

# REC GEO TEXTILE PET

## Nonwoven Geotextile Made of Polyester for Filtration, Separation, and Protection

### PRODUCT

**REC GEO TEXTILE PET** is a nonwoven geotextile made of polyester, needle-punched and calendered, produced to provide filtration, separation, and protection properties. **REC GEO TEXTILE PET** acts as a sand filter by allowing water to move through the soil while retaining upstream soil particles. **REC GEO TEXTILE PET** acts to separate two layers of soil that have different particle-size distributions. **REC GEO TEXTILE PET** also acts as anti-puncture protection, helping to prevent local damage to exposed waterproofing membranes.

### GENERAL CHARACTERISTICS

|                       |                                 |
|-----------------------|---------------------------------|
| Polymer               | Polyester                       |
| Specific Weight       | 1.38 kg/dm <sup>3</sup>         |
| Raw Material          | Staple fibers                   |
| Manufacturing Process | Needle punching and calendering |
| Color                 | Raw white                       |

### PHYSICAL PROPERTIES

| Property                           | Unit             | 120 | 150 | 200 | 250 | 300 | 350  | 400 | 500 | 600 | 800 | 1000 | 1200 | 1500 |
|------------------------------------|------------------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|------|------|------|
| Mass per Unit Area (EN ISO 9864)   | g/m <sup>2</sup> | 120 | 150 | 200 | 250 | 300 | 350  | 400 | 500 | 600 | 800 | 1000 | 1200 | 1500 |
| Thickness at 2 kPa (EN ISO 9863-1) | mm               | 0.7 | 0.9 | 1.1 | 1.3 | 1.6 | 1.75 | 1.9 | 2.2 | 2.8 | 3.5 | 4.0  | 4.5  | 6.0  |
| Roll Size                          | m <sup>2</sup>   | 900 | 200 | 100 | 100 | 100 | 420  | 100 | 300 | 240 | 180 | 180  | 150  | 150  |

### MECHANICAL PROPERTIES

|                                                                 |      |     |     |     |     |     |     |     |     |     |     |      |     |     |
|-----------------------------------------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|
| <b>Tensile Strength Test Method</b> (EN ISO 10319)<br><b>MD</b> | kN/m | 0.6 | 1.2 | 1.8 | 2.0 | 2.5 | 2.8 | 3.2 | 4.2 | 5.5 | 6.5 | 7.5  | 13  | 20  |
| <b>CMD</b>                                                      | kN/m | 0.7 | 1.2 | 1.8 | 2.0 | 2.7 | 3.2 | 4.0 | 5.2 | 7.5 | 9.0 | 10.5 | 16  | 25  |
| <b>Elongation at Maximum Load</b> (EN ISO 10319)<br><b>MD</b>   |      | 50% | 50% | 50% | 50% | 50% | 50% | 50% | 60% | 70% | 80% | 80%  | 80% | 80% |
| <b>CMD</b>                                                      |      | 60% | 60% | 60% | 60% | 60% | 60% | 60% | 70% | 80% | 90% | 90%  | 90% | 90% |

|                                                         |                        |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---------------------------------------------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>ENERGY ABSORPTION INDEX</b><br>(EN ISO 10318)        | $\text{kJ/m}^2$        | 0.2 | 0.3 | 0.5 | 0.6 | 0.7 | 0.8 | 1.0 | 1.5 | 2.4 | 3.3 | 3.8 | 6.2 | 9.6 |
| <b>STATIC PUNCTURE RESISTANCE</b><br>(EN ISO 12236)     | kN                     | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1.2 | 1.8 | 2.2 | 2.8 | 4.0 |
| <b>DYNAMIC PUNCTURE RESISTANCE</b><br>(EN ISO 13433)    | mm                     | 50  | >50 | >50 | 45  | 40  | 30  | 20  | 16  | 6   | 2   | 0   | 0   | 0   |
| <b>PYRAMIDAL PUNCTURE RESISTANCE</b><br>(EN ISO 14574)  | N                      | 20  | -   | -   | -   | 100 | 150 | 180 | 200 | 250 | 300 | 500 | 700 | 800 |
| <b>HYDRAULIC PROPERTIES</b>                             |                        |     |     |     |     |     |     |     |     |     |     |     |     |     |
| <b>Permeability Normal to the Plane</b><br>EN ISO 11058 | $\text{mm/s}$          | 120 | 110 | 100 | 80  | 60  | 50  | 40  | 30  | 25  | 20  | 20  | 20  | 20  |
| <b>In-Plane Flow Capacity</b><br>EN ISO 12958           | $10^{-3} \text{ l/ms}$ | 0.8 | 1.6 | 2.1 | 2.3 | 2.7 | 3.0 | 3.2 | 5.0 | 7.0 | 8.0 | 9.0 | 9   | 9   |
| <b>Characteristic Opening Size</b><br>EN ISO 12956      | $\mu\text{m}$          | 65  | 65  | 60  | 55  | 55  | 55  | 45  | 45  | 35  | 35  | 30  | 30  | 30  |

## SCOPE OF USE

REC GEO TEXTILE PET is suitable for use in:

- Roads.
- Railways.
- Retaining walls.
- Drainage systems.
- Erosion control systems.
- Basins and dams.

- Canals.
- Tunnels.

### APPLICABLE STANDARDS

REC GEO TEXTILE PET fulfils the requirements of the applicable European directives related to construction products.

### DURABILITY PROPERTIES

REC GEO TEXTILE PET should be covered within 1 day of installation. The material can be exposed to sunlight; however, degradation of mechanical properties may occur depending on the season and latitude. The durability forecast is a minimum of 5 years in natural ground with a pH between 4 and 9 and a soil temperature above 25°C, as stated in the supplied source data.

### SHELF LIFE & STORAGE

Shelf life is one year from the date of manufacture when stored in tightly closed original containers. Store in a cool, dry and well-ventilated area, protected from extreme temperatures, direct sunlight, and sources of heat. Keep containers tightly sealed when not in use.

### SAFETY PRECAUTIONS

Avoid contact with skin and eyes and do not inhale vapors or spray mist. Wear suitable gloves, eye protection, and protective clothing during mixing and application. Use in a well-ventilated area.

### QUALITY STATEMENT

All our products are manufactured to comply with our internal quality management system to ensure consistency and quality.

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