

Mirafi® MPG⁴ Composite Paving Grid

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

Mirafi® MPG⁴ is a composite paving interlayer comprised of a lightweight polypropylene paving fabric reinforced with continuous filament fiberglass, mechanically fastened in the machine, cross and bias angle directions. This unique, patented quad axial paving interlayer is designed for highly distressed pavement conditions and in addition, the material will provide a moisture barrier against further moisture intrusion.

The Difference Mirafi® MPG⁴ Paving Composite Makes:

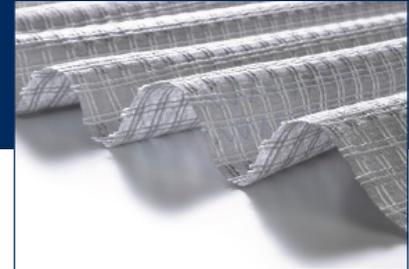
- **Crack Relief:** Mirafi® MPG⁴ adds pavement reinforcement by improving the fatigue resistance of the new overlay to traffic loads and delaying reflective cracking by utilizing the multi-directional design of the grid
- **Product Design:** Mirafi® MPG⁴ by its unique design is the first multi-directional composite paving grid offering reinforcement and moisture protection to distressed pavements in all directions.
- **Recyclability:** Mirafi® MPG⁴ can be milled and recycled into hot mix asphalt and reused saving on disposal costs lessening construction costs
Installation: Mirafi® MPG⁴ installs easily using standard paving fabric equipment. The unique mechanically

bonded structure provides optimum performance while providing a product that is less prone to wrinkling than other interlayers in this category.

- **Rehealing:** The installed Mirafi® MPG⁴ produces a saturated interlayer that promotes rehealing, which allows for moving asphalt at intersections reducing the likelihood of delamination.
- **Traffic Improvement:** The quadaxial grid reinforcement improves the fatigue life of the overlay, allowing it to carry more traffic. Useful in applications where you have to maintain the curb reveal, but you need to increase the structural capacity. If the design boundary conditions are met, then the MPG4 installed under a new overlay is equivalent in structural performance to adding 2-3 inches of additional asphalt thickness. Good practice dictates we should not recommend reducing pavement section thickness.
- **Moisture Barrier:** The asphalt binder application rate for these products provides sufficient binder for them to also provide moisture barrier benefits, after cracks appear on the surface. So, this performance is considered equivalent to adding another 1.2 in. of asphalt (ref. FHWA).

APPLICATIONS

Mirafi® MPG⁴ is specifically designed to be used in hot mix asphalt overlays over existing, distressed asphalt or jointed concrete pavements, or in new construction applications.



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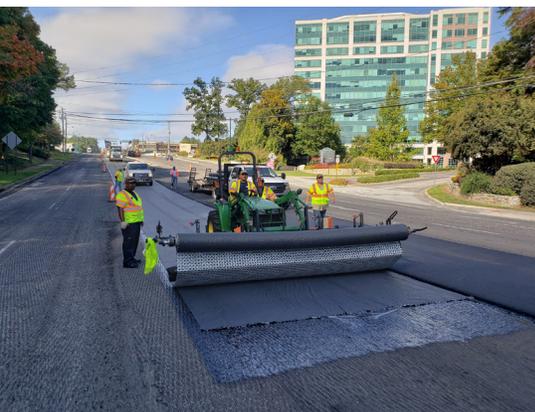
Mirafi® MPG⁴ paving composite is ideal for localized use, or over the full length of the following pavement types:

- Highways
- Urban Streets
- Airports
- Bridge Decks
- Parking Lots and Shopping Centers

It is recommended to use TenCate Geosynthetics Installation Guidelines when installing Mirafi® MPG⁴.

Mirafi® MPG⁴ composite paving grid is one of the easiest interlayers to install. The unique mechanically bonded but flexible structure of the MPG4 delivers a product that is more forgiving than other products, and therefore allows the product to not only to be installed on milled surfaces but also has significantly less wrinkles during construction, especially in curves and bends.

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



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Technical Data

MECHANICAL PROPERTIES	TEST METHOD	UNIT	MPG ⁴	MPG ⁴ -100
AVERAGE ROLL VALUE				
Tensile Strength @ 0°			459 (80)	655 (115)
Tensile Strength @ 90°	ASTM D6637	lbs/in	459 (80)	655 (115)
Tensile Strength @ 45°	Method A	(kN/m)	459 (80)	655 (115)
Tensile Strength @ -45°	Modified		459 (80)	655 (115)
Tensile Elongation		%	< 3	< 3
Mass/Unit Area	ASTM D5261	oz/yd ² (g/m ²)	16.6 (563)	20.0 (678)
MINIMUM TEST VALUE				
Melting point	ASTM D276	F° (C°)	Glass filaments are incombustible and temperature resistant up to 1472° (800°)	
Asphalt Retention	ASTM D6140	gal/yd ² (l/m ²) %	0.17 (0.8)	0.27 (1.2)
Glass by weight		%	85	77.4
PHYSICAL PROPERTIES	UNIT	MPG ⁴	MPG ⁴ -100	
ROLL CHARACTERISTICS				
Roll Dimensions (width x length)	ft (m)	6.25 x 300 (1.9 x 94.1)	6.25 x 300 (1.9 x 91.4)	
		12.5 x 150 (3.8 x 45.7)	12.5 x 150 (3.8 x 45.7)	
Roll Area	yd ² (m ²)	208 (174)	208 (174)	
Estimated Roll Weight	lbs (kg)	245 (111)	260 (169)	

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