

Surface Preparation

Proper surface preparation is critically important for the long-term performance of ARC EG-1 FC.

The prepared concrete surface must be structurally sound, with contaminants thoroughly removed and roughened to > an ICRI CSP 3 profile (similar to #60 grit sandpaper finish). With ARC EG-1 FC concrete repair mortar, the surface may be damp, but not wet i.e. no free-standing water.

A vapor barrier is recommended for slab-on-grade applications. If no vapor barrier is present, it is essential to check for vapor transmission.

Surface Cleaning and Profiling Methods

| Hydro-blasting | Scarifying | Scabbling |
|---------------------|-----------------------|-----------|
| Steel shot-blasting | Dry abrasive blasting | Grinding |

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-based 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.

Review **ARC Procedural Guide for Concrete** for additional information (Web Page / Resource Center).

Mixing

ARC EG-1 FC material should be brought up to a minimum temperature of 10°C (50°F) prior to mixing.

The components of ARC EG-1 FC concrete repair mortar are pre-measured as per the mix ratios below:

Add Part-B to Part-A, then slowly add Part-C aggregate, mix until uniform in color and consistency.

Mix Ratio – 1.9 gallon unit – Mix with (3) 35 lb bags of silica sand blend
0.63 gallon unit – Mix with (1) 35 lb bag of silica sand blend

Working Time-Minutes

| | 4 °C (40 °F) | 25 °C (77 °F) | 40 °C (104 °F) |
|-------------|--------------|---------------|----------------|
| ARC EG-1 FC | >120 min | 30 min | 10 min |

'Working Time' begins when mixing is initiated.

Application

- Square cut the perimeter of the area to be patched to a depth that prevents feathered edges.
- Chip unsound concrete within the repair area until reaching sound concrete.
- Apply ARC EG-1 FC to the desired film, thickness using a trowel, onto the prepared concrete surface.

To reduce the chance of vapor outgassing/blistering, ARC EG-1 FC should not be installed while the concrete's temperature is rising. In outdoor applications, it is best to install in the evening or at night to avoid this problem.

Coverage/Spreading

| Thickness | Unit size | Coverage |
|---------------|--------------------------------------|---|
| 12 mm (½ in.) | 7.2 liter (1.9 gallon) 3 bag mix | 2.25 m ² (24.2 ft ²) |
| | 2.4 liter (0.63 gallon) 1 bag mix | 0.75 m ² (8.1 ft ²) |

Before reaching its light load state, ARC EG-1 FC may be overcoated with any of the ARC epoxy materials. ARC NVE VC may be applied onto ARC EG-1 FC following a minimum 24-hour cure at 20°C (70°F). For additional information please contact ARC Technical Services.

Curing Schedule

| | 4 °C (40 °F) | 25 °C (77 °F) | 40 °C (104 °F) |
|--------------|--------------|---------------|----------------|
| Foot Traffic | 16 hrs | 3 hrs | 20 min |
| Light Load | – | 6 hrs | 30 min |
| Full Load | 168 hrs | 6 hrs | – |

Clean Up

Use commercial solvents (Acetone, Xylene, Alcohol, and Methyl Ethyl Ketone) to clean tools immediately after use. Once cured, the material would have to be mechanically abraded.

Storage

The recommended storage temperature is between 10°C (50°F) and 32°C (90°F). Intermittent deviations from this range which may occur during shipping are acceptable as long as the material is pre-warmed to room temperature before use. The shelf life is two years in unopened containers. Mix each liquid component well before using.

Safety

Before using any products, always review the appropriate Safety Data Sheets (SDS) or appropriate 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) in dry, cool, covered facility]