Tenax High Modulus geogrids

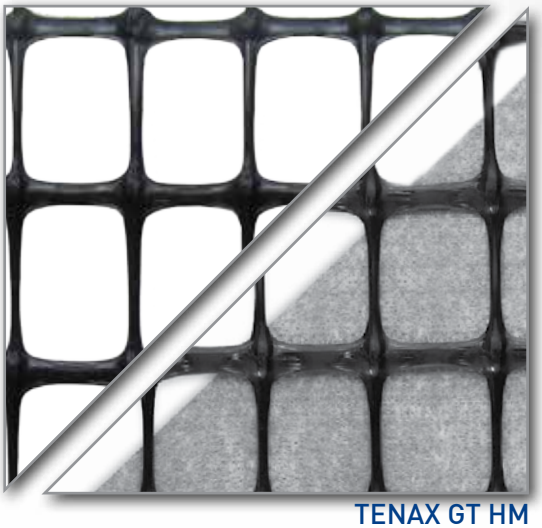
The sprinting geogrid for soil stabilization

TENAX LBO HM geogrids and **TENAX GT HM** geocomposites are the evolution of the traditional Polypropylene extruded bi-axial geogrids with integral junctions.

The uniqueness is in the **high value elastic modulus** and the resulting mechanical performances at low strains (0.5% and 2.0%).

1. **Reduced settlements** of the structure
2. **Elastic modulus > 10%** than traditional bi-axial geogrids
3. Maximum performance can be developed **immediately**
4. **No creep** within serviceability strain
5. **Better performances** at a lower cost

TENAX LBO HM



TENAX GT HM

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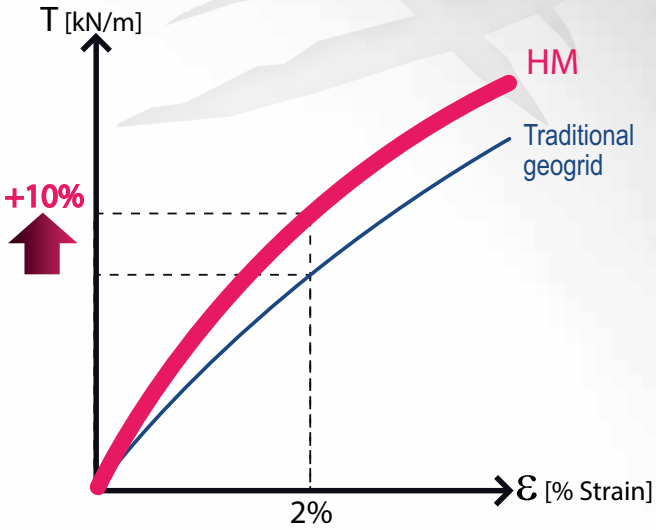
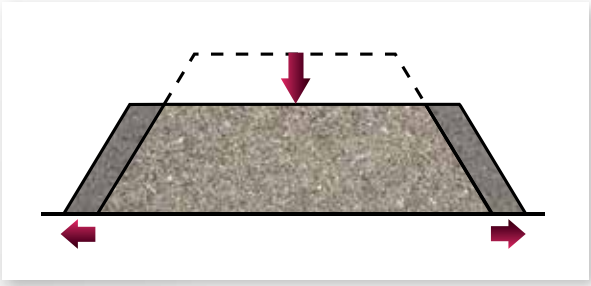
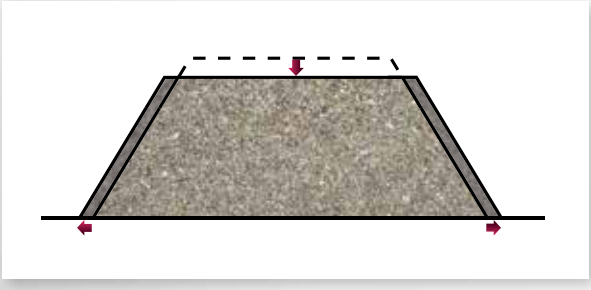
In stabilization works, the basic requirement to define the suitability of a reinforcement is the **modulus at low strains** (2% or less).

Using the Peak Tensile Strength as the main design parameter has no meaning considering the real operating conditions: in fact strains that develop at peak are not compatible with the stability of any structure.





With traditional geogrids.



With **TENAX High Modulus** geogrids

Example

If we have to design an embankment 30m width using the tensile strength as a parameter of design, it would mean having a deformation in the reinforcement of at least 10% .

This deformation corresponds to an elongation in the geogrid of 3m (10% of 30m) and so the embankment base length would increase from 30 to 33m.

Thus, in the middle of the embankment the settlement could be:
$[(33/2)^2 - 15^2]1/2 = 6.87$m...!

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