

# Shield GeoTex

## Non-Woven Polyester Geotextile



### Description

**Shield GeoTex** is a nonwoven geotextile produced from white polyester staple fibers, mechanically bonded through a needle-punching process to form a strong, dimensionally stable, and durable fabric. **Shield GeoTex** is UV-resistant, with a high melting point, geotextile designed to provide excellent separation, filtration, and protection performance for various geotechnical and civil engineering applications.

### Uses

- Used as a filter, allowing water to pass while retaining soil particles.
- Used for soil stabilization in road, railway, basins and dams construction.
- Works as a moisture barrier when impregnated with asphalt or resin.
- Provides separation between different soil or aggregate layers.
- Serves as a drainage layer for water and gas movement within the soil.
- Applied in landfills, landscaping, and drainage systems as a separator and filter.
- Offers protection to waterproofing membranes and geomembranes.

### Characteristics / Advantages

- Lightweight and easy to handle, cut, and install on site.
- High permeability.
- Resistant to UV radiation and chemicals.
- High tensile strength.
- High elongation.
- Dimensional stability under stress.
- Flexibility and long durability.
- Can withstand high temperatures without melting or deforming.

### Properties

|               |        |
|---------------|--------|
| Color         | White  |
| Melting Point | 250 °C |
| Roll Width    | 3 m    |
| Roll Length   | 100 m  |

### Shelf Life and Storage

**Shield GeoTex** has an unlimited shelf life when stored in cool and dry conditions, protected from direct sunlight, heat, and moisture. The storage area should be free from any equipment that generates ozone.

### Safety Instructions

Hot weld site jointing of **Shield GeoTex** may generate acidic gases such as hydrogen chloride vapor. Place the spliced materials in open or well-ventilated area, wearing proper PPEs is highly recommended to avoid any circumstances.

The operational exposure limit of 5 ppm can be exceeded in still air confined spaces, therefore forced ventilation and wearing proper PPE are recommended. For further information, refer to the Material Safety Data Sheet.

### Technical Support

Refer to contacting technical information, method statement or technical support team for any inquiry.



## Typical Properties

| Properties                                    | Unit                              |     |     |     |      |      |      |      |      |      |      |      |
|-----------------------------------------------|-----------------------------------|-----|-----|-----|------|------|------|------|------|------|------|------|
| Thickness                                     | (mm)                              | 1.3 | 1.4 | 1.6 | 1.8  | 2.3  | 2.7  | 2.8  | 3.1  | 3.4  | 4.0  | 4.6  |
| Mass per unit area<br>(EN ISO 9864)           | (g/m <sup>2</sup> )               | 80  | 100 | 120 | 140  | 200  | 280  | 300  | 350  | 400  | 500  | 600  |
| Tensile Strength<br>CD<br>(EN ISO 10319)      | (kN/m)                            | 2.7 | 4.0 | 5.4 | 6.3  | 9.9  | 15.3 | 17.0 | 22.0 | 26.4 | 32.3 | 38.4 |
| Tensile strength<br>MD<br>(EN ISO 10319)      | (kN/m)                            | 2.4 | 3.6 | 4.5 | 5.4  | 8.2  | 10.2 | 11.2 | 12.8 | 14.6 | 18.0 | 20.4 |
| Elongation<br>CD<br>(EN ISO 10319)            | (%)                               | 60  | 60  | 60  | 60   | 60   | 60   | 60   | 60   | 60   | 60   | 60   |
| Elongation<br>MD<br>(EN ISO 10319)            | (%)                               | 50  | 50  | 50  | 50   | 50   | 50   | 50   | 50   | 50   | 50   | 50   |
| CBR<br>puncture<br>strength<br>(EN ISO 12236) | (N)                               | 525 | 675 | 880 | 1035 | 1530 | 2160 | 2380 | 2810 | 3230 | 3910 | 4760 |
| Dynamic<br>cone drop<br>(EN ISO 13433)        | (mm)                              | 34  | 32  | 30  | 27   | 23   | 16   | 14   | 12   | 10   | 8    | 5    |
| Permeability<br>(EN ISO 11058)                | 10 <sup>-3</sup> ms <sup>-1</sup> | 100 | 95  | 90  | 80   | 75   | 60   | 55   | 53   | 50   | 40   | 30   |
| Flow rate<br>(EN ISO 11058)                   | l/m <sup>2</sup> /s               | 100 | 95  | 90  | 80   | 75   | 60   | 55   | 53   | 50   | 45   | 30   |
| Opening<br>size<br>(EN ISO 12956)             | microns                           | 106 | 106 | 106 | 100  | 90   | 75   | 75   | 70   | 70   | 67   | 65   |

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