

General Instructions:

Surface Preparation, Mixing and Application Instructions

- Proper surface preparation is critically important for the long term performance of the ARC NVE 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 Procedure for Concrete, or contact your ARC specialist.

Surface Cleaning & Profiling Methods

Hydro-Blasting	Dry Abrasive Blasting	
Steel Shot-Blasting	Scarifying/Scabbling	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 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 General Information

The ARC NVE system kit is comprised of the following:

Quantity	Description
1	ARC NVE PC (Primer Resin Part A)
1	ARC NVE TC (Topcoat Resin Part A)
1	ARC NVE VC (Veil Coat Resin Part A)
2	ARC CHP (Catalyst Part B)
7	ARC QRV (Aggregate Part C)

The following tables describe the mix ratios, working times and overcoat times for the NVE system kit.

Coverage/Spreading Rate

	6 mm (240 mils)
Per 1 bag mix	1.35 m ² (14.6 ft ²)

Mix Ratios (1 bag mix)

NVE PC	Weight	Volume
Mix Ratio	44 : 1	47 ml : 1ml
Part A	0,32 kg (0.71 lbs)	0,30 L (0.08 gal)
Part B	7,14 g (0.26 oz)	6,36 ml (0.21 fl oz)
NVE TC	Weight	Volume
Mix Ratio	46 : 1 : 303	47.2 : 1 : 1 bag*
Part A	2,5 kg (5.54 lbs)	2,25 L (0.6 gal)
Part B	53,9 g (1.90 oz)	47,6 ml (1.6 fl oz)
Part C	1 bag	1 bag
NVE VC	Weight	Volume
Mix Ratio	47 : 1	47 : 1
Part A	0,76 kg (1.69 lbs)	0,67 L (0.18 gal)
Part B	16,1 g (0.57 oz)	14,3 ml (0.48 fl oz)

*It is not advisable to mix more than a 3 bag mix at one time. To mix 2 or 3 bag mixes multiply qty. for 1 bag mix by 2 or 3 respectively.

Working Times

	10°C (50°F)	16°C (60°F)	21°C (70°F)	32°C (90°F)
NVE PC	65 min	60 min	55 min	40 min
NVE TC	60 min	50 min	40 min	30 min
NVE VC	60 min	50 min	40 min	30 min

Overcoat Times

	10°C (50°F)	16°C (60°F)	21°C (70°F)	26°C (80°F)
NVE PC Start	Immediate	Immediate	Immediate	Immediate
NVE PC End	3 days	2 days	1 day	12 hrs.
NVE TC Start	Immediate	Immediate	Immediate	Immediate
NVE TC End	5 days	4.5 days	4 days	1 days
NVE VC Start	4 hrs.	3 hrs.	2 hrs.	1 hrs.
NVE VC End	4 days	3 days	2 days	1 day

Adequate ventilation is required with styrenated products, always consult MSDS before application. If application of NVE PC, TC or VC is in direct sunlight, overcoat times are reduced to maximum 4 hours. If this time is exceeded the surface must be sweep blasted and all dust removed before continuing the application.

NVE PC Mixing and Application

- Using mix ratio chart add required amount of ARC CHP (Part B) to ARC NVE PC (Part A) and mix until uniform consistency.
- Apply immediately to prepared concrete with brush or roller to a wet film thickness of 125-180 µm (5-7 mils). Porous concrete may require additional coats.

NVE TC Mixing and Application

- Add one third of desired amount of ARC QRV (Part C) to suitable mixing vessel, such as rotating drum/stationary blade mixer, or 100 liter open bucket if using hand mixer with paddle blade mixer.
- Using mix ratio chart add required amount of ARC CHP (Part B) to ARC NVE TC (Part A) and mix until uniform consistency.
- Add entire contents of mix into mixing vessel with 1/3rd Part C and mix until a uniform slurry mix is reached. Periodically scrape sides and bottom of mixer.
- Gradually add in balance of Part C and mix until uniform consistency is reached.
- Apply immediately to primed surfaces with a steel trowel or similar tool to a thickness of between 6-9 mm (240-360 mils). If applying to vertical surface allow primer to get "tacky" which should occur within 10-15 minutes. Close surface with rapid strokes using light pressure.
- Keep the trowel clean during application by wiping with a cloth soaked in MEK or acetone to achieve a smooth closed surface.

NVE VC Mixing and Application

- Wait the appropriate overcoat time as indicated in the Overcoat Time table under NVE VC Start before starting to apply the NVE Veil Coat.
- Using mix ratio chart add required amount of ARC CHP (Part B) to ARC NVE VC (Part A) and mix until uniform consistency.
- Apply using brush, roller or squeegee at a nominal wet film thickness of 250-375 µm (10-15 mils).

Curing Schedule

	10°C 50°F	15°C (60°F)	21°C (70°F)	32°C (90°F)
Foot Traffic	4 hrs.	2.5 hrs.	1.25 hrs.	45 min.
Light Load	6 hrs.	3 hrs.	1.75 hrs.	1 hr.
Full Load	8 hrs.	4 hrs.	3 hrs.	2 hrs.
Full Chemical	32 hrs.	28 hrs.	24 hrs.	16 hrs.

Clean Up

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

Safety

Before using any product, review the appropriate Material Safety Data Sheet (MSDS) or Safety Sheet for your area. Follow standard confined space and entry 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]