



**Jeevan**  
Ecotex  
Sustainable Weaves

**EcoCell**

EcoCell is a light, strong three-dimensional honeycombl like expandable cellular structure made from ultrasonically-welded High Density Polyethylene (HDPE) strips. EcoCell sections are fastened together, placed directly on the subsoil surface, propped open and filled with compact non-cohesive soils, sands or recycled materials which are confined within the cellular walls.

EcoCells significantly improve the bearing capacity of soft soils and is being used extensively in ground improvement. EcoCell is user friendly as it is lightweight and supplied flat in panel form which can be expanded onsite to create the honeycomb structure for infilling. It has proved to be an innovative soil stabilization and road reinforcement technology for civil engineering and infrastructure.



## Applications

EcoCell is often recommended for conditions having ground water close to the surface. EcoCells have been used for

Types of Application	Required EcoCell Functions
Steep Slope Surfaces, mountainous areas	Protection, Stabilization
Hydraulic Structures, Industrial equipment Protective linings of Channels	Stabilization, Reinforcement
Railway Embankment	Load support capacity improvement
Earth Retention (Multi-layered earth-retaining and water-retaining gravity structures) Used for steep vertical mechanically stabilized earth structures	Stabilization, Reinforcement
Agriculture	Stabilization, Reinforcement
Civil engineering Pavement load support Load distribution system	Stabilization, Reinforcement
Weak sub grade soils	Static & dynamic load support

# Functions

From construction to agriculture and the development of infrastructure, the use of EcoCells have proven to reduce the strain on natural resources to a great extent. Today, EcoCells are being widely used all over the world as they provide soil stabilization and reinforcement.



## Stabilization

EcoCells reduce lateral movement of soil particles while vertically loading on the contained infill which increases stability in weak or unsteady soil, especially on the slopes.



## Reinforcement

EcoCells improve load distribution and reinforce the weak sub-grade or subsoil and help to strengthen the soil surface and give the structure a longer life.



## Protection

EcoCells have high elastic stiffness and tensile strength. It provides a protective mattress effect with weight distribution, leading to less rutting in the surface materials above.

## Benefits



### Durability

EcoCells are invaluable for civil constructions as they are highly durable. They hold the soil and at the same time provide a flexible base while acting as a load distribution system, preventing cracks in pavements and roads.



### Environment Friendly

EcoCells are environment-friendly as they can be filled with anything local, from soil to gravel without needing transportation from elsewhere, thus lowering carbon footprints and saving money too.



### Cost Saving

EcoCells do not need costly filling materials and are as effective with local infill materials. Projects are thus completed faster with local, readily available materials, saving time and money.





## About Us

Jeevan Ecotex is a leading manufacturer of technical textile with state-of-the-art manufacturing facilities at multiple locations. It is an ISO 9001: 2015 certified company offering customised solutions.

## Why Jeevan Ecotex

We are uniquely placed as the only major geosynthetics player with in-house installation capabilities and our own manufacturing unit. Other advantages are –

- ✔ Strong brand association with reputed clients
- ✔ Continuous online monitoring of production
- ✔ Traceability with no human errors
- ✔ Products customised as per requirements
- ✔ Cost friendly & environment friendly manufacturing methods

Jeevan Ecotex Private Limited

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