



# Expangeo\*

## Needle-punched Non woven geotextile

### Uses

**Separation** – the use of a geotextile to prevent the intermixing of dissimilar soil layers.

**Filtration** – the use of a geotextile to allow the passage of fluids (most commonly water) while preventing the uncontrolled passage of soil particles.

**Drainage** – the use of a geosynthetic layer to collect and transport fluids whining its own thickness.

**Reinforcement** – the use of the tensile properties of a geosynthetic material to resist stresses or contain deformations in soil structures.

**Erosion Control** - the use of a geosynthetic material to prevent the loss of soil particles from water erosion.

**Protection** – the use of a geosynthetic material as a stress reduction layer to prevent or reduce damage to an adjacent surface or layer.

**Needle-punched Non-woven Product Range**  
VNW Et SNW Grade: produced using either white or colored staple virgin fiber these products range in weight from 100 grams to 1200 grams / m<sup>2</sup>, the end products are of a felt like appearance and are used in the geotextile functions of protection, drainage, and erosion control, areas of application include protection layers in landfill sites, water storage reservoirs and erosion control system on river bank or a coastline.

Technical fabrics can also offer a selection of specialist products that are manufactured to order for those projects with more demanding mechanical and hydraulic requirements, examples are asphalt overlay fabrics and custom made geocomposites.

### Advantages

- Good resistance to chemicals agent, salts normally found in soil
- Good UV resistance
- Good puncher resistance
- Can be use in coating system to increase the system thickness
- Non-toxic

### Properties

|                                |                     |                     |                     |
|--------------------------------|---------------------|---------------------|---------------------|
| Geotextile grade               | 100                 | 125                 | 140                 |
| Mass per unit area             | 100g/m <sup>2</sup> | 125g/m <sup>2</sup> | 140g/m <sup>2</sup> |
| Thickness                      | 1.40 mm             | 1.70 mm             | 1.80 mm             |
| Transmissivity                 |                     |                     |                     |
| under 2kN/m <sup>2</sup> L/m/h | 100                 | 125                 | 140                 |
| Flow rate 10cm head            |                     |                     |                     |
| L/m <sup>2</sup> /S            | 240                 | 200                 | 190                 |
| Permeability cm/sec            | 0.35                | 0.32                | 0.25                |
| Puncture strength              | 180 N               | 220 N               | 260 N               |
| Dynamic puncture mm            | 30                  | 26                  | 22                  |
| Elongation at 30% load %       | 30                  | 30                  | 30                  |

### Supply / Packing

Roll size: 2 mt. x 200 mt.= 400 m<sup>2</sup>  
Geotextile color: White

### High mass geotextile are also available

180 g/m<sup>2</sup>  
200 g/m<sup>2</sup>  
250 g/m<sup>2</sup>  
285 g/m<sup>2</sup>  
325 g/m<sup>2</sup>  
385 g/m<sup>2</sup>  
400 g/m<sup>2</sup>

### Health & Safety

Expangeo\* is not health hazards.  
Expangeo\* is flammable, keep away from the naked flame.

# Application of Geotextile



CONSTRUCTION CHEMISTRY

Seabed, Coastal and Riverbank Protection



Filtration / Drainage



Separation / Soil Stabilisation



Reinforced Soil



Concrete Mattresses



Geomembrane Protection



Asphalt Overlay Fabrics



Geobags



Railtrack Maintenance and Renewal



Pipeline Protection



\*Denote the trade mark registered

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