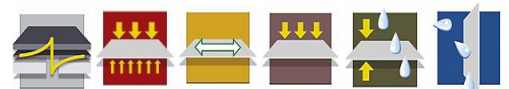
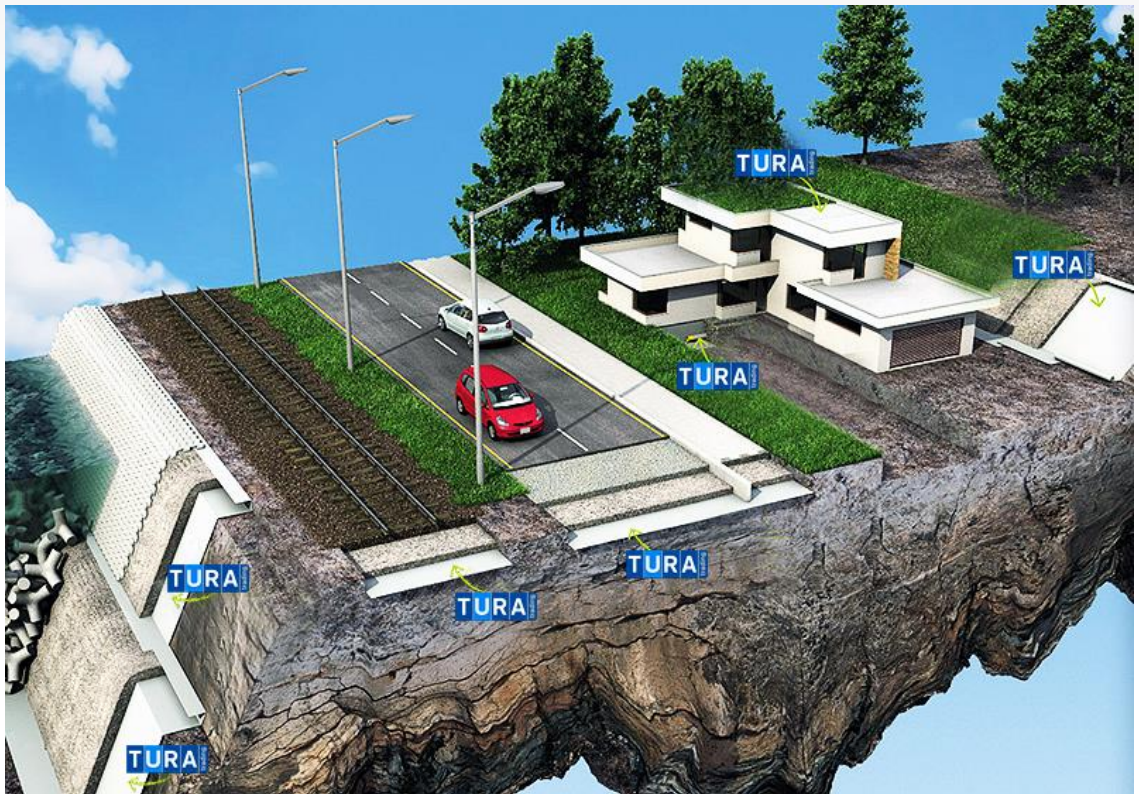




# GEOTEXTILES



# GEOTEXTILES

TURA Geotextiles products have many applications and currently support many civil engineering applications including roads, airfields, railroads, embankments, retaining structures, reservoirs, canals, dams, bank protection, coastal engineering and construction site silt fences. Usually geotextiles are placed at the tension surface to strengthen the soil.



