

GRAVEL-TEK™

The Most Economical Permeable Pavement System On The Market



Cell-Tek Geosynthetics is the premier manufacturer and distributor of Geocellular Confinement Systems (GCS) made of 100% recycled HDPE. Cellular Confinement has been used globally for decades to solve a wide array of environmental construction challenges. Whether it's load support, slope protection or earth retention, **Cell-Tek Geosynthetics** has the products to meet these demands.

GRAVEL-TEK™

Gravel-Tek Porous Paving is recognized by the Environmental Protection Agency as a Best Management Practice (BMP) for managing stormwater. Porous pavements have the ability to clean stormwater pollutants and safely capture engine oil leakage from cars and trucks. The benefits of Gravel-Tek porous paving are endless from reducing heat island effect to eliminating expensive stormwater structures.

APPLICATIONS:

Porous Pavements • Overflow Parking areas • Access Roads • Fire Access Lanes • Boat Ramps
Parking Lots • Golf Cart Paths • Roadside Shoulder Reinforcement • Driveways • Ports & Marinas
RV Parking • Trails & Pathways • Pavement Base Support • Permeable Paver Support

BENEFITS:

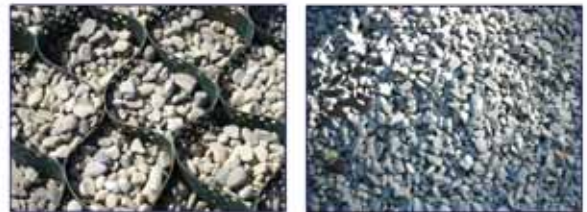
- Reduce Base Thickness up to 50%
- Reduce Subgrade Stress
- Reduce Installation Cost

ENVIRONMENTAL BENEFITS:

- Reduce Stormwater Runoff
- Natural Recharging of Groundwater
- Capture Airborne Pollutants
- Safely Distributes Car Oil Leakage
- Reduce Hot Surface Temperatures

STORMWATER STORAGE:

SG600 (6 inch cell depth) infilled with #57 stone with a 1" wearing layer can provide 2.8" of rainwater storage.



INFILL OPTIONS:

Open Aggregates, Decorative Stone, Brick Chips, Glass Aggregates, Bonded Aggregates



EARN LEED BUILDING CREDITS



Reduced Site Disturbance
Heat Island Effect
Recycled Material Content
Stormwater Management

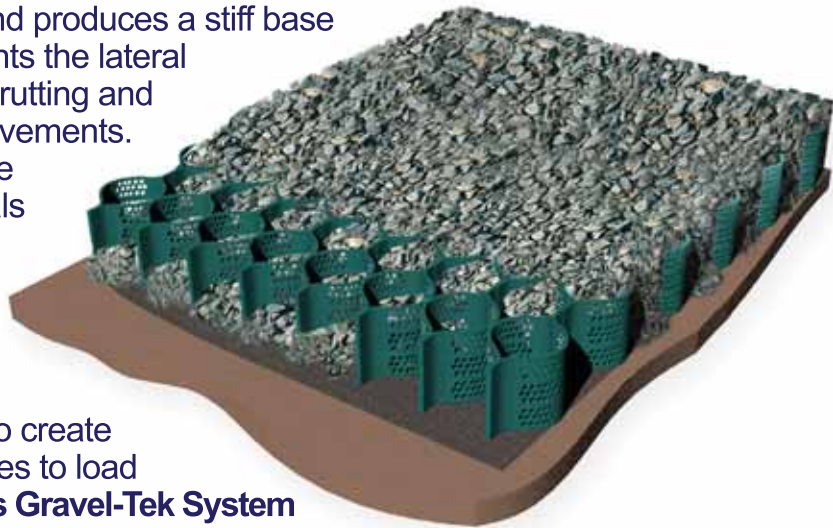


The All-In-One Porous Pavement Solution

Gravel-Tek Porous Paving System is the combination of using an open-graded aggregate infill material with **Cell-Tek's Geocellular Confinement System**. The system creates a semi-rigid aggregate mat which can support extreme loads without the need for additional base support. Geocellular Confinement prevents rutting and lateral movement of infill materials and can reduce base material thickness up to 50% and subgrade stresses by 30%. The **Gravel-Tek** system is an economical porous pavement solution which reduces the harmful effects of stormwater runoff.

