

TECHNICAL INFORMATION SHEET

SkyPaver™ Composite Pavers



<u>Item Description</u>	<u>Width / Length Options (all heights)</u>
Standard Pavers	
Paver Height: 1.98" (50.3 mm)	4" x 8" (101.6 x 203.2 mm)
Grid and Paver Height: 2.40" (61 mm)	
Resurfacing Pavers	
Paver Height: 1.23" (31.2 mm)	4" x 4" (101.6 x 101.6 mm)
Grid and Paver Height: 1.75" (44.5 mm)	8" x 8" (203.2 x 203.2 mm)

Product Information

Description:

The Firestone SkyPaver Composite Paver is engineered to serve as a functional, flat roof covering providing superior roof aesthetics, water drainage, and serviceability, while protecting the roof membrane below from roof traffic. SkyPaver Composite Pavers are composed of 95% recycled content, including rubber and plastic, and are 1/3 the weight of concrete pavers.

Method of Application:

1. Verify that all identified defects in the roof membrane have been repaired to the satisfaction of the roof membrane manufacturer.
2. All substrates must be clean, dry, smooth, and free of sharp edges, fins, loose or foreign materials, oil, grease, and other materials which may damage the roofing membrane.
3. Install the Firestone SkyDrain Sheet (**W56GARDR05**) to fit the area(s) to be covered by SkyPaver Composite Pavers. Panels should be butted together, with both the top and bottom geocomposite fabrics overlapped at all ends and edges.
4. Begin laying grids starting from one corner. Lay out at least 10 grids to allow for sufficient room to work. Offset seams of the grids with seams of the drainage mat for best results.
5. Grids can be cut to fit using a miter saw or jigsaw. If the ending grids are less than 4" (101.6 mm), cut off 4" (101.6 mm) or 8" (203.2 mm) of the grid before it, so the ending grids can be longer and will connect with overlapping pavers.
6. Bring stacks of pavers to the starting point. Empty pavers off the grid.
7. Lay pavers using chosen pattern (e.g. herringbone, basket weave, running bond), mixing different colors if desired. At least one paver must overlap the adjacent grid in all directions, connecting the grids together. Continue laying out grids and pavers until all full pavers are installed.
8. Maintain a 2" (51 mm) minimum distance between SkyPavers and roof protrusions (e.g. HVAC equipment, roof drains, structural members, roof curbs, etc.).
9. Field cutting of pavers: Use a miter saw or jigsaw. Install cut pavers last.
10. Adhering Pavers to grid: Desired in certain cases to mitigate wind uplift, around drains, or when pavers have been cut. Use a solvent-based advanced polymer adhesive or a water-based adhesive designed for landscaping, place a 1/4" (6.4 mm) bead across the top ribs of the grid, set the paver in place and press firmly, leaving the paver in place for the duration of the adhesive cure time. Cure time could vary and may take up to 72 hours or more to fully cure.

Precautions:

- SkyPaver systems should not be used as staging areas for construction materials or storage, as the pavers have a finished surface that could be damaged by such use.
- Scuffing of pavers may occur due to standard traffic or abrasive items being placed on the surface. In most cases the scuffs can be removed using the directions listed below. Scuffing is not covered by the product warranty.

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Precautions Continued:

- Pavers are not intended for use near, or under, in-ground fire pits. A minimum of four feet must be maintained between an open fire. Portable fire pits, charcoal and gas grills may be used on top of the pavers. The use of a fire proof mat is recommended to protect any potential scarring to the product.
- Color and finish will weather over time (see below). Weathering occurs as a function of environment, moisture, sunlight, heat, time and other variables, which vary by region/geography and typically takes anywhere from 3-24 months. Weathering is aesthetic and not a product performance issue covered under the warranty.



Plastic Sheen



Exposed Rubber



Color Change

- Weathering removes manufactured “sheen” from the pavers
- Looks more natural over time, less shine

- More rubber will become exposed
- Looks like the granite chips in traditional pavers

- The color will change slightly
- Reds get darker
- Greens/Browns get lighter
- Greys stay relatively the same

Storage:

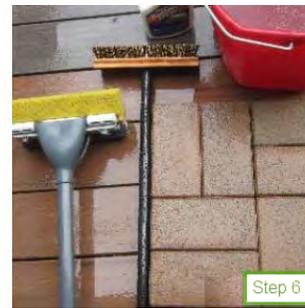
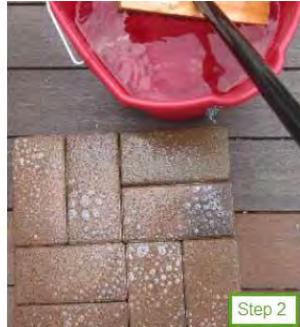
- Keep materials in original packaging until time of installation.
- Store materials in a clean, dry location.
- If stored outdoors, the product must be covered with a non-translucent material.

