Application Instructions: ARC S1PW HB

Surface Preparation

Proper surface preparation is important for the long-term performance of this system.

Metallic surfaces shall be cleaned of all contaminants and grit blasted to a minimum of Near White Metal cleanliness (SA 2-1/2, SSPC-SP10) with a corresponding rough angular profile of 75 – 125 microns (3 – 5 mils). Prior to application all blast residue shall be removed from the surface to be coated.

Newly placed cementitious surfaces must be cured for a minimum of 28 days. Once cured remove all grease, oils, and grime by washing with an emulsifying alkaline water based cleaner. All surface contaminants including old coatings, chemical salts, dust, loose concrete, and the laitance layer must be removed. This is best accomplished by hydro-blasting, steel shot-blasting, scarifying, or dry abrasive blasting to an ICRI Grade 4 or 60 grit sandpaper equivalent (or rougher) profile. The resulting surface must be structurally sound and free of all contaminants. Prior to application, all residues shall be removed from the surface to be coated. Surface dampness is acceptable; standing water is not.

Excessive form holes and exposed aggregate may require a rebuild coating to rough level the surface prior to finish coating.

Mixing

To facilitate mixing and application by manual methods material temperatures should be between 21°C – 32°C (70°F – 90°F). Each kit is packaged to the proper mix ratio. If further proportioning is required, the kit should be divided to the correct mix ratio:

Mix Ratio	By Weight	By Bolume
A : B	3.0 : 1	2.0 : 1

Mix until product is uniform in color and consistency with no streaks. Power mixing should be accomplished with a variable speed, high torque, low speed mixer with a non-air entraining mix blade such as a "Jiffy" blade. Do not mix more product than can be applied within the stated working time.

Working Time

60 liter and 600 liter kits are designed to be applied by plural component spray systems and will only be mixed at the static mixer. At spray application temperatures 45°C – 50°C (115°F – 122°F) the material in the whip line downstream of the static mixer has a pot life of 8 – 12 minutes. When mixed by hand for touch-up by brush pot life for a 1 liter mix is 30 min. at 25°C/77°F, at 15°C/60°F pot life is 40 min, at 32°C/90˚F pot life is 15 min.

Application

ARC S1PW HB may be applied by using a heated plural component spray system without solvent dilution or by brush (touchup). When applying ARC S1PW HB by brush, the following conditions should be observed:

- Film thickness range per coat 1 – 2 mm (40 – 80 mils)
- Application temperature range 10°C – 40°C (50°F – 104°F) (substrate temperature)
- A maximum of three coats may be applied when requiring certification to NSF Standard 61

Please consult the ARC Technical Bulletin 6 for heated plural component spray equipment specifications and recommendations.

When spraying ARC S1PW HB, apply initial pass at 250 – 375 microns (10 – 15 mils). Build successive passes to achieve final desired thickness of 1 – 2 mm (40 – 80 mils). Single coat coating thicknesses of up to 3 mm (120 mils) may be achieved. Vertical or overhead applications may yield reduced film thickness. To compensate, additional coats may be required. Rough surfaces typically will require multiple coats of 1 – 2 mm (40 – 80 mils) to achieve uniform coverage.

Multiple coat applications of ARC S1PW HB may be accomplished, without additional surface preparation, if the film is free of contamination and has not cured beyond the stage stated as Overcoat End in the Curing Schedule chart below. If this period is exceeded, light abrasive blasting or sanding is required to be followed by a solvent wash to remove any abrasive residues.

Curing Schedule

	10°C (50°F)	25°C (77°F)	32°C (90°F)	43°C (110°F)
Tack Free	10 hrs.	6 hrs.	4 hrs.	1.5 hrs
Light Load	36 hrs.	18 hrs.	12 hrs.	7 hrs
Overcoat End	44 hrs.	30 hrs.	24 hrs.	14 hrs
Full Load	72 hrs.	36 hrs.	26 hrs.	21 hrs
Full Chemical	240 hrs.	168 hrs.	120 hrs.	44 hrs

Force curing at 65°C (150°F) after material has reached tack free will accelerate cure time to 4 hours plus tack free time.

Clean Up

When heated for plural component spray application ARC S1PW HB cures to a solid mass in a very short time period. All cleanup activities must be carried out as soon as possible to prevent material hardening onto the tools. Use commercial solvents (acetone, xylene, alcohol, methyl ethyl ketone) to clean tools immediately after use. Once cured the material would have to be abraded off.

Storage

Store between 10°C (50°F) and 32°C (90°F). Excursions beyond this range that may occur during shipping are acceptable. The shelf life is two years in unopened containers. Settling and reinforcement separation may occur over time or at elevated storage temperatures. Reconstitute prior to use by mixing individual components before mixing Part A with Part B.

Safety

Before using any product, review the appropriate Safety Data Sheet (SDS) or Safety Sheet for your area. Follow standard confined space and entry work procedures, if appropriate.

A.W. Chesterton Company • 860 Salem Street, Groveland, MA 01834 USA

Application condition may influence the outcome of the coating. For specific guidance concerning local condition for surface preparation, please contact ARC Application Engineering at (781) 438-7000.

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