

Mirafi® H₂Ri Woven Geosynthetic

for improved Soil Stabilization and Base Course Reinforcement through Continuous Moisture Management

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

Mirafi® H₂Ri is a revolutionary geosynthetic. In addition to providing the conventional functions of reinforcement, confinement, separation and filtration, Mirafi® H₂Ri can also provide enhanced lateral drainage of soil/aggregate materials through continuous moisture management.

Mirafi® H₂Ri has unique hydrophilic and hygroscopic wicking yarns that provide enhanced drainage along the plane of the geosynthetic. This leads to a one-of-a-kind ability to remove water from roadways and other structures in unsaturated conditions.

The Difference Mirafi® H₂Ri Woven Geosynthetics Make:

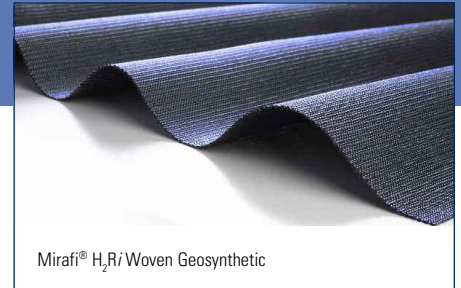
- **Moisture Management.** The unique hydrophilic and hygroscopic yarns provide enhanced lateral drainage.

- **Reinforcement Strength.** Higher tensile modulus properties than the leading stabilization products.
- **Separation and Filtration.** Unique double layer construction provides excellent separation with superior filtration and drainage.
- **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.

APPLICATIONS

When superior performance, flexibility and versatility are necessary, Mirafi® H₂Ri makes the difference for varying application needs including:

- Transporting water against gravity, reducing water accumulation due to ponding
- Increased roadway life expectancy in flexible pavements via mechanical and hydraulic stabilization



- Mitigation of frost heave and frost boils
- Mitigation of lateral edge cracking in expansive clays
- Replacement of drainage fill in high water table areas
- Additional working surfaces including:
 - Unpaved roads
 - Flexible pavements
 - Working platforms
 - Airport runways and taxiways
 - Railways





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MECHANICAL PROPERTIES	TEST METHOD	UNIT	H ₂ Ri
(PATENT #7,874,767 AND 8,070,395)			MINIMUM AVERAGE ROLL VALUE
Wide Width Tensile Strength			
MD	ASTM D4595	lb/ft (kN/m)	5280 (77.0)
CD	ASTM D4595	lb/ft (kN/m)	5280 (77.0)
Wide Width Tensile Strength @ 2% strain			
MD	ASTM D4595	lb/ft (kN/m)	480 (7.0)
CD	ASTM D4595	lb/ft (kN/m)	1080 (15.8)
			MAXIMUM OPENING SIZE
Apparent Opening Size (AOS)	ASTM D4751	U.S. Sieve (mm)	40 (0.425)
			MINIMUM AVERAGE ROLL VALUE
Permittivity	ASTM D4491	sec ⁻¹	0.4
Flow Rate	ASTM D4491	gal/min/ft ² (l/min/m ²)	30 (1222)
			MINIMUM TEST VALUE
Pore Size (050)	ASTM D6767	microns	85
Pore Size (095)	ASTM D6767	microns	195
Wet Front Movement ¹ (24 minutes)	ASTM C1559 ²	inches	6.0 Vertical Direction
Wet Front Movement ¹ (983 minutes) Zero Gradient	ASTM C1559 ²	inches	73.3 Horizontal Direction

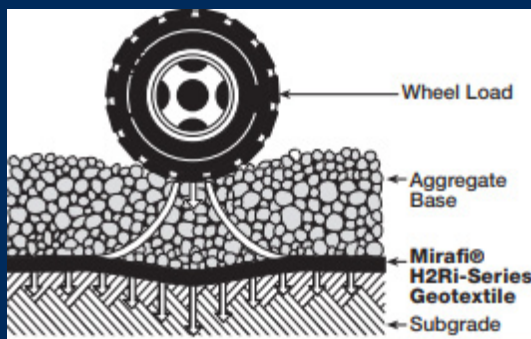
¹ "STP": Standard Temperature and Pressure

² Modified

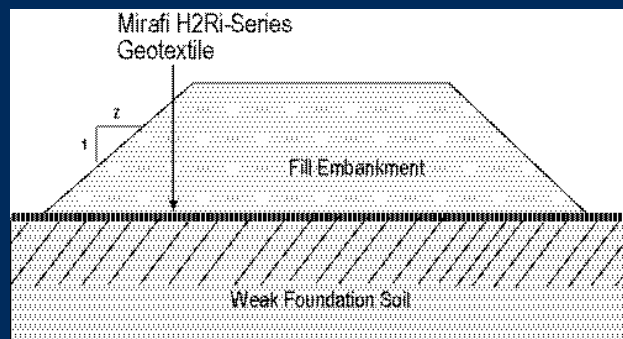
Wet Front Movement (ASTM C1559) is not covered by our current A2LA accreditation.

PHYSICAL PROPERTIES	UNIT	H ₂ Ri
Roll Width	ft (m)	15 (4.6)
Roll Length	ft (m)	300 (91)
Roll Area	yd ² (m ²)	500 (418)

Rolls should be covered during shipment and properly stored.



Subgrade Load Distribution



Mirafi® H₂Ri Over Soft Soils

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