Car parks & road works



Airports



Railways



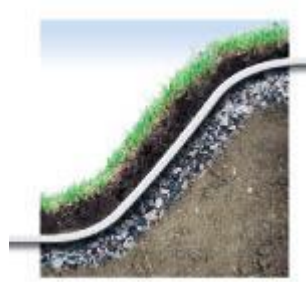
Stadiums



Waste disposal



Road expansions



Erosion on slopes



Pipes & trenches





# GEOTEXTILES

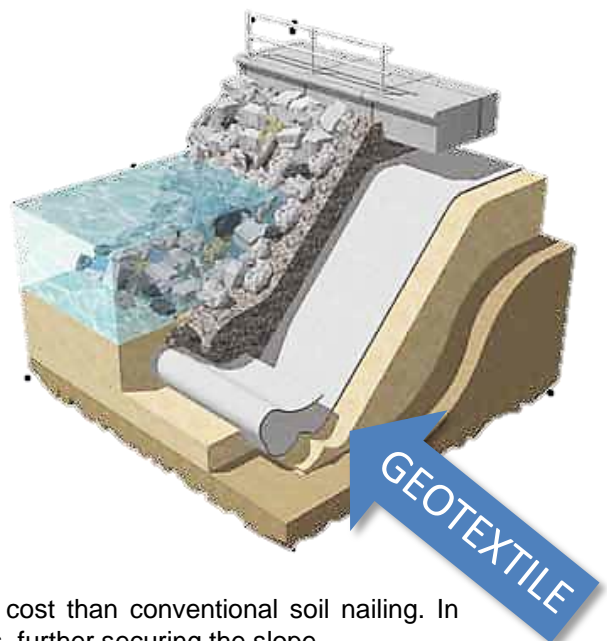
## Needlepunch production technology

This dry-laid technology is based on a two-step process. First, polypropylene resin or recycled extracts is extruded into fibres. Secondly, these fibres are carded and needlepunched and then bonded thermally to form nonwovens. Weights range from 100 g/m<sup>2</sup> to 1200 g/m<sup>2</sup>.



For geotextiles, needlepunch technology is in the forefront of production, thanks to its sophisticated machinery and the easy treatment of all kinds of virgin and recycled fibers. Geotextiles and filter media, along with bicomponent fibers for every conceivable quality of composite, occupy the limelight.

Throughout the textile chain, recycling is of growing significance. As the majority of thermoplastic man-made fibers are easy to recycle, products formerly consisting of various components have now been restructured to enable recycling of textile waste.

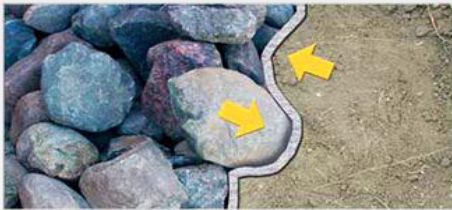


Geotextiles can improve soil strength at a lower cost than conventional soil nailing. In addition, geotextiles allow planting on steep slopes, further securing the slope.

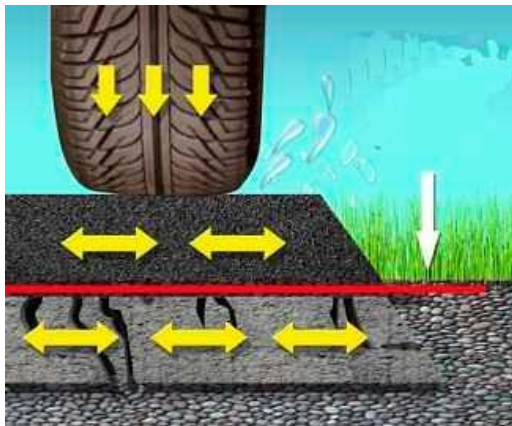
# GEOTEXTILES

Separation is the basic use of geotextiles and is widely practiced in road works and railway constructions.

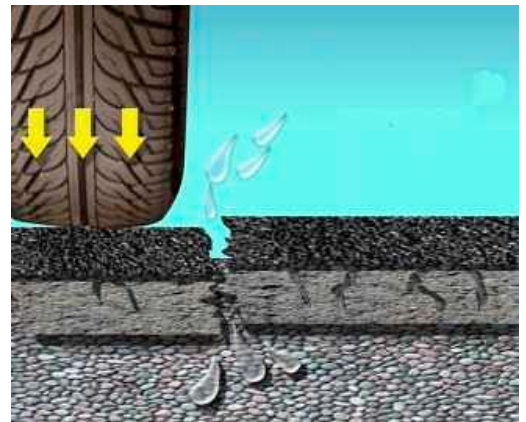
In the EN ISO standards, the separation function is defined as "The preventing from intermixing of adjacent dissimilar soils and/or fill materials by the use of a geotextile".



The durability and mechanical properties of our Geotextiles make them ideal as separating layers. A strong and flexible geotextile is placed between different layers in the construction, preventing migration and mingling of materials, yet allowing free movement of water. This increases the bearing capacity of the construction and provides long term stability of the foundation layers. The tensile strength, puncture resistance and elongation properties of the geotextile have to be sufficient not only to fulfil the requirements of a separator but also to resist damage during installation.



