Staple Fiber Nonwoven Needle Punched Geotextile

TechFab

TECHFAB INDIA
At the heart of geosynthetic activity
The use of geotextiles in civil engineering applications has grown up substantially since their first usage in 1960. Geotextile are now widely applied in most of the Civil Engineering applications. The most commonly used Nonwoven Geotextile are Needle Punched due to their proven track record and versatility.

TechGeo nonwoven needle-punched geotextile manufactured by Techfab India Industries is produced from specially engineered UV stabilized 100% Polypropylene yarn to form stable network of Staple fibers in order to ensure desired engineering properties in the fabric.

The characteristics of a Nonwoven Geotextile are determined by type of raw material, structure of fiber matrix and bonding method. Commonly prevalent raw materials for Nonwoven Geotextile are Polypropylene (PP) or Polyester (PET). There are three types of bonding mechanisms for manufacturing of Nonwoven Geotextile: Mechanical Bonding or Needle Punching in which randomly oriented short staple fibers or continuous filament layers (fleece) are bonded together through process of Needling; In Thermal bonding the short fibers are bonded together through Heating Process, in Chemical bonding the fibers are bonded together through chemical coating.

TechGeo nonwovens are produced from state of art fully automatic German Dilo plant from the UV stabilized Crimped staple fiber produced from 100% virgin PP.

TechGeo Nonwoven Geotextile are manufactured through process of Needle-punching that involves forcibly entangling layers of loose staple fibres into three dimensional structure (fig 1b) by sequentially punching and pulling out barbed needles through the fiber matrix. TechGeo Nonwovens are produced with UV stabilized select Crimped staple fibers and firm interlocking bond ensured through German Dilo machine exhibit high abrasion and CBR puncture resistance.

TechGeo Needle-punched nonwovens have higher elongation due to the flexible and non-brittle fibre junctions. Due to their superior elongation behavior TechGeo nonwovens can accommodate soil irregularities in better way and are more resistant to puncture and can absorb more impact energy. The compact and randomly oriented fiber matrix provide excellent filtration characteristics and hydraulic properties in TechGeo Nonwovens.
## TechGeo NonWovens: An Overview

- Made of 100% PP stable fiber
- High UV and Abrasion Resistance
- Stable in pH range of 2 - 13 and resistant to biological degradation
- Available in ‘N’ AND ‘H’ series from 120 to 1200 GSM
- Upto tensile strength of 75Kn/m
- ‘N’ Range excellent filtration behavior, ‘H’ range thick and robust for Protection and Separation applications
- Excellent clogging resistance

### How to select right TechGeo Grade?

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Why TechGeo Nonwovens?

- Excellent Mechanical and Hydraulic Properties
- Wider Product Range
- High UV and Abrasion Resistance
- Available upto 5.0m width
- ISO 9001 Certified
- State-of-art manufacturing plant having 4000 Tonne per annum capacity
- Reliability and Trust of TechFab Brand
- Technical Support from qualified Technical People
- Well proven in the field
- Approval in several Government departments
- Complete QC Test facilities in a modern lab as per ISO and ASTM standards

Important Notice
The information contained in this brochure is general in nature and does not cover any particular site or soil conditions. This is only for guidance purposes. Users are advised to take into account the prevailing site conditions and data before specifying a particular product. For details about the TechGeo applications pl. contact us on our contact details

World-Class Geosynthetics Manufactured in India by TechFab India Industries Ltd.

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