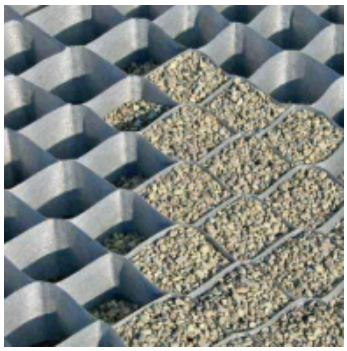
TME Grup Makina İnşaat San. Tic. Ltd. Şti.

9001:2015 14001:2015

CONFORMITY OF PRODUCT

TME GeoTech HDPE Geocell



Purpose of Usage

TME GeoTech HDPE Geocell is widely used for soil stabilization, slope protection, load support, erosion control, and retaining wall reinforcement in civil engineering projects. Typical applications include road and railway embankments, riverbanks, channels, green roofs, and landscaping projects. It is particularly effective in areas requiring heavy load distribution and erosion prevention.

Application Locations

TME GeoTech HDPE Geocell is manufactured from high-density polyethylene (HDPE), providing high tensile strength, flexibility, and chemical resistance. Its three-dimensional honeycomb structure confines and stabilizes infill materials such as soil, sand, or gravel. The geocell can be expanded and installed easily on-site, adapting to uneven terrain and complex slopes. The material is UV-stabilized and resistant to extreme weather, ensuring long-term durability.

Material Properties	Unit					Test Method
Cell Depth	mm	75	100	150	200	
Polymer Density	g/cm3	0.935-0.965				ASTM D 1505
Enviromental Stress Crack Resistance	Hours	> 400				ASTM D 5397
Enviromental Stress Crack Resistance	Hours	6000				ASTM D 1693
Carbon Black Content	%	> 1.5				ASTM D 1603
Nominal Sheet Thickness Before Texturing	mm	1.27 -5%,+10%				ASTM D 5199
Nominal Sheet Thickness After Texturing	mm	1.52-5%,+10%				ASTM D 5199
Strip Puncture Resistance	N	450				ASTM D 4833
Seam Peel Strength	N	1065	1420	2130	2840	EN ISO13426-1B
Seam Efficiency	%	100				GRI-GS13
Nominal Expanded Cell Size (width x length)	mm	320x287,475x508 etc				
Nominal Expanded Panel Size (width x length)	m	2.56x8.35, 4.5x5.0, 6.5x4.5, 6.1x2.44				

Product Features

The main advantage of TME GeoTech HDPE Geocell is its ability to improve soil bearing capacity while preventing erosion. It reduces the need for thick layers of granular materials, saving construction costs and time. The flexible and lightweight design allows easy transportation and installation, even in challenging terrains. Additionally, it enhances slope stability, distributes loads evenly, and provides long-lasting protection against environmental stresses.

TME-1124