

MasterSeal™ MTR-PLUS



**Tire Rubber & Polymer Modified
Surface Treatment**



DESCRIPTION:

MasterSeal MTR-PLUS, is a high-solids, mineral and fiber reinforced asphalt emulsion, modified with polymers and terminal blended whole scrap tire rubber.

MTR-PLUS is job-mixed with select aggregates to produce a dark-black, durable, slip-resistant wearing surface to protect and extend the service life of deteriorated asphalt pavements.

Left untreated, asphalt pavement deteriorates rapidly. The asphalt binder, that holds the pavement aggregate matrix together, begins to oxidize and weather soon after installation. Initially, small aggregates are lost from the pavement matrix and eventually the larger aggregates are exposed and become loose or dislodged. The MTR-PLUS System is designed to replenish the binder and small aggregate that are lost through the aging process and provide a new, even-textured surface and renewed protection against environmental distress.

The MTR-PLUS System is an ideal choice to restore a like-new appearance and extend the service life of residential streets, secondary roads, parking areas, etc. MTR-PLUS may also be used to repair damaged surface

treatments (chip seals, slurry seals, etc.) making it ideal for vehicle, bicycle and pedestrian traffic and wherever value and performance are critical.

PREPARATION:

- Pavement surface must be clean and free from all loose and embedded material (dirt, etc.). If traditional cleaning methods are not effective, a prime coat of SS-1h (tack) diluted 3 parts water may be used. Clean and treat all oil spots and spills.
- Pavement surface repairs should be made prior to installation.
- Cracks (1/4"-1 1/2") should be sealed with hot-applied crack sealant.

MIX DESIGN:

- MTR-PLUS shall be mixed at the job site as per the following mix design (based on 100 gallons for ease of calculation):

MTR-PLUS	100 gals.
Water	20-25 gals.
Aggregate	200-500 lbs.

- Add aggregate into squeegee or spray tanks slowly with agitation to assure uniform mixture.

MATERIAL REQUIREMENTS AND APPLICATION RATE GUIDELINES:

Estimating the amount of MasterSeal MTR-PLUS concentrate and the corresponding

application rate of diluted MasterSeal MTR-PLUS are influenced by several factors including: pavement age, traffic counts, method of application, engineering specifications and property owner requirements. Two coats are recommended (allow first coat to dry before applying the second). Apply MasterSeal MTR-PLUS by spray, squeegee or brush.

Typically, the amount of MasterSeal MTR-PLUS concentrate required per coat is 70-90 square feet/gallon. The application rate per coat of diluted (25%) MasterSeal MTR-PLUS is .13-.16 gallons/square yard. Higher material requirements and application rates may be necessary on very distressed pavement or when one-coat applications are specified.

INSTALLATION OF MTR-PLUS SYSTEM:

- Ambient and surface temperatures must be 60°F and rising during application
- New asphalt surfaces should cure for 60 days prior to application
- Apply first coat of MTR-PLUS by mechanical spray or squeegee machine. Apply final coat by spray (hand wand or spray bar) or squeegee. Application equipment shall have mechanical agitation to maintain uniform consistency of MTR-PLUS mixture throughout the application process.

CAUTION: KEEP OUT OF REACH OF CHILDREN. Do not take internally. If swallowed, call a physician immediately. In case of contact with eyes, flush immediately with water for 15 minutes and call a physician. When not in use, keep containers tightly closed and upright to prevent leakage.

WARRANTY: The statements made on this technical bulletin are believed to be true and accurate, and are intended to provide a guide for approved construction practices. SealMaster® does not make, nor does it authorize any agent or representative to make any warranty, express or implied, concerning this material as workmanship, weather, construction, equipment utilized and other variables affecting results are all beyond our control. SealMaster® warrants only that the material conforms to product specifications and any liability to the buyer or user of this product is limited to the replacement value of the product only. In no event shall SealMaster® be liable for any injury, loss or damage, either direct or incidental, special or consequential, however arising, in connection with material or equipment furnished or work performed. SealMaster® shall not, in any manner, be liable for any defects, variations or change in condition in the substructure over which its products are installed.

MASTERSEAL MTR-PLUS- STANDARDS & PRODUCT TEST DATA: (1.)
 Classification: Tire Rubber AND Polymer Modified Asphalt Emulsion Sealcoat Concentrate

PROPERTY	TEST METHOD	STANDARDS (2.)	TEST DATA
Dried film color	Visual	Black	Black
Weight/Gallon	ASTM D 244	9 lbs. Min.	10 lbs. Min.
Residue by Evaporation, % (3.)	ASTM D 2939.08	50% Min.	55% Min.
Non-Volatiles Soluble in Trichloroethylene, %	ASTM D 4	10-35%	>40%
Cone Penetration	ASTM D 217	340-700	>350
Wet Track Abrasion, gram loss (4.)	ISSA (TB-100)	<5 gm. loss	<5 gm.
Accelerated Weathering Test (5.)	ASTM G 154	PASS	PASS (1,000 hrs.)
Aggregate Content (6.)	Mfg. Controls		3-4 lbs./gallon
Polymer Content	Mfg. Controls		2% by volume

ASPHALT CEMENT:
 Classification: Terminal Blended Ground Whole Scrap Tire Rubber Modified Asphalt Cement

PROPERTY	TEST METHOD	RESULTS
Tire Rubber Content	Terminal Certification	10% Min.
Penetration 77°, 100g, 5 sec, dmm	ASTM D 36	15-35 PEN.
Solubility %	ASTM D 2042	98.5% Min.

- 1.) Tests are conducted annually by independent certified laboratories.
- 2.) Reference ASTM, ASMA and SealMaster® specifications for asphalt emulsion sealcoats.
- 3.) Residue by Evaporation of 25% diluted concentrate...40% Min.
- 4.) Adapted for sealcoat from ISSA (Slurry Seal) test. Calculated weight loss percentage after one hour water soak.
- 5.) No cracking, chipping, surface distortion or loss of adhesion. No color fading or lightening.
- 6.) Additional aggregate may be added on the job site to the diluted concentrate to achieve the desired results (see Mix Design above). 60 mesh silica sand or Sharp Shot 30/60 are recommended.



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 Friendly & Safe
 Contains No
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 or Coal Tar.

