



# EpiMax 333AR



## High Build Acid Resistant Coating

### Description

EpiMax 333AR High Build Acid Resistant Coating is an exceptional two-pack solventless, novolac based coating system suitable for a variety of applications including acid-proofing of floors, walls, secondary containment structures and wastewater asset protection.

EpiMax 333AR provides high level chemical and mechanical protection for concrete, steel, and other prepared surfaces.

This system outperforms traditional epoxy coating systems due the fact that it is specially formulated with a unique polymeric novolac resin to fortify the coating matrix and promote cure to a very highly cross linked chemical structure. The other unique feature of this system is that it offers low viscosity and, therefore, easy application with good surface wetting. As a result, adhesion characteristics are excellent to all adequately prepared concrete and steel surfaces.

The system can be applied by roller or airless spray, but the application and ultimate performance of the system can be further modified by the inclusion of performance quartz aggregates and non-woven, continuous strand, glass surfacing veil.

The standard system cures quickly and this characteristic allows very fast return to service in a wide range of demanding industrial, mining and wastewater applications.

EpiMax 333AR has set the standard for more than a decade in high build film performance coatings in harsh environments on many critical projects. It is specified and installed to maximise project confidence in those demanding conditions where high durability levels are required from a field applied coating system.

EpiMax 333AR is ideal for various protection applications in the water industry and has been tested and approved to AS4020:2018.

Note that the system can display some tendency to darken in external applications.

EpiMax 333AR Type 2 is available for heavy duty applications. Contact your EpiMax representative for additional information.

### Advantages

- Fast application
- Excellent adhesion
- Good abrasion resistance
- Self-priming
- Excellent chemical resistance
- Can be spray applied
- Unique novolac chemistry
- Excellent mechanical performance



## Typical applications

- Wastewater facilities
- Healthcare facilities
- Chemical containment
- Paper manufacturing
- Battery recycling
- Water treatment facilities
- Resources processing and storage
- Meat processing
- Chemical production
- Animal care centres
- Food & beverage production
- Dairy production
- Battery recharge areas
- Port & marine terminal operations
- Effluent pits

## Typical properties

- Shelf life: 2 years
- Standard colours: N35 Light Grey, N44 Bridge Grey
- Work time, 16 L pack: 20 minutes at 25°C
- Light foot traffic: 12 - 24 hours at 25°C
- VOC Content: < 30 grams per litre
- Volume solids content: 100%
- Mix ratio: 3 Part A (Compound): 1 Part B (Hardener) by volume
- Recoating window: 8-16 hours at 23°C
- Full chemical cure time: 5 days at 25°C
- Coverage/16L pack-theoretical 95m<sup>2</sup>/coat @ 170 micron dft

## Chemical resistance

EpiMax 333AR is resistant to a wide range of chemicals. Specific data is available on request.

Typical resistance to spillages includes: (examples only)

- Ammonia solutions
- Sulphuric acid solutions
- Lactic acid solutions
- Skydrol
- Sodium hydroxide
- Inorganic salt solutions
- Hydrocarbon solvents
- Kerosene
- Diesel fuel
- Hydrochloric acid solutions
- Bleach solutions (may discolour)
- Vegetable oils

Surface staining may result from exposure to some aggressive chemicals. Seek EpiMax advice for specific applications.

## Abrasion resistance

Taber Abraser Performance

CS 17 wheels 1000 gm load

Weight loss/1000 cycles: 97 mg loss

## Estimating data

16 ltr EpiMax 333AR High Build Epoxy Coating = 40m<sup>2</sup> (2 x 200 micron dft)

## Surface preparation

Concrete should be at least 28 days old. Ensure it is free of all contaminants, additives, curing agents, oils, pre-existing coatings etc and is also alkaline in nature. Prepare as necessary by industry approved methods like abrasive blasting etc, as applicable, to expose firmly held aggregate to minimum CSP3 Standard. Vacuum all dust and debris. Allow to dry if wet.

Prepare steel surfaces in accordance with the AS 1627 series.

Always confirm preparation adequacy.

## Temperature and re-coat window considerations

	Minimum	Maximum	Notes
Pre-conditioning temperature	20°C	25°C	Pre-conditioning times will vary depending on the product starting temperature
Substrate temperature	15°C	27.5°C	Substrate temperature should be at least 3 Celsius degrees above the prevailing Dew Point
Application ambient temperature	15°C	30°C	Ambient temperature should be at least 3 Celsius degrees above the prevailing Dew Point
Re-coat window at 23°C	8 hours	16 hours	Re-coat windows are dependent on environmental conditions and should be adjusted accordingly - refer to EpiMax



## Maximum tank cargo temperatures

- Potable water 60°C
- Other cargo (Refer EpiMax)

## Application

### Acid resistant flooring

Surface profile should exceed CSP 2. Allow surfaces to dry if wet. Review the sub-floor area in advance so that a fixed volume of mixed material can be applied over a fixed area to ensure correct application rate. Select a slow speed (400rpm) mechanical mixer and ensure thorough mixing. Add EpiMax 333AR Part B (Hardener) to EpiMax 333AR Part A (Compound).

Mix until uniform.

EpiMax 333AR can be applied by roller or airless spray in two coats (minimum) to achieve a total 300 micron dft (minimum).

Allow the coating to cure for 7 days prior to subjecting to chemical exposure.

EpiMax 333AR can be applied to meet the requirements of HB198 Pedestrian Flooring Selection System Guidance.

Any coving at the wall to floor intersection, should also be professionally protected with EpiMax 333AR.

