

Surface Preparation, Mixing and Application Instructions

General Instructions:

- Proper surface preparation is critically important for the long term performance of the ARC CS2(E) system.
- The prepared concrete surface must be structurally sound, with contaminants thoroughly removed. Surface dampness is acceptable; standing water is not. For slab on grade applications, a vapor barrier is recommended.
- If no vapor barrier is present, check for vapor transmission.
- For detailed information on surface preparation and application, please refer to ARC Application Procedures for Concrete or contact your ARC specialist.

Surface Cleaning & Profiling Methods:

Hydro-blasting	Scarifying	Grinding
Steel Shot-blasting	Dry abrasive blasting	

Specific to Old Concrete:

- Remove all surface contaminants thoroughly, including:

Old Coatings	Dust	Laitance
Soluble Salts	Loose Concrete	Hydrophobic Contaminants

- Remove grease, oils, and grime by washing the concrete surface with an emulsifying alkaline, water-base cleaner; rinse thoroughly.
- Employ one or more of the Surface Cleaning Methods listed above.

Specific to New Concrete:

- Allow a minimum of 28-day cure of new concrete before preparation.
- Employ one or more of the Surface Cleaning Methods listed above.

ARC CS2(E): Mixing

To facilitate mixing and application, 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 according to the correct mix ratio.

Mix Ratio	By Weight	Volume
A : B	4.0 : 1	3.0 : 1

Prior to mixing ARC CS2(E), pre-mix Part A to suspend any settled reinforcements.

- When mixing by hand, add Part B to Part A. Continue to mix product 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.

ARC CS2(E): Application

- ARC CS2(E) may be applied by notched squeegee, airless spray system, brush, or roller using a lint free short nap roller such as mohair.
- When applying ARC CS2(E) the following conditions should be observed: Film thickness range per coat 250 µm (10 mil) - 375 µm (15 mil)
- Application temperature range 10°C (50°F) - 35°C (100°F) (substrate)

- For maximum protection against immersion or spills, a minimum 2 coat system is recommended.
- ARC CS2(E) may be spray applied by airless spray equipment without solvent dilution. Please consult your local ARC specialist for equipment specifications and recommendations.
- Apply initial pass at 75 -125 µm (3-5 mils). Build successive passes to achieve final first coat desired thickness. Vertical or overhead applications will result in reduced film thickness. To compensate additional coats are recommended.
- Multiple coat applications of ARC CS2(E) may be accomplished, without additional surface preparation, as long as the film is free of contamination and has not cured beyond the stage stated as Light Load in the Curing Schedule chart below. If this period is exceeded, light abrasive blasting or sanding is required followed by removal of abrasive residues. Prior to its light load cure state, ARC CS2(E) may be overcoated with any of the ARC epoxy materials with the exception of ARC vinyl ester based coatings.

Coverage/Spreading

Thickness	Unit size	Coverage
500 µm (20 mil)	16 liter	32.00 m ² (344.45 ft ²)

Working Time-Minutes

	10°C	16°C	25°C	32°C
	50°F	60°F	77°F	90°F
16 Liter	45 min.	35 min.	20 min	15 min.

'Working Time' begins when mixing is initiated.

The minimum application temperature is 10°C (50°F), although application will be easier at 25°C (77°F).

Curing Schedule

	10°C	16°C	25°C	32°C
	50°F	60°F	77°F	90°F
Foot Traffic	16 hrs.	12 hrs.	10 hrs.	6 hrs.
Light Load	36 hrs.	24 hrs.	16 hrs.	9 hrs.
Full Load	64 hrs.	40 hrs.	30 hrs.	20 hrs.
Full Chemical	180 hrs.	140 hrs.	100 hrs.	80 hrs.

Force curing at 65°C (150°F) after material has reached Foot Traffic will accelerate cure time to 8 hours plus Foot Traffic time.

Clean Up

ARC CS2(E) cures to a solid mass in a very short period of time. All clean-up 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 which 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 products, review the appropriate Safety Data Sheet (SDS) or Safety Sheet for your area.

Follow standard confined space and entry work procedures, if appropriate.