deck Systems Behavior of Materials in a Vertical Tube Furnace at 750°C	Compliant over Class A, B, or C roof systems Class A Pass
<i>Gravity Loads</i> ASTM E661* ASTM E661* ASTM E2322*	Foot Traffic Concentrated Static Load 550 [lbs] Over a 3 [in] Diameter Disc Foot Traffic Concentrated Static Load 400 [lbs] Over a 3 [in] Diameter Disc Immediately Following Impact Load Cycles Up to 75 [ft-lb] Uniform Load Test for Panels/Pavers Supported by Pedestals	Proof Load: 553.1 lbs (250.88 kg) Deflection: 0.146 in (0.371 cm) Proof Load: 400.9 lbs (181.85 kg) Deflection: 0.108 in (0.274 cm) Allowable Load: 176 psf (859.31 kg/m ²) Deflection: L/360 Ultimate Load: 1,165 psf (5,688.03 kg/m ²) 388.3 psf (1,895.85 kg/m ²) FoS:3
<i>Bond Tensile Strength</i> ASTM C297* ASTM D1183* & ASTM C297*	Adhesive Testing Bond Strength of 3M 550 FC Adhesive Testing Bond Strength Post Accelerated Aging of 3M 550 FC	93 lbf (42.18 kg)/~1.25 in ² (8.06 cm ²) 74 psi (5.20 kg/cm ²) (True Adhesive Bond Area) 129 lbf (58.51 kg)/~1.25 in ² (8.06 cm ²) 103 psi (7.24 kg/cm ²) (True Adhesive Bond Area)
<i>Bond Shear Strength</i> ASTM D905* ASTM D1183* & ASTM D905*	Adhesive Testing Block Shear Strength of 3M 550 FC Adhesive Testing Block Shear Strength Post Accelerated Aging of 3M 550 FC	108 lbf (48.99 kg)/~1.00 in ² (6.45 cm ²) 108 psi (7.59 kg/cm ²) (True Adhesive Bond Area) 123 lbf (55.79 kg)/~1.00 in ² (6.45 cm ²) 123 psi (8.65 kg/cm ²) (True Adhesive Bond Area)

*Tested to meet ICC AC423 (Acceptance Criteria for Raised-Deck Systems Installed Over Roof Assemblies or Exterior Supporting Structures).

Bison 2CM & Paver Backer Care & Maintenance Recommendations

NOTE: For more information, please reference current Bison Specifications and Details, which can be found online at www.bisonip.com.

Cleaning: If desired, the Bison 2CM & Paver Backer system may be periodically cleaned. All spills should be cleaned as quickly as possible. Before handling stain removing chemicals, remember to use personal protective equipment such as safety glasses, respirators, and gloves as recommended per manufacturer safety data sheet (SDS). Prior to application of any cleaners, sweep thoroughly and mop with a clean damp mop using a PH-balanced mild household detergent such as diluted dish soap to gently remove dirt, debris, or light stains. Always check with the manufacturer of your roof membrane and drainage system to ensure that any cleaning solution or by-product will not compromise or damage the waterproofing or drainage systems, taking into consideration any and all environmental impact. Always refer to product manufacturer's SDS for more information on chemical components, safe handling practices, and disposal considerations for local, state, and federal laws. Bison recommends first testing on an inconspicuous area of 2CM paver before applying to the entire deck surface. Bison recommends using ZEP ALL-IN-1 Premium Pressure Wash concentrate (Dilution ratio 1:20 per manufacturer recommendation) for periodic cleaning and maintenance followed by thorough rinsing. Pressure washers may be used on 2CM pavers at a suggested maximum of 1200 PSI. Test an inconspicuous area first, and be careful to clean the entire deck to avoid lap marks. Avoid direct pressure stream on bonding adhesive. Rinse thoroughly with clean, clear water to remove any concentrates or solutions. Rinsing is a critical step in the maintenance procedure to prevent chemical deposit buildup. After rinsing, removing any standing water with a squeegee will help to prevent dirt or chemical deposits from drying on the surface.

Deep Cleaning: When necessary, scrub with cotton mop, cloth, sponge, or non-metallic brush. DO NOT use abrasive cleaners, brushes with hard or metal bristles, scouring pads, steel wool, or sandpaper. DO NOT use scouring powders, as these products contain abrasives that may scratch the surface of the paver. DO NOT use vinegar or any cleaners containing acids, alcohols, or strong alkaline agents. Products with high acid or ammonia content are not recommended. Acid washing is not recommended. Acids, like orange extract and vinegar (including any substance with a PH lower than 7) can damage the glazed surface of the paver, and alkaline solutions like ammonia or bleach (including any substance with a PH higher than 7) can discolor pavers and degrade adhesive bond. DO NOT use ammonia, alcohols, calcium hypochlorite, methylene chloride, potassium permanganate, liquid chlorine, or any other strong oxidizing agents. Commercial floor scrubbers and floor buffing machines are not recommended due to their potential to damage the deck system. After referencing the roofing and drainage systems' safety data sheets to ensure chemical and environmental stability of materials, follow the steps from the cleaning section above. The following cleaners are available for specific stain types:

- 30 Seconds Outdoor Cleaner (1:1), or Simple Green Concrete and Driveway Cleaner (1:20) for dirt, grease, grime, mold, mildew, and algae
- FILA CLEANALL (1:30), or FILA PS87 (1:5) for food, drink, dyes, oils, and organic stains
- FILA DETERDEK (1:5), or Simple Green Lime Scale Remover (1:5) for rust or lime scale stains

When deep cleaning pavers, try to focus on small areas to avoid contact with the underlying backer and adhesive, as they may be adversely affected by chemicals in these cleaners.

Sealing: Applying sealer or wax to 2CM Pavers is not recommended.

Water and Snow Removal: Always rinse pavers thoroughly after any application of ice-melt to avoid the buildup of salt crystals. After rinsing, squeegee pavers dry.

Visual Observation: Check for rocking pavers, and adjust or shim immediately if needed. Failure to do so could cause a tripping hazard. Periodically check spacer tabs and immediately replace broken tabs to limit deck movement. Make sure the edge restraint stays intact and structurally sound.