Application Instructions: ARC NVE(E) VC

Surface Preparation, Mixing and Application Instructions

General Instructions

- Proper surface preparation is critically important for the long term performance of the ARC NVE(E) VC system.
- 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).
- A vapor barrier is required for slab-on-grade applications. If no vapor barrier is present, it is essential to 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	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-base cleaner; rinse thoroughly.
- Employ one or more of the Surface Cleaning and Profiling 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 NVE(E) VC System Kit

General Information

The ARC NVE(E) Veil Coat (NVE(E) VC) kit is comprised of the following:

- ARC NVE(E) Primer (PC) Part A
- ARC NVE(E) Veil Coat (VC) Part A
- ARC CHP(E) (catalyst)

ARC NVE(E) Primer (Mixing)

- Add the required amount of catalyst (ARC CHP(E)) to Part A (NVE(E) Primer) according to the following:

  Weight mix ratio (A:B) - 44:1

  Volume mix ratio (A:B) - 47:1

- If application temperatures are lower than 16°C (60°F) you can increase the amount of catalyst (ARC CHP(E)) by 10%
- If application temperatures are higher than 21 °C (70°F) the amount of ARC CHP(E) catalyst can be reduced by 10%
- Mix by hand or low speed power tool mixer
- Potlife or working time of mixed primer kit is 45 -55 minutes @ 25°C (77°F).

ARC NVE(E) Primer (Application)

- Apply the Primer uniformly to a wet film thickness of 125-175 µm (5-7 mil), using a brush, roller or spray to the freshly prepared concrete surface. Top coating with the NVE(E) Veil Coat may begin immediately.

ARC NVE(E) Veil Coat (Mixing)

- Add the required amount of catalyst (ARC CHP(E)) to Part A (NVE(E) Veil Coat) according to the following:

  Weight mix ratio (A:B) - 47:1

  Volume mix ratio (A:B) - 47:1

- If application temperatures are lower than 16°C (60°F) you can increase the amount of catalyst (ARC CHP(E)) by 10%
- If application temperatures are higher than 21 °C (70°F) the amount of ARC CHP(E) catalyst can be reduced by 10%
- Mix by hand or low speed power tool mixer
- Potlife or working time of mixed primer kit is 45 -55 minutes @ 25°C (77°F).

ARC NVE(E) Veil Coat (Application)

Apply the Veil Coat uniformly to a nominal wet film thickness of 250 µm (10 mil), using a brush, roller or spray to the primed concrete surface. To reduce the chance of vapor blistering or disbondment, the NVE(E) Veil Coat 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. Apply a second coat of ARC NVE(E) Veil Coat at a nominal 250 µm (10 mil) wet film according to the overcoat window in the table below.

- The minimum application temperature for ARC NVE(E) PC and NVE(E) VC is 10°C (50°F)
- Do not apply subsequent coats if exposed to direct sunlight for more than 4 hours
- A sweep blast of the exposed topcoat is required before continuing the application

Note: For application onto concrete where high moisture levels exist, please refer to ARC Technical Bulletin 16 available from ARC Technical Services.

NVE(E) Veil Coat Curing Schedule

	10°C 50°F	16°C 60°F	21°C 70°F	26°C 80°F
Overcoat Begin	3 hrs.	1.5 hrs.	1 hrs.	30 min
Foot Traffic	4 hrs.	2.5 hrs.	1.5 hrs.	1 hr.
Overcoat End	72 hrs.	60 hrs.	48 hrs.	24 hrs.
Full Load	8 hrs.	4 hrs.	2 hrs.	1 hrs.
Full Chemical	32 hrs.	28 hrs.	24 hrs.	16 hrs.

Coverage/Spreading

ARC NVE(E) Veil Coat System kit covers 9.60 m^2 (103.30 ft^2) @ 500 µm (20 mil) wet film thickness

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

Store all components in a cool (<25°C/77°F) area out of direct sunlight and away from sources of ignition or flame.

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.

Maintain transport temperature below 24°C (75°F). Shelf life (in unopened containers): 1 year [when transported and stored between 10°C (50°F) and 24°C (75°F)]

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Application condition may influence the outcome of the coating. For specific guidance concerning local condition for surface preparation, please contact ARC Application Engineering at +1 (781) 438-7000.

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