Clean-Up:

- Most surface spills and stains can be cleaned using household soft cleaners and warm water.
- Chemical spills (e.g. petroleum, paint) should be cleaned as soon as possible with an appropriate industrial cleaner and rinsed thoroughly with water. Chemical spills or stains left untreated over long periods of time may degrade the surface finish and integrity of the product and are not covered under warranty.
- Pavers can be cleaned using a pressure washer. Use a wide fan and keep tip far enough away from the surface to not score the product.
- Pretest cleaning products to ensure compatibility.
- Removing scuff marks from Firestone SkyPavers using Dawn Dish Soap or Chomp Gutter Cleaner and a stiff natural fiber brush. Some color variations may occur after cleaning of pavers. This color change is not covered under the warranty.
 1. Work in small controlled areas. Do not let cleaner dry or evaporate without thoroughly rinsing. Apply cleaner to pavers, modestly wetting surface.
 2. Let cleaner sit on product for 30 to 60 seconds prior to scrubbing.
 3. Thoroughly scrub pavers in both directions vertically and horizontally) with a wet, stiff, natural fiber brush.
 4. Rinse thoroughly from paver system and entire roof system below to drain. Dried cleaner may leave a white residue that would need to be cleaned again.
 5. Optional - Sponge dry the surface to remove all residual standing water.
 6. Allow to totally air dry. It may be necessary to spot treat any areas missed.

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LEED® Information:

Post-Consumer Recycled Content: Up to 95%
 Post Industrial Recycled Content: 0%
 Manufacturing Location: Scranton, PA
 *NOTE: LEED® is a registered trademark of the U.S. Green Building Council.

Applications

	Standard Pavers	Resurfacing Pavers
Flat Roofs	✓	✓
Amenity Spaces	✓	✓
Rooftop Patios	✓	
Rooftop Pathways	✓	✓
Rooftop Pool Areas	✓	
Rooftop High Traffic Zone	✓	
Rooftop Impact Zones: Ice, Hail	✓	

Packaging and Coverage Rate

	4" x 8" (8 per grid)	4" x 4" (16 per grid)	8" x 8" (4 per grid)
Standard Pavers:			
Grids Per Pallet	126	90	126
Pavers Per Pallet	1,008	1,440	504
Area Per Pallet	224 ft ²	160 ft ²	224 ft ²
Resurfacing Pavers:			
Grids Per Pallet	180	126	180
Pavers Per Pallet	1,440	2,016	720
Area Per Pallet	320 ft ²	224 ft ²	320 ft ²

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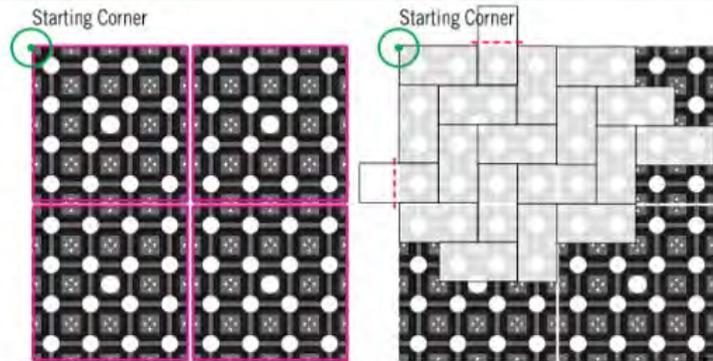
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Paver Patterns

Herringbone

Most popular and easiest to install pattern. Pavers will interlock grids in both directions.

- Lay the installation grids as illustrated at left.
- Start laying pavers at the starting corner.

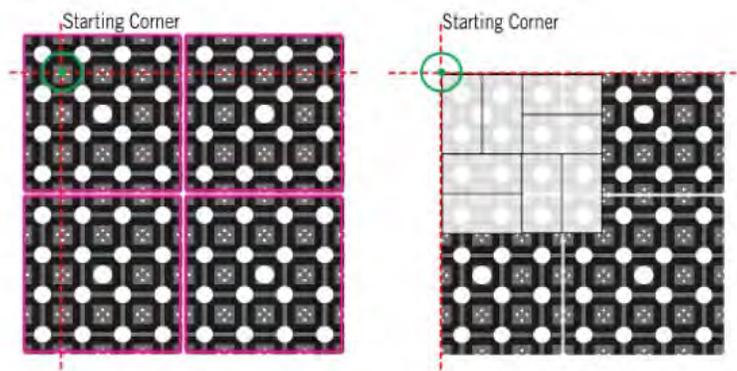


Basketweave

Simplest installation method for a basketweave pattern, but will require extra installation grids.

