

## Mirafi® X-Series Woven Polypropylene Geotextiles for Soil Separation

TenCate develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

The Difference Mirafi® X-Series Geotextiles Make:

- **Construction.** Woven slit-film construction offers good resistance to installation abuse.
- **Strength.** High grab tensile and puncture strengths provide good performance in a wide range of roadway applications.
- **Environmental.** Mirafi® X-Series geotextiles are chemically stable in a wide range of aggressive environments.
- **Cost Effective.** Mirafi® X-Series geotextiles provide economical solutions to many civil engineering applications including a cost-effective road base separation layer.

### APPLICATIONS

Mirafi® 500X applications include separation under parking lots, residential streets, and roadways. Mirafi® 500X is used over good to moderate strength subgrades for separation of base materials. Mirafi® 500X meets AASHTO M288-06 Specifications for Stabilization and Separation - Class 3.

Mirafi® 600X is used for separation and stabilization over moderate subgrades where coarse, angular, and abrasive base material is required. Mirafi® 600X provides separation and stabilization when moderate loads are expected. Mirafi® 600X meets AASHTO M288-06 Specifications for Stabilization and Separation - Class 1 and 2.

### INSTALLATION GUIDELINES\*

#### Geotextile Placement

Place the geosynthetic directly on prepared site. It is advisable to leave vegetative cover such as grass and weeds in place to provide a support matting for construction activities. It should be rolled out flat and tight with no folds. The rolls should be oriented as shown on plans to insure the principal strength direction of the material is placed in the correct orientation. Adjacent rolls should be overlapped or seamed as a function of subgrade strength (CBR).

Prior to fill placement, the geosynthetic should be held in place using suitable means such as pins, soil, staples or sandbags so that it does not move during fill placement.



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#### Fill Placement

Fill should be placed directly over the geosynthetic in 8in (20cm) to 12in (30cm) loose lifts. For very weak subgrades, 18in (45cm) thicker lifts may be required to stabilize the subgrade, as directed by the engineer.

Typically, vehicles should not be driven on Mirafi® X-Series geotextiles. Tracked construction equipment should not be operated directly upon the geosynthetic. A minimum fill soil thickness of 6in (15cm) is required prior to operation of tracked vehicles over the geosynthetic. Turning of tracked vehicles should be kept to a minimum to prevent tracks from displacing the fill and damaging the geosynthetic.

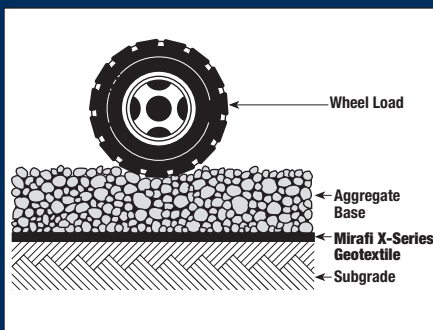
\* These guidelines serve as a general basis for installation. Detailed instructions are available from your TenCate™ representative.



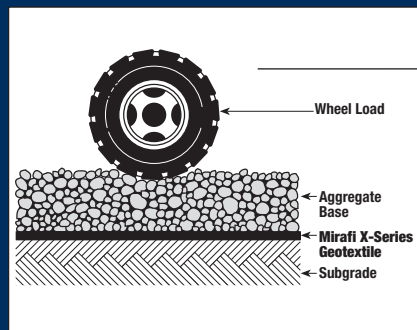
## Mirafi® X-Series Woven Polypropylene Geotextiles for Soil Separation

| Property                      | Test Method | Units                                              | 500X                                    | 600X                                    |
|-------------------------------|-------------|----------------------------------------------------|-----------------------------------------|-----------------------------------------|
| <b>Mechanical Properties</b>  |             |                                                    | <b>Minimum Average Roll Average</b>     |                                         |
| Grab Tensile Strength         | ASTM D4632  | lbs (N)                                            | 200 (890)                               | 315 (1402)                              |
| Grab Tensile Elongation       | ASTM D4632  | % MD / CD                                          | 15/15                                   | 15/15                                   |
| Trapezoid Tear Strength       | ASTM D4533  | lbs (N)                                            | 75 (334)                                | 113 (503)                               |
| CBR Puncture Strength         | ASTM D6241  | lbs (N)                                            | 700 (3115)                              | 900 (4005)                              |
| <b>Hydraulic Properties</b>   |             |                                                    | <b>Maximum Opening Size</b>             |                                         |
| Apparent Opening Size         | ASTM D4751  | US Sieve (mm)                                      | 40 (0.425)                              | 40 (0.425)                              |
|                               |             |                                                    | <b>Minimum Roll Value</b>               |                                         |
| Permittivity                  | ASTM D4491  | sec <sup>-1</sup>                                  | 0.05                                    | 0.05                                    |
| Flow Rate                     | ASTM D4491  | gal/min/ft <sup>2</sup><br>(l/min/m <sup>2</sup> ) | 4.0<br>(163)                            | 4.0<br>(163)                            |
|                               |             |                                                    | <b>Minimum Test Value</b>               |                                         |
| UV Resistance after 500 hours | ASTM D4355  | % Strength                                         | 70                                      | 70                                      |
| <b>Packaging</b>              |             | <b>Units</b>                                       | <b>500X</b>                             | <b>600X</b>                             |
| Roll Width                    |             | ft (m)                                             | 12.5 (3.8)<br>15.0 (4.57)<br>17.5 (5.3) | 12.5 (3.8)<br>15.0 (4.57)<br>17.5 (5.3) |
| Roll Length                   |             | ft (m)                                             | 432 (132)<br>360 (110)<br>309 (94.2)    | 360 (110)<br>300 (91.44)<br>258 (78.7)  |
| Roll Area                     |             | yd <sup>2</sup> (m <sup>2</sup> )                  | 600 (502)                               | 500 (418)                               |

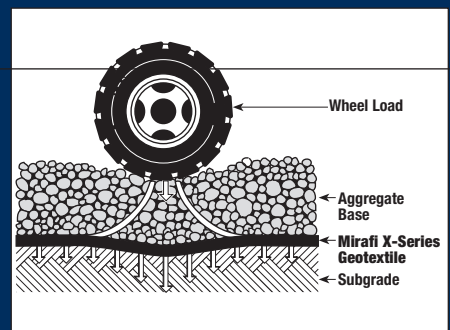
### Mirafi® X-Series Woven Polypropylene Geotextiles



Subgrade/Aggregate Separation



Aggregate Confinement



Subgrade Load Distribution

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