Where required, professional coving can be installed using a trowellable mix of 1 volume of mixed EpiMax 225 and up to 4 volumes of EpiMax EA4. Please note that coving work is rather specialised and may require some site modification to suit the specific site conditions. Allow to cure and then protect with EpiMax 333AR.

### Secondary containment protection

Surface profile should exceed CSP 3. Allow surfaces to dry if wet.

Consider the application of EpiMax 333AR in coats of contrasting colours.

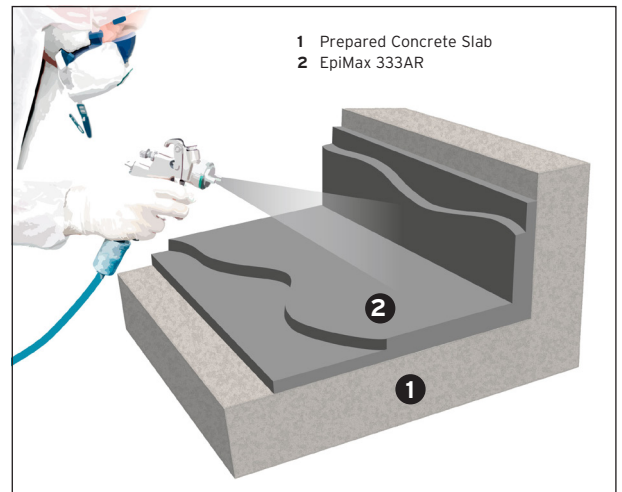
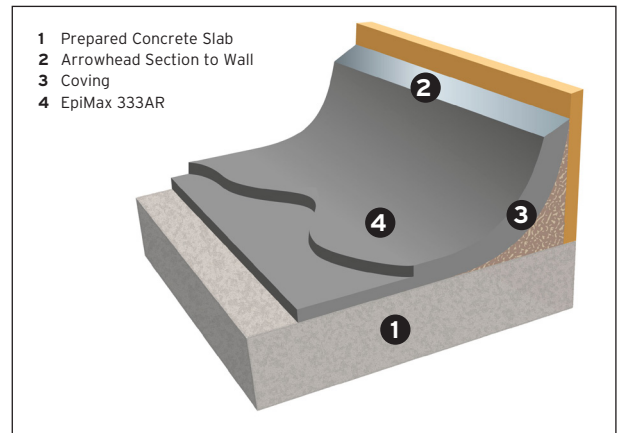
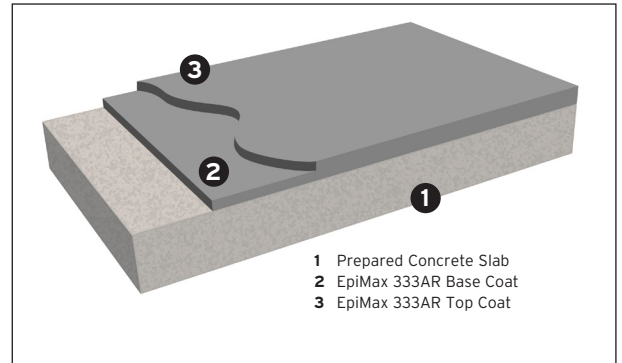
Review the area to be protected in advance so that a fixed volume of mixed material can be applied over a fixed area to ensure correct application rate. Select a slow speed (400rpm) mechanical mixer and ensure thorough mixing. Add EpiMax 333AR Part B (Hardener) to EpiMax 333AR Part A (Compound).

Mix until uniform.

EpiMax 333AR can be applied by roller or airless spray in two coats (minimum) to achieve a total 300 micron dft (minimum). When spraying a pressure range of 4,500 to 4,800 PSI using a .521 Graco HD spray tip will generate an acceptable spray pattern.

Allow the coating to cure for 7 days prior to subjecting to chemical exposure.

EpiMax 333AR can be applied to meet the requirements of HB198 Pedestrian Flooring Selection System Guidance (R10-R13).



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## **Wastewater access chamber protection**

Please contact EpiMax for specific project specification.

Ensure concrete structure is contaminant free, chemically sound, alkaline & stable. Surface profile should exceed CSP 3.

Allow surfaces to dry if wet.

Immediately protect prepared surfaces with a prime coat of EpiMax 225 and repair eroded or damaged voids with EpiMax 575.

Application should be in three coats of contrasting colours.

Review the area to be protected in advance so that a fixed volume of mixed material can be applied over a fixed area to ensure correct application rate. Select a slow speed (400rpm) mechanical mixer and ensure thorough mixing. Add EpiMax 333AR Part B (Hardener) EpiMax 333AR Part A (Compound).

Mix until uniform.

EpiMax 333AR High Build should be applied by roller or airless spray in three coats achieve a minimum total 450 micron dft.

When spraying a pressure range of 4,500 to 4,800 PSI using a .521 Graco HD spray tip will generate an acceptable spray pattern.



## **Packaging**

EpiMax 333AR is available in 16 litre packs in N35 Light Grey and N44 Bridge Grey. N14 White can be made to order. Includes Part A (Compound), Part B (Hardener).

It is pre-packed in correct proportions for use.

## **Safety precautions**

Read **Safety Data Sheet** before commencing any application. Keep away from children. Avoid contact with skin and avoid breathing vapour. Always provide adequate personal protection (gloves and goggles etc) during use. Always provide adequate ventilation, especially in confined spaces. If poisoning occurs, call Doctor or Poisons Information Centre. Phone 13 11 26. If swallowed, DO NOT induce vomiting. Give plenty of water or milk. If skin contact occurs, quickly remove contaminated clothing and wash affected areas thoroughly with soap and water.

TDG Code: Part A (Compound) - Not Classified, Part B (Hardener) - UN 2735