LOAD SUPPORT:

Geocellular Confinement takes infill materials and produces a stiff base by creating a semi-rigid slab. The system prevents the lateral displacement of infill materials which eliminates rutting and washboarding usually associated with gravel pavements. The system allows for a reduction in overall base thickness, as well as enabling subgrade materials to withstand more than 10 times the number of cyclic load applications, without the appearance of deflection when compared to unconfined aggregates. GCS allows for the use of lower quality infill materials in situations where quality aggregates are not readily available and helps to create pavements on soft soil subgrades. When it comes to load support in porous paving applications, **Cell-Tek's Gravel-Tek System** delivers the competitive advantage.



GRAVEL-TEK		LOAD SUPPORT GUIDELINES			
PRODUCT	SG 200	SG 300	SG 400	SG 600	
TYPE OF TRAFFIC	Pedestrian & Small Cars	Cars & Pickup Trucks	Maintenance Trucks	Heavy Trucks & Fire Access	
LOAD DETAILS	5000 lb. (2.5 Tonne)	8000 lb. Axle Loads: 18kN	H10 Loading 40,000 lb. Axle Loads: 75kN	H20 Loading 80,000 lb. Axle Loads: 145kN	
SUBGRADE CBR	>3%	>3%	>3%	>3%	
SURFACE WEAR LAYER (overfill)	2"	2"	2"	2"	
TOTAL SYSTEM THICKNESS	4"	5"	6"	8"	
GEOTEXTILE (Filtration & Separation)	YES Nonwoven	YES Nonwoven	YES Nonwoven	YES Nonwoven	
EQUIVALENCY TO UNCONFINED GRAVEL	8" - 10"	12" - 14"	16" - 20"	24" - 30"	
WATER STORAGE	1.6"	2"	2.4"	3.2"	

For CBR <3% additional base support may be required or increase to next cell depth.
Example: If the design calls for a 3" cell depth and the CBR is less than 3%, use a 4" cell depth.

EDGING OPTIONS:

- Concrete Curbing
- Precast Curbing
- Paver Edging
- Timber Edging
- Metal Edging
- Natural Stone



Checklist of Benefits	GRAVEL-TEK [®] System	Plastic Cup System
ALL-IN-ONE SYSTEM	✓	—
LOAD BEARING STRENGTH WITHIN SYSTEM	✓	—
CAN BE INSTALLED OVER SOFT SOILS	✓	—
REDUCES EXCAVATION REQUIREMENTS	✓	—
CAN BE USED WITH SLOPES GREATER THAN 8%	✓	—
NO ADDITIONAL BASE SYSTEMS REQUIRED	✓	—
HIGH VOLUME PACKAGING (over 6000 sft. per pallet - SG200)	✓	—
REDUCES INSTALLATION TIME	✓	—
ALLOWS USE OF LOWER QUALITY INFILL	✓	—
EASY TO HANDLE IN COLD WEATHER CONDITIONS	✓	—
LESS LIKELY FOR DISTURBANCE BY SNOW PLOWING	✓	—
INCREASED WATER STORAGE WITHIN SYSTEM	✓	—
ECONOMICAL SYSTEM	✓	—

Cost Analysis on a 2500 Square Foot Residential Driveway Using SG300[®]

	GRAVEL-TEK [®] System	Plastic Cup System
Total Excavation Depth	5"	12"
Total Site Disturbance (Tonnage)	85 Tons	205 Tons
Total Infill Materials (Aggregate / Gravel Tons)	85 Tons	205 Tons
Estimated Gravel Cost @ \$20.00 per Ton	\$1700.00	\$4100.00
Estimated Product Cost per SF	\$0.80-\$1.20	\$2.50-\$2.85
Estimated Labor Cost per SF	\$1.50 SF	\$2.75 SF
Total Estimated Installation Cost Per SF	\$3.38 SF	\$7.24 SF

Prices are approximations only and exclude overhead and other expenses

