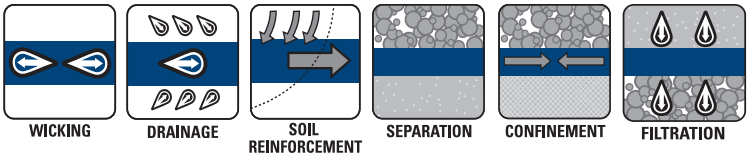
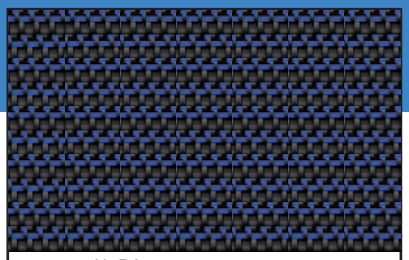
TENCATE Mirafi®



Mirafi® H_2Ri Woven Geosynthetic

for Soil Stabilization and Base Course Reinforcement Applications where differential settlement occurs due to heaving in the subgrade soils



Mirafi® H_2Ri -Series Woven Geosynthetic

TenCate develops and produces materials that deliver increased performance, reduce costs and measurable results to provide advanced solutions utilizing Mirafi® H_2Ri* geosynthetics that make a difference.

The Difference Mirafi® H_2Ri -Series Woven Geosynthetics Make:

- Wicking Capability. Special hydrophilic and hygroscopic 4DG™ Fibers that provides wicking action through the plane of the geosynthetic.
- Reinforcement Strength. Higher tensile modulus properties than the leading stabilization products.
- Separation and Filtration. Unique double layer construction provides an excellent separation factor with superior filtration and drainage. Uniform openings provide consistent filtration and flow characteristics of a fine to coarse sand layer.
- Soil and Base Course Interaction. Excellent soil and base course confinement resulting in greater load distribution.
- Durability. Robust damage resistance for moderate to severe stress installations.
- Roll Sizes. Mirafi® H_2Ri -Series geosynthetics come in several roll sizes to fit project requirements.
- Seams. Panels can be seamed in the factory or field, providing cross-roll direction strength to facilitate efficient installation.

APPLICATIONS

When superior performance, flexibility and versatility are necessary, Mirafi® H_2Ri -Series makes the difference for varying application needs including: base course reinforcement and subgrade stabilization for road, runway and railway construction; frost heave/frost boils; embankment stabilization on soft foundations; reinforcement for mechanically stabilized earth (MSE) structures; liner support, voids bridging, reinforcement over soft hazardous pond closures and other environmental market applications.

INSTALLATION GUIDELINES**

Geosynthetic Placement

Place geosynthetic directly on the prepared site. It is advisable to leave vegetative cover such as grass and weeds in place to provide a support matting for construction activities. The geosynthetic should be deployed flat and tight with no wrinkles or folds. The rolls should be oriented as shown on plans to ensure 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 Mirafi® H_2Ri -Series geosynthetic should be held in place using suitable means such as pins, soil, staples and sandbags to limit movement during fill placement.

Fill Placement

Fill should be placed directly over the Mirafi® H_2Ri geosynthetic in 20cm (8in) to 30cm (12in) loose lifts. For very weak subgrades, 45cm (18in) lifts or thicker lifts may be required to stabilize the subgrade, as directed by the engineer. Most rubber-tired vehicles can be driven at slow speeds, less than 16km/h (10mph) and in straight paths over the exposed geosynthetic without causing damage. Sudden braking and sharp turning should be avoided. Tracked construction equipment should not be operated directly upon the geosynthetic. A minimum fill soil thickness of 15cm (6in) 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 geotextile.

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

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Mirafi® H_2Ri Woven Geosynthetic

for Soil Stabilization and Base Course Reinforcement Applications where differential settlement occurs due to heaving in the subgrade soils

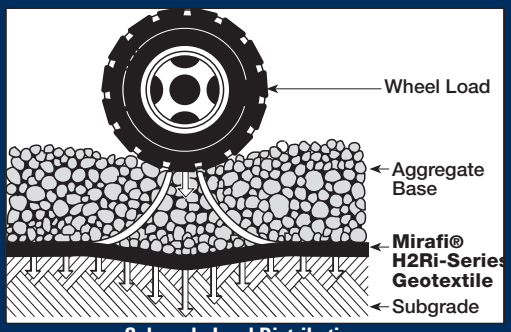
Mechanical Properties	Test Method	Unit	H2R*i*
			(Patent #7,874,767 and 8,070,395)
			Minimum Average Roll Value
Wide Width Tensile Strength			
Tensile Modulus @ 2% Strain (CD)	ASTM D4595	lbs/ft (kN/m)	45,000 (657)
Hydraulic			
Permittivity	ASTM D4491	sec^{-1}	0.24
Flow Rate	ASTM D4491	$gal/min/ft^2$ ($l/min/m^2$)	15 (611)
Apparent Opening Size (AOS)[2]	ASTM D4751	U.S. Sieve (mm)	40 (0.43)
Pore Size (050)[1]	ASTM D6767	microns	85
Pore Size (095)[1]	ASTM D6767	microns	195
			Tested Value
Wet Front Movement[3] (24 minutes)	ASTM C1559[4]	inches	6.0 Vertical Direction
Wet Front Movement[3] (983 minutes) Zero Gradient	ASTM C1559[4]	inches	73.3 Horizontal Direction

[1] Typical
[2] ASTM D4751 : AOS is Maximum Opening Diameter Value
[3] 'STP': Standard Temperature and Pressure
[4] Modified

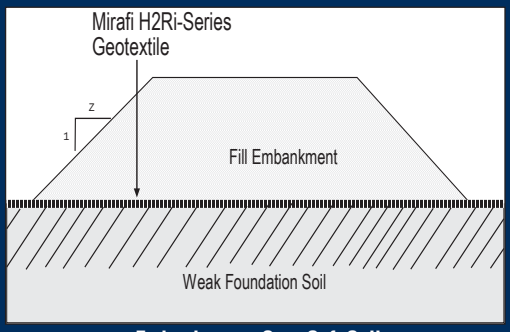
Physical Properties (Typical Value)	Unit	H2R*i*
Roll Width	ft (m)	15 (4.6)
Roll Length	ft (m)	300 (91)
Roll Area	yd^2 (m^2)	500 (418)

If material is exposed to water prior to installation, roll width, length and roll weight will increase up to 5%. Rolls should be covered during shipment and properly stored.

Mirafi® H_2Ri Series Woven Geosynthetics



Subgrade Load Distribution



Embankments Over Soft Soils

PDS.H2Ri0515

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TENCATE materials that make a difference