With geotextile



Without geotextile

# GEOTEXTILES

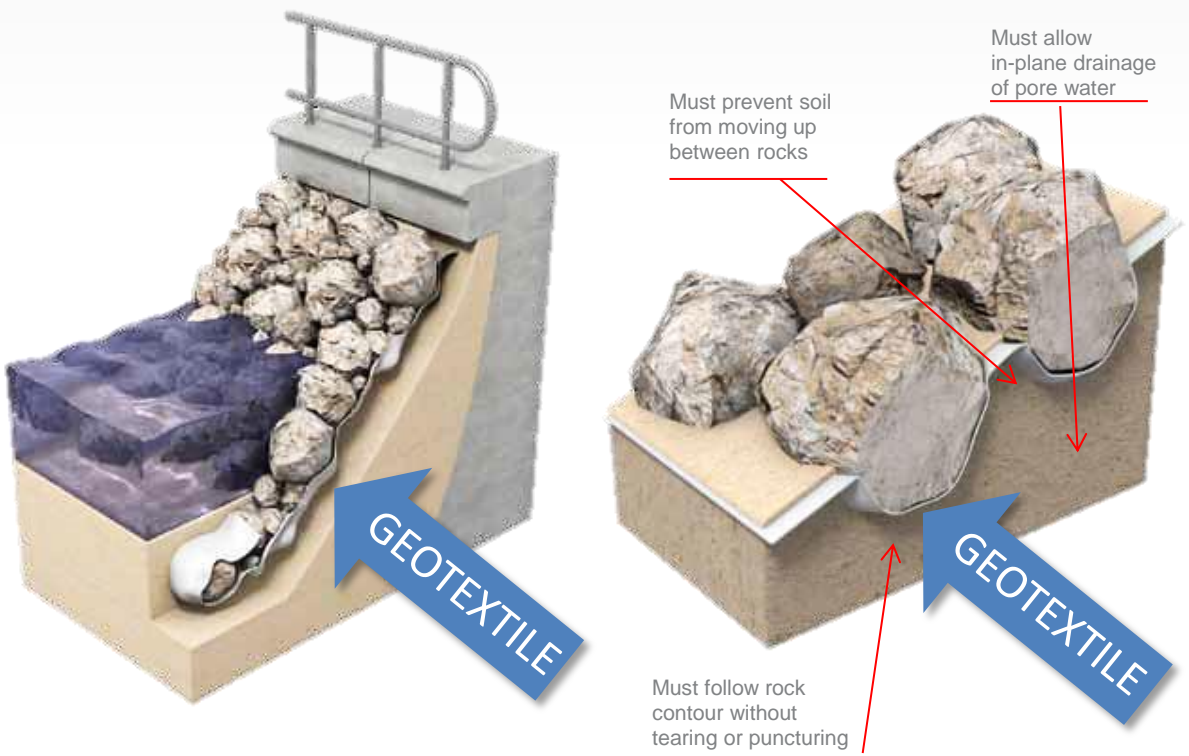
## Resistance to Damage

Geotextiles are widely used for filtration in road works and railway constructions as well as coastal protection. The filtration function of a geotextile serves the same purpose as the separation function, but under different circumstances. In the EN ISO standards the filtration function is defined as "The restraining of soil or other particles subjected to hydrodynamic forces while allowing the passage of fluids into or across a geotextile".

## Geotextile properties

The tensile strength, puncture resistance and elongation properties of the geotextile have to be sufficient not only to fulfil the requirements to a filtrator but also to resist damage during installation. The characteristic opening size of the geotextile must be sufficient to retain fines and to prevent contamination of the aggregate base while the permeability must be high enough to allow free movement of water.

- To avoid migration of fine material into coarse material as a result of water flow in the soil
- To maintain the water flow in the soil with minimum pressure loss
- To prevent migration of fine material as a result of pump effects from dynamic loads such as traffic





# GEOTEXTILES

Asphalt Reinforcement Woven Fiberglass Geogrid

## Geocomposite fulfilling reinforcement, separation and filtration functions

The product thus combines the traditional reinforcing function of geosynthetics with other functions, specifically separation and filtration, as needed by the particular construction project.



Asphalt Reinforcement Woven  
Fiberglass Geogrid



## ADVANTAGES

Asphalt reinforcement;

- Improves the tensile strength of the asphalt concrete by forming reinforcement layer. The laboratory and field tests conducted to this effect demonstrated that the fiberglass geogrids improve the service life of the superstructure coatings at 80%.
- Compensates the tensile stresses within the asphalt concrete arising from thermal effects, thus preventing cracks at the overlay.
- Compensates the reflective crack tensions acting from the substructure and prevents transition of the same to the superstructure and minimizes crack formation thus improving the durability and service life of the superstructure.

# GEOTEXTILES



[www.tura-tr.com](http://www.tura-tr.com)



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