

SPECIALTY CONSTRUCTION PRODUCTS

Duraguard HM Sealer Application

Equipment: screw driver to open containers, drill with Jiffler blade mixer, squeegee's, natural bristle brooms, long handle paint rollers, extra roller sleeves, sand or fertilizer spreader optional but recommended. Having extra or backups of this equipment is recommended.

General: Material should be stored in a cool dry place out of direct sunlight in temperatures <75°F (24°C) until 5 hours prior to use. The <u>Duraguard HM Sealer</u> must not be mixed until all material can be immediately placed on a prepared surface. The entire one gallon of Part B must be added to entire three gallons of Part A. The combined materials must be immediately mixed without altering the 3:1 ratio of the two components. The two components must be mixed two to three minutes and immediately poured on the prepared surface. The material should be immediately distributed using squeegee's allowing the material to penetrate the surface. Push brooms can be used to remove material from tined or grooved surfaces. After material has been distributed sand should be broadcast (using broadcast spreader) for skid resistance and back rolled without delay using paint rollers to encapsulate the sand.

This guideline for extreme heat can be used as a guide for all temperatures. <u>Duraguard HM</u>
<u>Sealer</u> can be installed at temperatures of 100°F (38°C) and surface temperatures of 140°F (60°C). The critical components of high temperature installations are to keep material as cool as possible, do not allow combined components to remain in mass, materials must be distributed without delay. The work should be planned and equipment distributed so that any mixed material can be installed immediately.

Prior to resin application insure that the surface to be treated is visibly dry with a temperature between 50°F (10°C) and 140°F (60°C). Do not apply the resin within 24 hours after a rain, during rain, when rain is forecast within 12 hours or when the ambient air temperature is below 50°F (10°C).

Surface Preparation: First remove roadway dirt and debris from the area to be treated. Sweep surfaces to which the sealer is to be applied, then manual or power broom swept and blown with oil free compressed air so that they are dry and free of dust and dirt. Use high pressure oil free compressed air to blow all loose material from visible cracks. Fit the cleaning equipment with suitable traps, filters, drip pans, dryers and other devices to prevent oil and other foreign material from being

deposited on the surface. Do not allow traffic on the clean surfaces prior to application of the sealer.

Mixing: Duraguard HM Sealer is a two component epoxy and must be mixed prior to use. For optimum results, before blending, condition material between 60°F (15°C) to 75°F (24°C). Mix a complete 4-gallon unit, pour all of the Part B Hardener into the Part A Resin. Carefully scrape the bottom and sides of Part B container to insure all material is used. Mix thoroughly for 2-3 minutes using a low speed mechanical drill and jiffler type mixing prop. Avoid incorporating air into the mixture.

Application: Pre-mark the deck to control mixed material usage and to provide a rate of application of approximately 100-150 square feet per gallon (2.45m²/L-3.68m²/L)DOT specifications supersede these rates. Flood the area to be sealed with resin. Allow the resin to penetrate into the concrete and fill all cracks. Mix the resin to a limit of 5 gallons (19L) at a time for manual application. Reject resin with a significant increase in viscosity. Redistribute excess material by a squeegee within 5 minutes after application. Front and back movement with the squeegee is recommended over cracks and patch perimeters to enhance penetration. Take all steps necessary to prevent the resin from flowing into lanes open to traffic. Broadcast sand over the entire sealed area of the bridge deck to a coverage of about 0.80 to 1.2 pounds per square yard (0.43 kg/m² to 0.65 kg/m²) and back roll to encapsulate. Best 1020 sand from Fairmont minerals meets this grading.

SIEVE SIZE	% PASSING MAX.
No. 4 (4.5mm)	100
No. 8 (2.36mm)	90 - 100
No. 20 (850µm)	5 -15
No. 50 (300µm)	0 - 5

Protect the treatment from moisture for not less than 6 hours after placement.

Traffic: Do not permit traffic on the treated deck until the resin is tack free and the sand cover adheres sufficiently to resist brushing off by hand.