

Using ZERO-VOC in Immersion Service



- 1 Determine ZERO VOC ZRC's compatibility with the immersion liquid.
- 2 If compatibility is acceptable, sandblast surface to a White Blast Quality according to SSPCSP-5.
- 3 Immediately apply one coat of freshly mixed ZERO VOC ZRC at 5 - 6 wet mils, giving a dry film thickness of 2.5 - 3.0 dry mils. Leave for 24 hours before applying a second freshly mixed coat of ZERO VOC ZRC at the same film thickness. Do not exceed 6 dry mils. Do not attempt to apply a second application of the product mixed on the previous day.

PLEASE NOTE: HIGH HUMIDITY, COLD AND DAMP CONDITIONS MAY CHANGE THE TIME REQUIREMENTS FOR FULL CURE.

- 4 Allow fully coated surface to dry/cure for 14 days at 77°F (25°C) prior to subjecting film to immersion service.

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Film formation of ZERO VOC ZRC is complex and involves several steps. As the water evaporates from the wet film, the film coalesces, concentrating zinc and binder together. During this period the inorganic silicate is first hydrolyzed to a silicic acid polymer which reacts with zinc ions on the surface of the zinc powder to form a complex open interpenetrating network of zinc silicate and alkali resistant high molecular weight ester based polymer. This film decreases in porosity as it further reacts with the environment, which hardens the film completely. This reaction may take several days although corrosive electrolytes, such as salt water, which stimulate the formation of the zinc corrosion products within the film, may increase the rate of this conversion to the fully resistant film.

- 5 In very severe environments (specifically chemical spills, splashes, or immersion where pH is < 6.5 and > 10.5) ZERO VOC ZRC must be topcoated with materials suited to that particular application to avoid zinc depletion. Please refer to [ZRC's Guide to Topcoating](#) for further information.

Please call our toll-free number 1-800-831-3275 to speak with a technical representative or visit our store to place an order

