

Geocell

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Geocell Latest News

CSIR-Central Road Research Institute (CSIR-CRRI) and BPCL have been recognized by the India Book of Records and Asia Book of Records for establishing the record titled “First Roadblock Section Constructed Using Technical Textile Geocell Made from End-of-Life Plastic.”

About Geocell

- It is a **three-dimensional cellular confinement system** used in **geotechnical engineering** to improve soil stability and load-bearing capacity.
- It consists of a **network of interconnected honeycomb-like cells** made from geosynthetic materials such as high-density polyethylene (HDPE) or polyester.
- These cells are expanded on site to form a mattress-like layer and are filled with infill materials such as **soil, sand, aggregate, or clay**.
- Once filled and compacted, the **geocell layer integrates** with the underlying soil to create a **stable, reinforced structure**.

Applications of Geocell

- **Pavement Load Support:** By reinforcing the soil in the subgrade-based interface or within the base course.
- **Steep Soil Slope and Channel Protection:** Three-dimensional lateral confinement of Geocell along with anchoring techniques ensures the **long-term stability of slopes** using vegetated topsoil, aggregate or concrete surfacing.
- **Earth Retention:** These can be used for **constructing steep vertical mechanically** stabilized earth structures.

Source: PIB

Source: <https://vajiramandravi.com/current-affairs/geocell/>

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