- The initial paver must be laid 4" (101.6 mm) down and 4" (101.6 mm) over from the top left corner of the grid. This will shift the pattern over and assure at least one paver will connect two grids in both directions

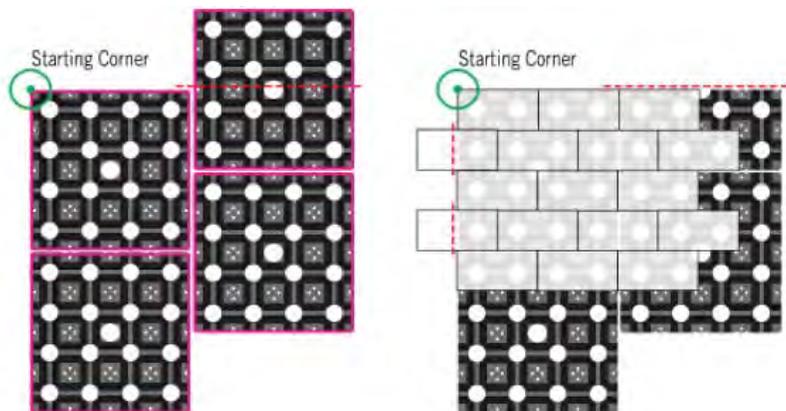
The leftover grid can either be trimmed off, or a 4" (101.6 mm) border can be used to fill in the extra space.



Running Bond

This pattern requires staggering the grids to assure the pavers will connect them in both directions.

- The starting paver can be laid in the top left corner, but the next column of grids must be staggered halfway down.
- Each half of the cut grid can be used.



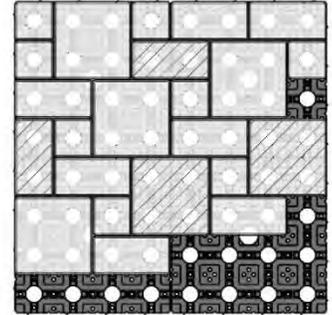
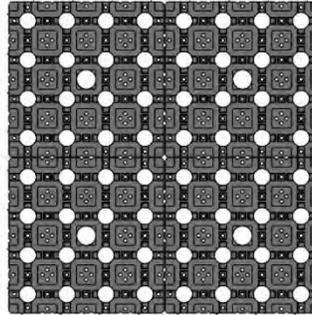
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8" x 8" (203.2 x 203.2 mm), 4" x 8" (101.6 x 203.2 mm), and 4" x 4" (101.6 x 101.6 mm) Paver Patterns

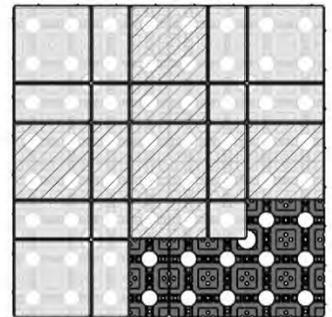
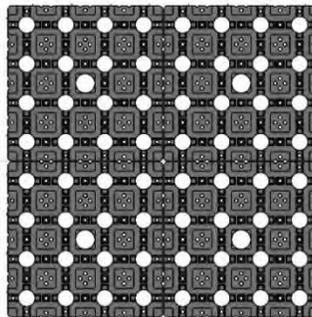
Plain Weave

- 8" x 8" – 57%
- 4" x 8" – 28.6%
- 4" x 4" – 14.3%
- Lay the installation grids as illustrated at right.
- Start laying pavers at the starting corner.
- Compatible with 4" and 8" soldier course borders



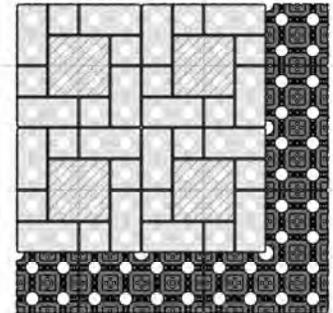
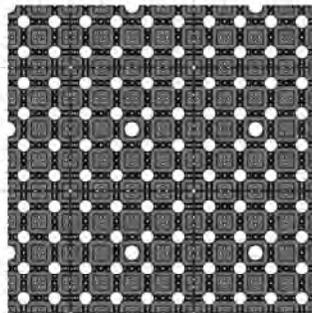
Block Lattice

- 8" x 8" – 44.4%
- 4" x 8" – 44.4%
- 4" x 4" – 11.1%
- Lay the installation grids as illustrated at right.
- Start laying pavers at the starting corner.
- Perimeter 8" x 8" pavers can be replaced with 4" x 8" pavers to create an 8" soldier course border.



Soldiered

- 8" x 8" – 25%
- 4" x 8" – 50%
- 4" x 4" – 25%
- Trim Grids as illustrated at right.
- All parts of quarter grids and half grids can be used.
- Lay the installation grids as illustrated at left.
- Start laying pavers at the starting corner.
- Adding 4" or 8" soldier course would eliminate the need to cut grids.



