

# SCProbond™ WRC

Wear Resistant Compound

Description:	SCProbond™ WRC Compound is a trowel-on, two-component, silicon carbide filled epoxy system specifically designed to resist abrasive wear and corrosion. This product can be mixed on site and applied to badly worn areas creating a barrier of silicon carbide grains between equipment surfaces and abrasive material flow. WRC adheres easily to most metals and cast silicon carbide substrates found in harsh processing environments	
Ordering Information:	SCProbond™ WRC 2 lb. Kit SCProbond™ WRC 25 lb. Kit	
Product Advantages:	SCProbond™ WRC Compound is designed to use in pump casings, slurry lines, pipe elbows, pneumatic transport systems, chutes, cyclones, fans, coal breakers, pulverizers, coal heads, and other high wear areas.	
Application Guidelines:	MAXIMUM SERVICE TEMP 300°F WORKING TIME 30 minutes FUNCTIONAL CURE 7 Hours MIX RATIO 2/1 by Volume (2/1 by weight)	
Coverage:	Coverage per pound is 25in <sup>2</sup> (161cm <sup>2</sup> ) at 0.5 (1.27cm) thickness. The working time of SCProbond™ WRC Compound (the time you have to apply the materials before it sets) will vary according to air temperature, the temperature of the material itself, and the surface to which it is applied.	
Physical Properties:	Tests Conducted	
	TENSILE STRENGTH	3,050 psi ASTM D 638
	COMPRESSIVE STRENGTH	14,000 psi ASTM D 695
	HARDNESS, Shore D	90D ASTM D 2240



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- Surface Preparation:** The surface to be coated must be free of all rust, scale, dirt, dust, grease, oil, release agents, or other contaminants. Preheat the surface to 100 °F or 38 °C (this will drive off any moisture). For smooth surfaces or where vibration is a concern, tack weld an open mesh screen or expanded metal approximately 1/16 to 1/8 in. (1.6-3.2 mm) above the surface. Chip off weld slag.
- Measuring:** **SCProbond™ WRC Compound 2/1 kits are supplied with the resin and hardener pre-measured in the correct mixing ratio. It is best to empty the entire contents of both the resin and hardener containers on a mixing board to insure the proper mixing ratio is maintained. If less than a full kit is required for the job, both the resin and hardener must be accurately measured out. DO NOT ATTEMPT TO "EYEBALL" THE AMOUNT NEEDED. Use a scale to weigh out each component or use measuring cups to portion by volume. Adding more or less hardener will only degrade the physical properties.**
- If the kit is colder than 60F (15.5C), preheat both the resin and hardener by placing the cans in a hot water bath. The water temperature should not exceed 90F (32.2C) as higher heat will reduce the working time of the mix. Heating of the cans with a torch is NOT recommended.
- Mixing:** **After the components have been measured on a clean, flat mixing board, mix thoroughly with a trowel until a uniform color is achieved, (usually about 2 minutes)**
- For mixing the largest kits, a mixing paddle and heavy duty, slow speed drill may be used. However, the mechanical energy put into the mix by the drill may result in a shortened working time and a reduction of the non-sag characteristics of the SCProbond™ WRC Compound. Remember, incomplete mixing will result in poor curing, loss of physical properties, and "soft spots".
- Application:** Initially apply a thin, wet coat to the surface to create tack. Build upon the tack coat to the desired thickness. If a screen or expanded metal is used for reinforcement, apply an excess of material at one end of the area and push it through the screen. Push the material so that it "wets" the surface below the screen and moves in a continuous mass toward the other end of the area.
- Curing:** Cure at least 7 hours at 77 °F (25 °C) before returning equipment to service. For maximum physical properties cure 4 hours at 200 °F (93.3 °C) after curing 2 hours at 72 °F (22 °C).

### SAFETY PRECAUTIONS

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymers, sanding) may cause high vapor concentrations. **DO NOT WELD, BURN, OR TORCH ON OR NEAR ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED.**

Avoid skin or eye contact. Wash skin with soap and water if contact occurs. If eye contact occurs flush with water for 15 minutes and obtain medical attention. Read and understand all cautions on can labels and safety data sheets before using this material.

### WARRANTY AND DISCLAIMER

Silicon Carbide Products, LLC. gives no warranty, express or implied, and all products are sold upon condition that purchasers will make their own tests to determine the quality and suitability of the product. Silicon Carbide Products, LLC. shall be in no way responsible for the improper use and service of the product. The information given in this publication is considered to be accurate and reliable and is provided as a service only. Physical properties shown are typical. Actual properties are dependent on curing conditions and degree of cure. Any information or suggestions given are without warranty of any kind and purchasers are solely responsible for any loss arising from the use of such information or suggestions. No information or suggestions given by us shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. **TB# (03/17/21)**



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