



## 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 temperatures < 75°F or (24°C) until 5 hours prior to use. Material should be stored out of direct sunlight until 5 minutes prior to use. The [Duraguard HM Sealer](#) 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 for skid resistance (recommended) and back rolled with paint rollers to encapsulate the sand without delay.

This guideline for extreme heat can be used as a guide for all temperatures. [Duraguard HM Sealer](#) can be installed at temperatures of 100°F or (38°C) and surface temperatures of 140°F or (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 40 °F (4 °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 40 °F (4 °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 compressed air so that they are dry and free of dust and dirt. Use high pressure 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

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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, condition components to a minimum 60°F (15°C) prior to blending. If mixing 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. When mixing less than a full unit, accurate measurement of the components is critical. Maintain a 3:1, Part A to Part B ratio by volume. 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 (2.45m<sup>2</sup>/L-3.68m<sup>2</sup>/L). 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 (191) 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/m<sup>2</sup> to 0.65 kg/m<sup>2</sup>).

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, a minimum of 6 hours has elapsed since treatment, and the sand cover adheres sufficiently to resist brushing off by hand.