Presto®

GEOSYSTEMS®

GLOBAL LEADER • GLOBAL PARTNER

creating

sustainable

environments®

GEOBLOCK®

porous pavement system

PRODUCT CATALOG

our commitment:

providing the highest quality products/solutions

the natural way to manage stormwater

GEOBLOCK®

MADE IN THE USA

low-impact way to help manage stormwater

Environmental regulations that control and limit stormwater runoff, reduce impervious surface, and increase green space have resulted in the growth of permeable pavements for traffic areas. Presto's GEOBLOCK® system offers numerous environmental advantages over hard surface pavements that result in cost savings and aesthetic benefits to property owners. Designed to handle the most demanding load support and turf protection requirements, the system supports a wide variety of loadings while allowing natural groundwater replenishment and reducing the need for detention or retention ponds. From pedestrian trails and walkways to emergency access lanes, to overflow parking, the GEOBLOCK® system provides high environmental benefit with low environmental impact.

environmental and economical benefits

HIGH PERMEABILITY

- Increases groundwater recharge and decreases surface runoff associated with stormwater discharge from paved areas.
- Minimizes use of valuable land space and costs associated with requirements for on-site stormwater ponds.

IMPROVES STORMWATER QUALITY

- Increases natural water infiltration and reduces non-point source pollution.

RECYCLED CONTENT

- Manufactured from up to 97% recycled polyethylene.

PROVIDES A COOLER SURFACE

- Reduces the heat island effect related to traditional hard pavements.

IMPROVES AESTHETICS

- Protects a sustainable vegetated surface or other attractive infill material.

EARN U.S. GREEN BUILDING LEED® CREDITS

The GEOBLOCK® system offers architects and designers achievable LEED® credits in the following categories:

- Reduced Site Disturbance
- Stormwater Management
- Reduced Heat Island Effect
- Recycled Content

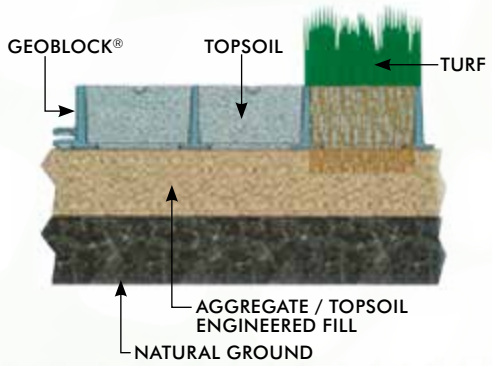
GEOBLOCK® *system components*

The GEOBLOCK® Porous Pavement System is comprised of the following components:

- GEOBLOCK® units
- Selected infill (topsoil/vegetation)
- Engineered base materials (if required)

The GEOBLOCK® system's unit strength and load distribution qualities allow a significant reduction in base requirements when compared to other porous pavement systems. Depending upon the subbase and loading, GEOBLOCK® units may be placed directly on the subgrade without additional base materials. For heavier loads or soft subbases, both the GEOBLOCK® units and engineered base work together to support the loading. The GEOBLOCK® system protects the topsoil from compaction and vegetative root zone from damaged by encapsulating them within the system's structure.

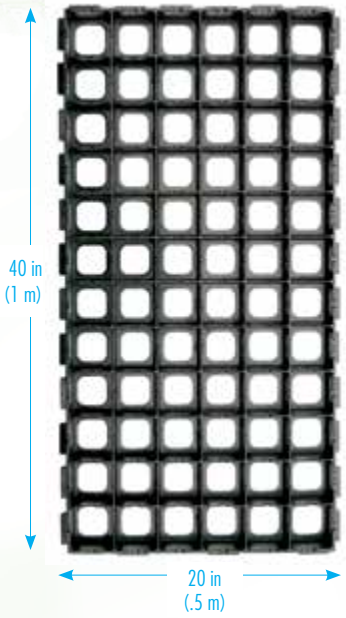
GEOBLOCK® SYSTEM CROSS SECTION:



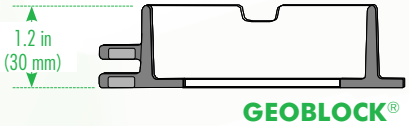
material specification

ITEM	GEOBLOCK®	GEOBLOCK®5150
Material	Up to 97% Recycled Polyethylene	
Color	Dark shades of gray to black	
Chemical Resistance	Superior	
Carbon Black for Ultraviolet Light Stabilization	1.5% - 2.0%	
Dimensions (width x length) (nominal)	20 in x 40 in (.5 m x 1 m)	
Nominal Unit Depth	1.2 in (30 mm)	2 in (50 mm)
Coverage Area	5.3 ft² (.5 m²)	
Cells per Unit	128	72
Cell Size	2.25 in x 2.25 in (57 mm x 57 mm)	3.1 in x 3.2 in (79 mm x 81 mm)
Top Open Area per Unit	88%	87%
Bottom Open Area per Unit	56%	41%
Interlocking Offset Shear Transfer Tabs	12 tabs per 40 inches (meter)	
Nominal Weight per Unit	4.7 lb (2.1 kg)	8.7 lb (4 kg)
Runoff Coefficient at 2.5 in/hr (63.5 mm) Rainfall	.15	
Units per Pallet	92	50

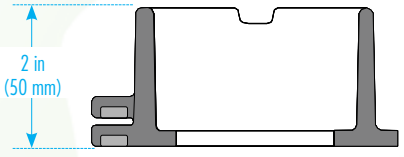
FULL SIZE GEOBLOCK® UNIT:



GEOBLOCK® CELL AND INTERLOCKING OFFSET TAB:



