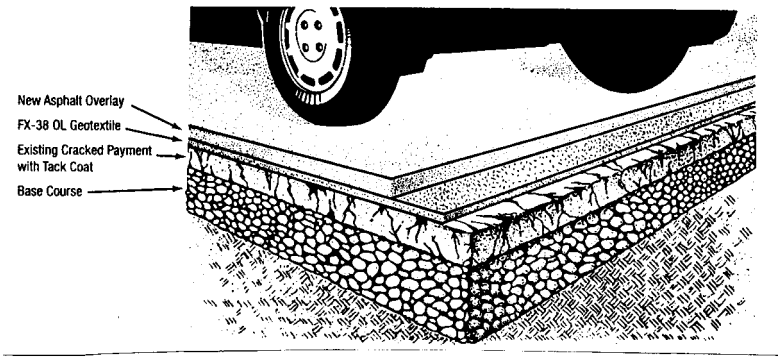
Asphalt Overlay Fabrics

Carthage Mills' asphalt overlay fabrics offer an economic solution to extending the useful life of pavement overlays. Reflective cracking – the reproduction of cracks from the original pavement through the new overlay – is the most common cause of asphalt overlay fatigue and failure. These cracks allow surface water to penetrate downward through the pavement, saturating and weakening the subgrade, and accelerating fatigue cracking. Specially developed and tested geotextiles have been proven to inhibit this process and extend the useful life of the asphalt overlay and pavement system.



FX™–38A/O and FX™–42A/O paving fabrics extend the useful life of new asphalt overlays.

Carthage Mills' FX™–38A/O and FX™–42A/O, when installed on a properly prepared surface and tack coat, improve the performance of asphalt road surfacing and resurfacing up to 50% by reducing the 'causes' of overlay fatigue failure. This is accomplished by (a) providing a *stress relieving interface* to inhibit reflective cracking, (b) *improving adhesion* strength between layers, and (c) forming an elastic *waterproofing membrane* between the overlay and underlying pavement. FX™–38A/O and FX™–42A/O are also highly recommended for use with chip seal surface treatments.

☐ FX™–38A/O and FX™–42A/O

Carthage Mills' **FX™–38A/O** and **FX™–42A/O** are nonwoven geotextiles designed specifically for asphalt overlay applications. Constructed of 100% polypropylene needle punched and calendered fibers, their ease of installation and superior performance in the field has found favor with owners and contractors alike. **FX–38A/O** exceeds the AASHTO M288-90 specification for paving overlay, **FX–42A/O** exceeds the AASHTO M288-00 specification, and both are approved by most DOT's across the USA.

☐ Installation Guidelines

1. Surface Preparation: The pavement surface must be cleaned of dirt, water, waste, grass/weeds, grease, and other material that could prevent bonding of the overlay. Cracks larger than ¼" should be cleaned and filled with a sealant.

2. Tack Coat Application: The application rate of the tack coat will normally vary between 0.20 and 0.25 gallons per square yard. The actual rate depends on the porosity of the old pavement, the tack coat being utilized, and the ambient temperature. However, sufficient tack coat must be applied to insure adequate saturation of the fabric and bond with the pavement surface. Emulsions should be used only if the appropriate amount of residual asphalt is applied and if the water is allowed to completely evaporate prior to laying fabric. Bleed-through should be avoided. The tack coat should be applied in a smooth and uniform manner at a temperature not to exceed 300° F. To insure proper coverage, the tack coat should be approximately 6" wider than the width of the fabric.

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3. Installing the Fabric: The fabric should be rolled out over the tack coat - calendered side up and with minimum wrinkles - while the tack coat is warm and has not lost its tackiness. Small wrinkles can be smoothed out with a hand broom. Those larger than ½" must be carefully slit and overlapped in the direction of the paving, applying additional tack coat between the layers. Seams should be overlapped at least 3" along the edges of the rolls and 6" at the roll ends.

4. Paving: No vehicular traffic should be allowed on the installed fabric. Once the fabric is installed, standard paving operations should be completed as soon as possible. Temperature of the overlay should not exceed 300° F. If for some reason the fabric becomes wet during installation, it must dry completely before being paved over. A wet fabric will not allow for proper lamination and may cause slippage and failure of the system. A minimum of 1½" of asphalt is recommended.

Note: Asphalt overlay fabrics can extend the life of an overlay system only if the pavement base is structurally sound. Drainage and base stabilization problems should be addressed prior to paving.

☐ Product Specifications

PROPERTY	TEST METHOD	FX™-38A/O		FX™-42A/O	
		METRIC	ENGLISH	METRIC	ENGLISH
Grab Tensile	ASTM D 4632	400 N	90 lbs	512 N	115 lbs
Grab Tensile Elongation		50%		50%	
Mullen Burst	ASTM D 3786	1440 kPa	210 psi	1570 kPa	220 psi
Puncture	ASTM D 4833	265 N	60 lbs	289 N	65 lbs
Trapezoidal Tear	ASTM D 4533	175 N	40 lbs	200 N	45 lbs
Mass Per Unit Area	ASTM D 5261	115 g/m^2	3.5 oz/yd^2	140 g/m^2	4.1 oz/yd^2
Thickness (Typical)	ASTM D 5199	0.7 mm	30 mils	0.8 mm	35 mils
Melting Point	ASTM D 276	>150°C	>300°F	>150°	>300°F
Asphalt Retention	ASTM D 6140	0.9 l/m^2	0.20 gal/yd^2	1.13 l/m^2	0.25 gal/yd^2

☐ Unless otherwise noted, all properties reported are Minimum Average Roll Values (MARV), and are calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any sample taken during quality assurance testing will exceed the value reported.
☐ The properties reported above are effective 02/01/03 and are subject to change without notice.

Membership Affiliations Include:

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