TENAX 3D GRID

THE FIRST 3DIMENSIONAL GEOGRID

TENAX®

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TENAX®

TENAX 3D GRID

Real 3D Real Benefits

RISE FROM FLATNESS

Improved performance to road stabilization

- Unique rib profile providing excellent aperture stability
- Lateral confinement leading to better soil interlocking
- Specific aperture for different soil aggregate size

TENAX 3D GRID T

US PROVISIONAL PATENT APPLICATION N. 62/804,274

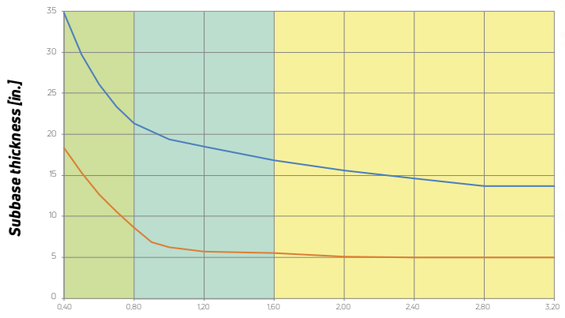
ITALIAN UTILITY MODEL APPLICATION N. 202019000000495

SIZE APERTURE SUITABLE FOR MEDIUM - SMALL AGGREGATE

VERTICAL EDGE WITH «T» PROFILE FOR BETTER LATERAL CONFINEMENT

«T» BEAM SHAPE GUARANTEES: HIGH TRANSVERSAL STIFFNESS, EXCELLENT APERTURE STABILITY (> 1.00 N mm/deg)

3" rut,
20 kips, 1200 passes, aggregate subbase CBR 20

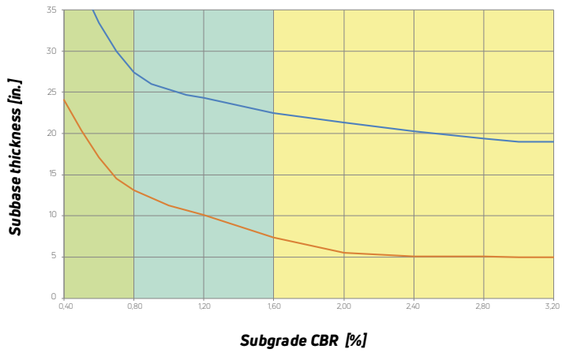


UNREINFORCED

3D GRID T

Subgrade consistency
- Soft
- Medium
- Stiff

1.5" rut,
20 kips, 1200 passes, aggregate subbase CBR 20



UNREINFORCED

3D GRID T

TENAX 3D GRID T is a significant improvement over traditional flat or planar base reinforcement geogrid thanks to a special «T» beam profile. The geogrid can develop a much higher transversal lateral confinement, while the wide base of both longitudinal and transversal ribs allows a better distribution of the load on soft subgrades. ***The result is a unique product specifically designed to reduce rut depth and thickness of aggregate base layer.***

TENAX 3D GRID XL

US PATENT N. US8,206,060 B2

EUROPEAN PATENT N.2236668

CHINA PATENT N. ZL201010157334,1

ITALIAN PATENT N. 1393817

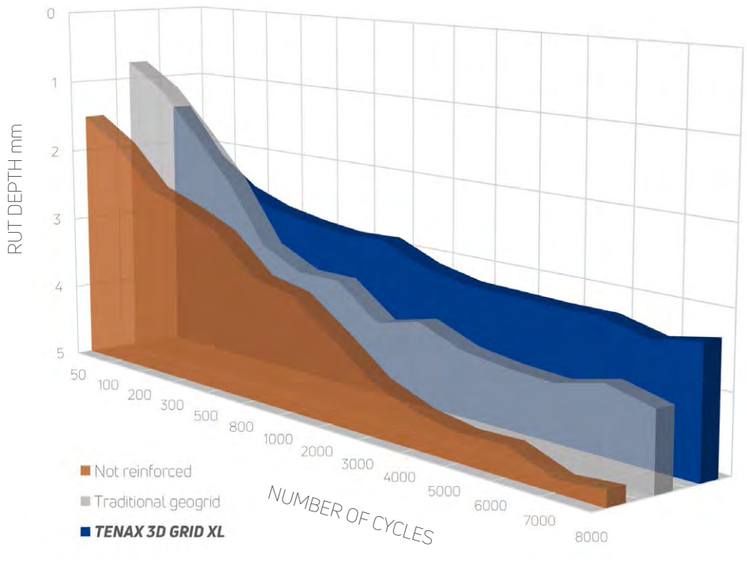
RUSSIAN PATENT N. 2520597

3D GRID XL behavior was tested in collaboration with the Transport Science Department of the University of Tennessee.

TRAPEZOIDAL CROSS SECTION:
WIDE BASE, HIGH RIBS,
EXCELLENT APERTURE STABILITY
(> 1.00 N mm/deg)

SIZE APERTURE
SUITABLE FOR COARSE
AGGREGATE

THICK AND TOUGH RIBS,
EXCELLENT RESISTANCE TO DAMAGE



RUT DEPTH

-17%
COMPARED TO
TRADITIONAL GEOGRIDS

-31%
COMPARED TO
NOT REINFORCED SOIL

Wheel loads on a road are distributed along a channelized geometry (longitudinal direction) and can be analyzed considering plain strain conditions. The state of stress is directed mostly in vertical and transversal lateral direction. TENAX 3D GRID XL has been tested in cooperation with the Transport Science Department of the University of Tennessee: an extensive campaign was carried out using the APA (Asphalt Pavement Analyzer), a specific apparatus to assess the performance of road pavements.
The test confirmed that TENAX 3D GRID XL has a better performance compared to the traditional flat or planar geogrids.