4" x 8" (101.6 x 203.2 mm) SkyPavers (8 Pavers Per Grid)

Color	Standard Pavers (1.98" (50.3 mm) H)	Resurfacing Pavers (1.23" (31.2 mm) H)
Ruby	W56GARPAVR2	W56GARPAVR
Chestnut	W56GARPAVB2	W56GARPAVB
Sage	W56GARPAVO2	W56GARPAVO
Ash	W56GARPAVW2	W56GARPAVW
Lavender	W56GARPAVV2	W56GARPAVLV

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4" x 4" (101.6 x 101.6 mm) SkyPavers (16 Pavers Per Grid)

<u>Color</u>	<u>Standard Pavers</u>	<u>Resurfacing Pavers</u>
Ruby	W56GARHPVR	W56GARPAVR44
Chestnut	W56GARHPVC	W56GARPAVB44
Sage	W56GARHPVS	W56GARPAVO44
Ash	W56GARHPVA	W56GARPAVV44
Lavender	W56GARPAVL8	N/A

8" x 8" (101.6 x 203.2 mm) SkyPavers (4 Pavers Per Grid)

<u>Color</u>	<u>Standard Pavers</u>	<u>Resurfacing Pavers</u>
Ruby	W56GARPAVR8	W56GARPAVR88
Chestnut	W56GARPAVC8	W56GARPAVB88
Sage	W56GARPAVS8	W56GARPAVO88
Ash	W56GARPAVA8	W56GARPAVV88
Lavender	W56GARPAVL8	N/A

Color Options

 <p><u>Ruby</u></p>	 <p><u>Chestnut</u></p>	 <p><u>Sage</u></p>
 <p><u>Ash</u></p>	 <p><u>Lavender</u></p>	<p>No Image</p>

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Typical Properties

Property	Test Method	Value	
		Standard Pavers	Resurfacing Pavers
Paver Size (H)		1.98" (50.3 mm)	1.23" (31.2 mm)
Paver Size (W x L)		4" x 4" (101.6 x 101.6 mm) - 4" x 8" (101.6 x 203.2 mm) - 8" x 8" (203.2 x 203.2 mm) (pavers per grid: 16, 8, 4)	
Grid Size		16" x 16" (406.4 x 406.4 mm)	
Combined Height		2.40" (61 mm)	1.75" (44.5 mm)
Combined Weight		15.8 to 16.1 lb (9.38 lb/ft ²)	11.67 lb (6.4 lb/ft ²)
Area Per Unit		1.78 ft ²	
Compressive Strength	ASTM C140-09 "Bound" Configuration"	>2000 psi	Not Tested
Flexural Strength	ASTM C140-09 Ultimate Flex. Strength: Flexural Modulus:	695 psi (SD 35 psi) 3842 psi (SD 380 psi)	Not Tested
Coefficient of Friction	ASTM C1028-07	Dry (static): 0.99 Wet (static): 0.67	
	ASTM D2394-05e1	Dry (static): 0.57 Wet (static): 0.94	Dry (sliding): 0.46 Wet (sliding): 0.86
Coefficient of Thermal Expansion			
Flame Spread	UL 94 Section 7 (material test) *	Horizontal Burning Rate: 2.0 in/min	
	ASTM E108-007 (tested at ½:12 slope) **	Spread of Flames: Class "C" Intermittent Flame: Class "C" Burning Brand: Class "C"	
Chemical Resistance	No visual discoloration after 30-day exposure to household bleach or muriatic acid. No known discoloration due to exposure to road/deicing salt (sodium chloride), engine oil, grease and common household cleaners.		
Cold Water Absorption	ASTM C67 Section 8 (material test)	Pass: <1% by mass Average Saturation Coefficient (after 1-hour boil): 0.05	
Freeze-Thaw Cycling	ASTM C67 Section 9 (material test)	Pass: No visual signs of cracking, warping or crazing (freeze-thaw cycles: 52 times over 75 days)	

NOTE:

* A chemical shall be considered a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second (6.0 in/min) along its major axis. Testing via UL 94 Section 7, a flame spread rate has been observed that is roughly one-third the limit recognized by the Code of Federal Regulations.

** Laboratory results only; not certified by U/L; test performed on equivalent product; slight variations in test results may result

Please contact the Technical Services Department at 1-800-428-4511 for further information.

This sheet is meant to highlight Firestone products and specifications and is subject to change without notice. Firestone takes responsibility for furnishing quality materials which meet published Firestone product specifications or other technical documents, subject to normal roof manufacturing tolerances. Neither Firestone nor its representatives practice architecture. Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Firestone accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Firestone representative is authorized to vary this disclaimer.