

## Surface Preparation

Proper surface preparation is critical to the long term performance of ARC S3. The exact requirements vary with the severity of the application, expected service life, and initial substrate conditions.

All sharp edges and welds shall be ground smooth or to a 3 mm (0.125 inch) radius before abrasive blasting. Optimum preparation will provide a surface thoroughly cleaned of all contaminants and roughened to an angular profile between 75 – 125 µm (3 – 5 mil). This is normally achieved by initial cleaning and degreasing and then abrasive blasting to a cleanliness of **White Metal (Sa 3/SP5) or Near-White Metal (Sa 2.5/SP10)** followed by removal of all abrasive residues.

## Mixing

To facilitate mixing and application, material temperature should be between 21°C – 32°C (70°F – 90°F). Each kit contains two pre-measured components in proportion as per the correct product mix ratio. If further proportioning is required, they should be divided according to the mix ratios:

Mix Ratio	By Weight	By Volume
A : B	6.6 : 1	4 : 1

Prior to mixing ARC S3 pre-mix Part A and Part B to re-disperse any settled components. When mixing by hand, add Part B to Part A and mix until product is uniform in color and consistency, with no streaks. Power mixing should be accomplished with a variable speed mixer fitted 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 – Minutes

	50°F (10°C)	60°F (15°C)	75°F (24°C)	95°F (35°C)	This chart defines the practical working time of ARC S3, starting from when mixing begins.
5 liter	50 min.	40 min.	30 min.	20 min.	
16 liter	30 min	25 min	20 min	14 min	

## Application

ARC S3 may be applied by spray system, brush, or roller using a lint free short nap roller such as mohair. When applying ARC S3 the following conditions should be observed: Film thickness range per coat should be from: 250 µm (10 mil) – 375 µm (15 mil). ARC S3 is normally applied in a minimum of two coats in alternate colors. Application temperature range should be between 10°C (50°F) – 38°C (100°F). ARC S3 may be spray applied by plural component airless spray equipment without solvent dilution; consult ARC Technical Bulletin 006 for equipment guidelines. If using 940 ml cartridge preheat cartridge to 50°C (120°F) prior to inserting in SULZER MIXPAC® gun. Adjust atomizing and feed air as required to achieve desired spray pattern.

When spraying, apply initial pass at 75 – 125 µm (3 – 5 mil). Build successive passes to achieve the first coat recommended thickness. Vertical or overhead applications may result in reduced film thickness. To compensate additional coats may be required.

## Coverage

Thickness	Unit size	Coverage
375 µm (15 mil)	940 ml	2.50 m <sup>2</sup> (27.0 ft <sup>2</sup> )
375 µm (15 mil)	5 liters	13.33 m <sup>2</sup> (143.52 ft <sup>2</sup> )
375 µm (15 mil)	16 liters	42.67 m <sup>2</sup> (459.26 ft <sup>2</sup> )

## Curing Schedule

	50°F (10°C)	60°F (15°C)	75°F (24°C)	90°F (35°C)	<b>Note:</b> Full mechanical properties can be achieved rapidly by force curing. To force cure, first allow the material to become tack free, and then heat 70°C (158°F) for 6 hours.
Tack Free	10 hrs.	7 hrs.	4 hrs.	3 hrs.	
Overcoat Open	20 hrs.	14 hrs.	8 hrs.	6 hrs.	
Overcoat End	30 hrs.	25 hrs.	16 hrs.	14 hrs.	
Mechanical Cure	72 hrs.	48 hrs.	36 hrs.	20 hrs.	
Immersion Cure	96 hrs.	72 hrs.	48 hrs.	30 hrs.	
Full Chemical	240 hrs.	210 hrs.	168 hrs.	120 hrs.	

## Clean Up

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.

## Safety

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

**Shelf life (in unopened containers): 2 years when stored between 10°C (50°F) and 32°C (90°F)**

MIXPAC® is a registered trademark of Sulzer Mixpac.