



Sealing



Stress Relief



Adhesive Bonding

Case Study

application	Residential Street
location	Kensington Street, Schaumburg, IL
product	Mirafi® MPV 700, modified asphalt tack coat

installer	Road Fabrics, Inc
paving contractor	Arrow Road Construction

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 CHALLENGE

Kensington Street is a residential street with significant traffic from residents and service vehicles. The pavement was highly distressed and would require a thick pavement section to restore its condition and delay reflective cracking. Because of utility restrictions it was not practical and too expensive to specify a thick overlay. This project also required new curbs and sidewalks due to deterioration from age and climate.

THE DESIGN

The City of Schaumburg has successfully used paving fabrics for over 20 years to extend pavement life of asphalt for their overlay program. Mirafi® MPV 700 interlayer system was selected for Kensington Street because of Schaumburg's success with paving fabric and the favorable experience with modified asphalts.

Mirafi® MPV 700 was selected as the paving fabric because of the cold climate of Illinois. Thicker fabric such as Mirafi® MPV 700 holds more asphalt and allow for greater crack relief. Polymer modified asphalt have been shown to improve the temperature variation of refined grade liquid asphalt. This combination is prov-

ing to have a greater success rate in harsher environments including higher pavement distress and areas with greater temperature variation.

THE CONSTRUCTION

Construction started with a leveling course to fill in the irregular surfaces of the existing pavement.

Next a polymer modified asphalt tack coat PG 70- 26 modified with an SBS polymer was spread at a rate of .32gal/yd². When using the modified binder it is necessary to install the fabric in an optimum timely manner. The binder is spread hotter and it sets up quicker than an unmodified liquid asphalt grade binder.

Mirafi® MPV 700 overlay fabric was placed in the binder. Mirafi® MPV 700 is a 6 oz paving fabric manufactured to accept PG 70-16 at a rate of .30 gal/yd² to saturate the fabric structure with a recommended spread rate of .32± .05 gal/yd². The pavement overlay consisted of 5 cm (2 in) of IDOT hot mix asphalt.



Thick paving fabrics such as Mirafi® MPV 700 are ideal for cold, harsh climates. The completion of Kensington Street with Mirafi® MPV 700 should delay reflective cracking.

THE PERFORMANCE

The pavement overlay and fabric installation was completed in a timely manner without any construction problems. We expect that this system will perform up to our expectations as others in the area have. This section will be monitored for performance for future applications of the system.



Mirafi® MPV 700 paving fabric is installed on top of the modified asphalt tack coat.



PG70-26 modified with SBS polymer was spread at a rate of .32gal/yd².



After the fabric is installed, pavement overlay was spread with 5cm (2in) of IDOT hot mix asphalt.



It is necessary to install the paving fabric in a timely manner when using a modified asphalt binder.

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