

The Search for Sustainable Pavers | Earth911.com

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When people hear the word “pavement,” asphalt and concrete are the first things that come to mind. But these aren’t the most attractive materials to use when paving a patio or walkway in your landscape. And they aren’t exactly the most eco-friendly materials, either. Earth911 found that many pavement companies have little interest in disclosing environmental information.

The answer to your sustainable paver problem may be that the greenest paver is the one you don’t have to buy. [Repurposed wood](#) or old [bricks](#) can be used to make unique and sustainable patios or walkways. But scavenging isn’t always an option.

Missing Data

Environmental impact is not even part of the conversation for most residential paver manufacturers. Even among the segment of the industry that manufactures “eco-pavers,” there is very little transparency. The information provided is usually limited to a single environmentally friendly attribute, such as permeability or recycled content. Many companies ignored emails requesting information, while one, Belgard, “declined the opportunity” to share information about its environmental practices.

As long as manufacturers remain silent on recyclability, material sourcing, and potentially toxic substances, it is impossible to accurately evaluate the relative merits of different paver types or of different manufacturers making similar products.

This buyers’ guide is meant to serve as a baseline for sustainable pavers — we’ll be pushing to get more information. As more consumers begin to demand sustainability information from manufacturers, more brands will begin to provide it. And as more information becomes available, we will be updating our guides. For now, the manufacturers in our comparison chart have been chosen either because they provide slightly more information than other brands, or simply as a representative of the type of paver they manufacture.

But, for now, none of the companies reviewed provides sufficient information to rank their environmental performance, even though some use theoretically planet-friendly materials. Please review the different types of paving materials in this article to understand the

basic questions you should ask to find a reliable option.

Comparison Criteria

Permeability

One of the main reasons people want pavement in the landscape is to eliminate mud, creating a dry, solid surface for driving, walking and outdoor furniture. But the water that runs off of paved surfaces does not percolate through the soil, filtering out pollutants and recharging groundwater supplies. Instead it rushes over the surface, causing erosion and flooding. [Stormwater management](#) saves money — it's also the biggest focus in eco paving products like [pervious concrete](#). Many municipalities offer tax incentives, utility fee reductions, and other incentives for permeable pavements.

Recycled Content and Recyclability

Purchasing recycled paper and recycling packaging are second nature to most of us, but when we embark on big home and landscape projects, we don't always examine the source of the materials we use. And when we expect them to last for decades, it's easy to forget that those materials will still need to be disposed of someday. That said, few manufacturers are transparent about the source of the materials they use to make their pavers. And whether a particular material is recyclable often depends more on your local programs than on recycling technology.

Comparison Chart

To view our printable sustainable pavers comparison chart, click the table below.

Earth911 Paver Comparison Chart

Brand	Material	Recycled Materials	Recyclability	Sourcing
Envirotile	rubber pavers	100%	unknown	unknown
Gardener's Supply Company	recycled rubber walkway	100%	depends on location	unknown
GraniteCrete	porous concrete	100%	yes	California
Invisible Structures	porous pavers	100%	depends on location	unknown
Recycled Granite	granite pavers	100%	reusable	postindustrial waste
Techo-Bloc	permeable and porous pavers	unknown	unknown	unknown
Timbertech (brand of Azek)	composite permeable pavers	95%	not really	postconsumer waste
TrueGrid	porous pavers	100%	depends on location	USA
Unilock	permeable and porous pavers	unknown	unknown	unknown



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Paver Types

Plastic Grids

Plastic is hardly the first thing that comes to mind as a suitable material for pavement — or an environmentally responsible building

material — but plastic grids are commonly used to make porous pavers. Porous pavers (also called open-cell pavers) are not pavers in the traditional sense. They form a cellular grid system that can support interstitial plant growth. The flexible nature of the material allows it to withstand foot traffic and even vehicles while protecting the roots of plants growing in the gaps.

[Truegrid](#) pavers use 100 percent post-consumer recycled HDPE to create a durable grid that can be filled with gravel or grass. Both the supply chain and manufacturing are domestic. HDPE is technically recyclable, but not all areas offer recycling of the material. [Invisible Structures](#) makes a similar product that comes in a flexible roll rather than rigid blocks.

Pervious/Porous Concrete

[Pervious concrete](#) is a cement-like mixture that replaces sand with air pockets, allowing water to pass through and drain into the underlying soil, preserving natural groundwater recharging processes. [GraniteCrete](#) is a combination of pre-consumer recycled aggregate, gypsum by-product, fine clays, and organic pigments. GraniteCrete is made entirely from recycled materials, and once removed can be pulverized and remixed into new GraniteCrete.

Resembling packed earth or concrete, the material allows water to pass through at over an inch per hour, and can be removed with a pickaxe. The product is strong enough for use in driveways, but prolonged freezing temperatures may damage it, so it is best for use in moderate climates. Currently, it is only available in California and Texas, but there are pervious concrete contractors operating regionally throughout the country.

Permeable Concrete Pavers

The terms pervious, permeable, and porous are often used [interchangeably](#) when describing pavers, but they are not the same. Permeable pavers are, ironically, impermeable. But the spaces between the pavers are filled with a particular aggregate rather than mortar. This allows rainwater to pass around the paver and drain through the gaps between blocks. Despite having wider gaps between the blocks than standard pavement, many of these pavers still meet ADA requirements. Available on the East Coast and in the Midwest, [Unilock](#) makes both permeable and porous pavers.

Recycled Tire Tiles

[Envirotile](#) is available through Home Depot. Made from 100 percent recycled tires, these pavers upcycle a [problem waste material](#). They can be laid on flat surfaces like balconies or rooftop patios, but can also be installed directly on the ground like regular pavers. Compared to concrete, Envirotiles are lightweight, easy to install, and more comfortable underfoot. However, they are not permeable, and since they are made from used tires, may contain harmful chemicals and so may not be suitable for use near vegetable gardens.

Recycled Rubber Mat

A Gardener's Supply Company exclusive product, this [recycled rubber walkway](#) comes in 2-by-8-foot strips. That makes it less versatile than Envirotile, but this rollable mat has one advantage — it's also permeable. Its 100 percent recycled rubber has a woven texture made to resemble bark mulch, which allows water to percolate through to the soil below. Like Envirotile, this mat is made from old tires. Product information does not include any reference to removal of or testing for toxins, so as with other tire-based products, this paving strip should probably not be used around food crops.

Permeable Plastic Pavers

Designed to resemble brick, [Timbertech](#) permeable pavers are a recycled plastic alternative to concrete that can withstand limited vehicular traffic. The pavers are made in Pennsylvania from up to 95 percent post-consumer recycled scrap tires and polypropylene plastics. The manufacturer can recycle the material back into their process to make new product. There does not appear to be a program in place for accepting post-consumer pavers, however, and standard recycling facilities cannot process the composite material.

Recycled Granite

If you want to use recycled stone but come up empty-handed at your local architectural salvage store, [Recycled Granite](#) (branches are concentrated along the Eastern Seaboard, with a few farther west), claims to be the only company in the U.S. that manufactures recycled stone pavers. They shape standardized tiles and pavers out of scrap material from the countertop fabrication industry.

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