GEOBLOCK®



GEOBLOCK®5150

usage guideline

LOAD DESCRIPTION					DEPTH OF ENGINEERED BASE			
Description	Maximum Tire Pressure	Single Axle Loading	Tandem Axle Loading	Gross Vehicle Loading	GEOBLOCK® 1.2 in depth (30 mm)		GEOBLOCK®5150 2 in depth (50 mm)	
					CBR 2-4	CBR >4	CBR 2-4	CBR >4
Heavy Fire Truck Access & H-20 Loading (infrequent passes)	Typical 110 psi (758 kPa)	32 kip (145 kN)	48 kip (220 kN)	80,000 lb (36.3 tonne)	14 in (350 mm)	10 in (250 mm)	6 in (150 mm)	4 in (100 mm)
Light Fire Truck Access & H-15 loading (infrequent passes)	Typical 85 psi (586 kPa)	24 kip (110 kN)		60,000 lb (27.2 tonne)	10 in (250 mm)	6-10 in (150-250 mm)	4 in (100 mm)	2 in (50 mm)
Utility & Delivery Truck Access & H-10 loading (occasional passes)	Typical 60 psi (414 kPa)	16 kip (75 kN)		40,000 lb (18.1 tonne)	6-10 in (150-250 mm)	4-8 in (100-200 mm)	2 in (50 mm)	2 in (50 mm)
Car & Pick-up Truck Access (occasional passes)	Typical 45 psi (310 kPa)	4 kip (18 kN)		8,000 lb (3.6 tonne)	4-8 in (100–200 mm)	2-4 in (50–100 mm)	None	None
Trail Use[1] (loading for pedestrian, wheelchair, bicycle, motorcycle and ATV traffic)	Low	Low		Low	2-4 in (50-100 mm)	0-2 in (0-50 mm)	None	None

(1) If trail is non-vegetated, refer to the GEOBLOCK® design and construction document for more details.

NOTE: CBR refers to California Bearing Ratio. As the CBR increases, the depth of the engineered base recommendation decreases.

RECOMMENDED TOPSOIL:
Suitable topsoil should be a good quality, drainable soil and not be compacted within the GEOBLOCK® unit. The topsoil should be pulverized prior to filling the GEOBLOCK® cells and contain sufficient organic content to support vegetative growth. Topsoil such as sandy loam is recommended. Clay and clay loam material are not recommended.

RECOMMENDED ENGINEERED BASE:
A recommended 'engineered base' is a homogenous mixture consisting of 1) a clear-stone/crushed rock having an AASHTO # 5 or similar designation blended with 2) pulverized topsoil and 3) a void component generally containing air and/or water. This homogenous mixture will promote vegetative growth and provide required structural support.

The aggregate portion shall have a particle range from 0.375 to 1.0 in (9.5 to 25 mm) with a D_{50} of 0.5 in (13 mm). The percentage void-space of the aggregate portion when compacted shall be at least 30%. The pulverized topsoil portion shall equal 25% +/- of the total volume and be added and blended to produce a homogenous mixture prior to placement. Once placed, the mixture shall be compacted to 95% Standard Proctor Density.

GEOBLOCK® *features/advantages*

- Quality product manufactured to ISO 9001:2008 standards.
- Available in two styles – GEOBLOCK® and GEOBLOCK®5150 – to meet loading frequency and budget requirements.
- Large rigid surface area and strong interlocking connections maximizes load transfer and distribution of wheel loads to 80,000 lbs. and higher.
- Requires far less depth of base than rolled pavement systems, reducing overall installation costs.
- Effectively handles vehicle turning stresses and torsional loads.
- Deeper cells protect topsoil and vegetative root zone from damage caused by repeated loadings.
- Manufactured from up to 97% recycled plastic; offers credits with USGBC LEED® program.

typical applications

Access Roads: Maintenance, Utility, Fire and Emergency Vehicles

Parking Areas: Parks, Churches, Commercial Buildings, Sports Facilities, Residential

Trails: Pedestrian Greenways, Barrier-Free Access, Bicycles, Motorcycles and ATVs

Golf Courses: Edging, Pathways and Tee Areas

Residential: Driveways, Parking Areas, Campers and Boats

General: Event areas, Pedestrian Malls and Educational Campuses

In order to measure performance and evaluate the GEOBLOCK® system's capabilities, fire departments have performed rigorous tests on worst-case scenarios with exceptional results. Typical application areas include apartments, office and sports complexes, commercial/industrial buildings, shopping centers, and educational institutes.

easy installation

The GEOBLOCK® system is designed for easy installation, requiring less site preparation, less subgrade improvement, less excavation and less structural base than other porous pavement systems.

The GEOBLOCK® units are easily installed around obstructions and contours, and can be cut with ordinary hand or power tools. Irrigation systems can be easily integrated in the system. The units' large, easy-to-handle size minimizes the quantity of blocks required on a given job, reducing labor and installation costs.

The GEOBLOCK® system is an ideal paving solution in traffic areas where sustainable vegetation or permeable infill is desired.

To find out which GEOBLOCK® system is most suitable for your application, contact Presto GEOSYSTEMS® or their authorized distributor or representative.

PRESTO GEOSYSTEMS'® COMMITMENT — *To provide the highest quality products and solutions.*

Presto GEOSYSTEMS® is committed to helping you apply the best solution to your porous pavement requirements. Rely on the leaders in the industry when you need a solution that is right for your application. Contact Presto GEOSYSTEMS® or their network of knowledgeable distributors/representatives for assistance with your permeable pavement needs.

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