CCI GEOCELL

HDPE GEOSYNTHETIC MATERIAL

PRODUCT DESCRIPTION:

CCI GEOCELL is a geosynthetic product widely used in civil engineering, environmental, and landscape applications. These three-dimensional, honeycomb-like structures are made from high-density polyethylene (HDPE) or other polymeric materials and provide robust and flexible support for soil stabilization, erosion control, and load distribution.

PROPERTIES:

1. It has small weight, wearing resistance, stable chemical performance.
2. Anti-Aging Resistance
3. Acid and Alkali Resistance
4. It has high lateral limit, slipping and deformation resistance, improves bearing capacity of road bed and disperses load function effectively.
5. The size of geotechnical partition room such as height and welding interval can be changed to meet different project needs.
6. II has flexible extension, small transportation volume, convenient connection and quick construction speed.

APPLICATION:

1. **Road Construction**:
   - **Base Stabilization**: Geocells can reinforce the base layers of roads, reducing the required thickness of aggregate layers and improving load distribution.
   - **Paved and Unpaved Roads**: They help stabilize both paved and unpaved roads, increasing their durability and lifespan.
2. **Slope Protection**:
   - **Erosion Control**: Geocells stabilize slopes by confining the soil, preventing erosion and landslides. They are often used on embankments and cut slopes.
   - **Vegetation Support**: They can be filled with soil and vegetation to promote plant growth, further enhancing slope stability and reducing erosion.
3. **Retaining Walls**:
   - **Gravity Retaining Walls**: Geocells can be used to construct retaining walls that support soil laterally, effectively managing earth pressures.
   - **Reinforced Slopes**: They can also be used to reinforce slopes and create tiered retaining walls for landscaping purposes.
4. **Load Support**:
   - **Foundations**: Geocells improve the load-bearing capacity of weak soils, making them suitable for constructing foundations for buildings, railways, and pipelines.
   - **Heavy Load Areas**: They are used in areas subjected to heavy loads, such as airport runways, parking lots, and industrial yards.
5. **Channel and Shoreline Protection**:
   - **Riverbanks and Shorelines**: Geocells protect riverbanks, canals, and shorelines from erosion caused by water flow and wave action.
   - **Drainage Channels**: They stabilize drainage channels and ditches, preventing erosion and maintaining the integrity of the water conveyance systems.
6. **Landscaping and Green Roofs**:
   - **Terracing and Planters**: Geocells can be used to create terraces and planters in landscaping projects.
   - **Green Roofs**: They provide structural support and soil confinement for green roof installations, promoting vegetation growth on rooftops.

7. **Mining and Landfills**:
    - **Waste Containment**: Geocells are used in the construction of landfill caps and liners, helping to contain waste materials.
    - **Mine Tailings**: They stabilize mine tailings and waste heaps, reducing environmental impact and improving safety.

PACKAGING:

Can be customized

TECHNICAL PARAMETERS:

Item	mm	mm	Plate Thickness (mm)		Tensile Yield Strength (MPa)	Peeling Strength (N)
			Glossy	Embossed		
TGLG 50-400	50	400	1-11	1.4-1.5	20	500
TGLG 100-400	100	400	1-11	1.4-1.5	20	1000
TGLG 150-400	150	400	1-11	1.4-1.5	20	1500
TGLG 200=400	200	400	1-11	1.4-1.5	20	2000
TGLG 75-330	75	330	1-11	1.4-1.5	20	750
TGLG 100-330	100	330	1-11	1.4-1.5	20	1000
TGLG 150-330	150	330	1-11	1.4-1.5	20	1500

Item	Polypropylene Material	Polyethylene Material
Environmental Stress Cracking F50 (h)	-	≥800
Low Temperature Embrittlement Temperature (°C)	≤-23	≤-50
Vicat Softening Temperature (°C)	≥142	≥112
Oxidation Induction Time (min)	≥20	≥20

Cell Height (H/mm)		Cell Thickness (T/mm)		Welding Distance (A/mm)	
Nominal Value	Deviation	Nominal Value	Deviation	Nominal Value	Deviation
H≤100	+1	≥1.1	±15	300≤A≤800	±15
100<H≤200	+2				

STORAGE:

- Choose a storage location that is dry, well-drained, and level to prevent water accumulation and deformation of the geocells.
- Use appropriate equipment for handling geocells to avoid damage. This might include forklifts or cranes with non-abrasive lifting straps.
- Stack geocell pallets to a safe height to prevent toppling and excessive pressure on the lower layers.
- Ensure proper ventilation to prevent moisture buildup and potential mold.
- Conduct regular inspections for signs of damage or degradation, such as tears, discoloration, or brittleness.
- Clearly label stored geocells with relevant information, such as batch numbers, manufacturing dates, and installation guidelines.

CCI Chemicals
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