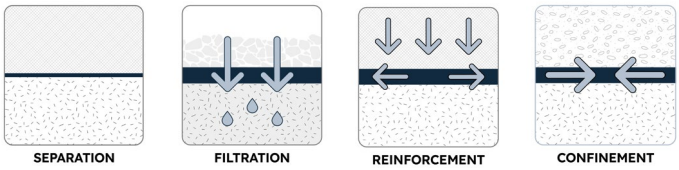
# MIRAFI RS380*i*




MIRAFI® RS380*i* is a specially designed geosynthetic that integrates the key performance characteristics to maximize performance. Extensive performance testing has been performed per AASHTO and FHWA guidelines to validate performance for both paved and unpaved roads. The patented weave pattern and unique Orange identifier yarn make the MIRAFI RS380*i* a unique performance geotextile.

TenCate Geosynthetics Americas (A Solmax Company) is accredited by Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP).

MIRAFI RS380i meets Build America, Buy America Act, Pub. L. No. 117-58, div. G §§ 70901-52.

| | GUIDANCE DOCUMENT / TEST METHOD | UNIT | DESIGN / CALIBRATION VALUE |
|---|---|---|---|
| Base Course $M_R$ Improvement Factor[1] | AASHTO R50-09 | -- | 1.3 |
| Traffic Benefit Ratio: TBR [2,3,4] | AASHTO R50-09 | -- | 3.9 / 5.2 / 21.75 |

| | | | MD | CD |
|---|---|---|---|---|
| Cyclic Tensile Modulus @ 2% Permanent Strain: $J_{cyclic}$ (MARV) | ASTM D7556 | lbs/ft (kN/m) | 54,406 (794) | 72,907 (1064) |
| Interaction Coefficient: $C_i$[5] | | | 0.89 | |
| Pore Pressure Dissipation Ratio[2] | | | 1.6 | |
| Average Dynamic Filtration Pore Size | ASTM D6767 | microns | $O_{95}$ - 392<br>$O_{85}$ -328<br>$O_{60}$ - 245<br>$O_{50}$ - 195 | |
| Tensile Strength (at 2% strain) | ASTM D4595 | lbs/ft (kN/m) | 600 (8.8) | 1,020 (14.9) |
| Tensile Strength (at 5% strain) | ASTM D4595 | lbs/ft (kN/m) | 1,800 (26.3) | 2256 (32.9) |

| INDEX PROPERTIES | TEST METHOD | UNIT | MAXIMUM ROLL VALUE |
|---|---|---|---|
| Apparent Opening Size (AOS) | ASTM D4751 | U.S. Sieve (mm) | 40 (0.425) |

| | | | MINIMUM AVERAGE ROLL VALUE |
|---|---|---|---|
| Hydraulic Flow Rate | ASTM D4491 | gal/min/ft$^2$ (l/min/m$^2$) | 75 (3056) |
| Permittivity | ASTM D4491 | sec$^{-1}$ | 0.9 |

| | | | MINIMUM TEST VALUE |
|---|---|---|---|
| UV Resistance (at 500 hours) | ASTM D4355 | % strength retained | 90 |

| PHYSICAL PROPERTIES | UNIT | ROLL SIZE |
|---|---|---|
| Roll Dimensions (width x length) | ft (m) | 15 x 300 (4.5 x 91)<br>17 x 300 (5.2 x 91.4) |
| Roll Area | yd$^2$ (m$^2$) | 500 (418)<br>567 (474) |
| Estimated Roll Weight | lbs (kgs) | 348 (157)<br>372 (169) |

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Notes:

[1] Value Determined from Results of Independent Testing Performed at Kansas State University in accordance with NCHRP Report 512 "Accelerated Pavement Testing: Data Guidelines" and AASHTO R50-09 Geosynthetic Reinforcement of the Aggregate Base Course of Flexible Pavement Structures." Multiplier for Unbound Granular Material; for SG MR between 4.5 and 6.9 ksi (30.9 and 47.4 MPa).

[2] Value Determined from Results of Independent Testing Performed at GeoTesting Express (GeoComp) "A Laboratory Evaluation of the Performance of TenCate Mirafi® Geosynthetics in Roadway Stabilization Applications – Georgia Silt Subgrade," September 1, 2011. 9-kip {40 kN} Wheel Load, SG CBR = 1%, 12-inch (300-mm) Crushed Aggregate BC (CBR > 25%), 3-inch (75-mm) Rut Depth.

[3] Value Determined from Results of Independent Testing Performed at LTRC "Performance of Reinforced–Stabilized Unpaved Test Sections Built Over Native Soft Soil Under Full-Scale Moving Wheel Loads," TRR Volume 2511, 2015. Measured at 0.34-inch (8.64 mm) Rut Depth; Peak Pore Pressure 6-inches (150 mm) Below Geosynthetic.

[4] Value Determined from Results of Independent Testing Performed at GeoTesting Express (GeoComp) "A Laboratory Evaluation of the Performance of TenCate Mirafi® Geosynthetics in Roadway Stabilization Applications – Montana Clay Subgrade," September 1, 2011. 9-kip (40 kN) Wheel Load, SG CBR = 1.8%, 8-inch (200-mm) Rounded Aggregate BC (CBR > 25%), 3-inch (75-mm) Rut Depth.

[5] Interaction Coefficient value is for sand (SP) or gravel (GW) based on testing conducted by SGI Testing Services.

*U.S. Patent 8,333,220 and 8,598,054*



For additional Patent Information, please visit our website or use the QR Code:
www.tencategeo.com/en-us/amer/resources/knowledge-library/patents

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