



STAR MICRO-PAVE DILUTION, SAND & ADDITIVE

DILUTION REQUIREMENTS

MICRO-PAVE may be diluted up to 20% by volume depending upon the application parameters and specifications. The typical dilution rate is 10-15% by volume with water for most squeegee and spray application. The dilution rate is calculated on the volume of the concentrated (bulk) MICRO-PAVE i.e. for 100 gallons of MICRO-PAVE (bulk) and 10-15 gallons of clean water.

In all cases water must be added to the bulk, not the other way around. If the water is placed in the mixer first and bulk added later, the initial quantity of MICRO-PAVE added will be over diluted destroying the emulsion with the potential of causing tracking problems and/or 'sticky' surface.

SAND LOADINGS

MICRO-PAVE is designed to support 4 to 6 pounds of sand per gallon of MICRO-PAVE in combination with water and MICRO-LOCK, specialty additive. The typical sand loading will vary with pavement surface condition, desired traction and number of coats. On extremely rough surfaces, it may be desirable to use upto 6 pounds of sand to fill surface profile. If a pavement slopes excessively, sand may be added to increase traction.

The two types of aggregates available for sealcoating are Black Beauty and silica sand. Both types may be used in MICRO-PAVE. The ideal sand for MICRO-PAVE is 40-60 mesh sand and the ideal sand loading is 2-3 pounds per gallon in the first coat and 0-2 pounds in the second coat. These sand loadings are based on the quantity of MICRO-PAVE (bulk), without any additive but it is advisable to use 1% of MICRO-LOCK as it will impart better sand distribution and overall durability.

ADDITIVE

Our specialty additive, MICRO-LOCK has been specifically developed for asphalt emulsion sealers to enhance the overall performance and support large quantities of sand.

MICRO-LOCK must be diluted with an equal volume of clean water by adding water to MICRO-LOCK, not the other way around. If you add MICRO-LOCK to water, it may be destabilized.

If you exceed 4 pounds of silica or 3 pounds of Black Beauty sand per gallon, you should increase the quantity of MICRO-LOCK to 2% for best results. Be sure to dilute the MICRO-LOCK 9 to 1 with water before adding it to the diluted MICRO-PAVE.



Two Simple Methods to Evaluate Proper Temperatures for Asphalt Emulsion Based Coatings

The Rule of "65"

This is the best and most accurate method to determine if the current and anticipated temperatures will be adequate to properly cure the coating. Using 65 degrees as a benchmark, you can say that any number of degrees above 65 during daylight application will allow you to drop that many degrees below 65 in the evening cure cycle.

For example, if you have 80 degrees day (i.e. 15 degrees over 65), you can tolerate 50 degrees (i.e. 15 degrees below 65) at night. Similarly, an 85 degree day will allow a tolerance of 45 degrees that night, though this may be unusual and probably stretching the point a bit.

In very rare circumstances, there might be some mitigating conditions (such as extremely low humidity or a drying wind) that will allow the coating to cure better than anticipated and allow a lower evening temperature.

The Rule of "10"

Though this is not as completely reliable, it is a quick guide for those who more easily think in terms of refined tar application. Basically, you just determine what the projected temperatures are for the coming day and night, subtract 10 and ask yourself if refined tar would be applicable given these adjusted temperatures. If not, then asphalt based coatings should not be applied that day.

For example, if the projected daytime high is 70 and the overnight low is 45 (a typically good day for refined tar), you should subtract 10 and you will have adjusted 60 degrees daytime and an overnight of 35. Most of us would not consider this optimum for refined tar and hence, the 70 day and 45 night would not be a good day for asphalt emulsion.

This may not seem easier to calculate, but with a couple days of practice it will. Keep in mind that a 60 degree day followed by a 35 degree overnight might work marginally well for refined tar and therefore a 70 degree day with 45 overnight might work for asphalt coatings too, but there is no such thing as marginal in asphalt emulsions. If it fails, 9 out of 10 times, it will be a total loss of the coating.



ASPHALT EMULSION BASED SEALERS

General Comments

Pros:

- ◆ Non Toxic
- ◆ Wears well on high speed surfaces e.g. ring roads
- ◆ Blacker initial color
- ◆ Low odor after drying
- ◆ Better performance on recreational surfaces
- ◆ Allows better adhesion for subsequent overlays
- ◆ Bonds well with concrete

Cons:

- ◆ Requires better drying condition (temperature/precip.)
- ◆ Prone to tire marking for extended periods
- ◆ Fades to medium gray color
- ◆ Strict control of dilution is required
- ◆ Lower average coverage rate
- ◆ Imperative to 2- coat
- ◆ Coating Life is not as good as refined tar sealers
- ◆ More susceptible to gas and oil degradation