EpiMax 655

Spray Applied Epoxy Render

Description

EpiMax 655 Spray Applied Epoxy Render is a two-component solvent-free, high strength epoxy system designed for application in thicknesses ranging from 800 microns through to 3 mm (3000 microns).

This system has been formulated to address the issue of irregular surface finishes of concrete surfaces before application of the final protective coatings.

Vertical concrete surfaces cannot be prepared by conventional diamond grinding in the way that horizontal concrete surfaces can. Vertical concrete structures will often demonstrate significant surface imperfections and bug holes at the vertical formwork interface due to restricted compaction. These can be easily exposed by abrasive blasting or other approved surface preparation processes. This irregular surface profile can apply to both existing and new concrete structures.

Irregular surfaces can lead to protective coating discontinuities via the formation of pinholes and voids. Additionally, they will not allow protective coating film thicknesses to be measured accurately.

EpiMax 655 may be applied using industry standard airless spray equipment of sufficient capacity.

Solving the problem

As discussed above, the surface preparation process of vertical concrete can pose problems for the coating contractor, the specifier and the end user.

The International Concrete Repair Institute (ICRI) Guideline 310.2R–2013 for *Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair* provides for several methods for preparing concrete. In practice, many of these methods can leave significant surface irregularities with both new, cast in-place concrete and existing concrete. Examples are shown in the attached images.

The spray application of EpiMax 655 will address these conditions and provide a sound, relatively flat surface for further coating application without promoting pinholes due to air expansion from within the concrete.

Advantages

- Excellent adhesion to prepared surfaces
- High build application in single pass
- Good "surface healing" during application
- Good low temperature cure
- Excellent mechanical strength
- Adhesion ready for top coats, if needed

Typical applications

- Sedimentation and flocculation basins
- Concrete water reservoirs
- General wastewater facilities
- Water treatment facilities
- Secondary clarifiers
- Port and terminal concrete infrastructure

Typical properties

- Shelf life: 2 years
- Set to touch time: 4 hours at 25º C
- Cure time: 7 days at 25º C
- Compressive strength: 95 MPa
- Work time per pack: 30 minutes at 25º C
- Adhesion: > concrete tensile strength
- Tensile strength: 60 MPa
- Achievable vertical build 3 mm

Estimating data

20 ltr EpiMax 655 = 20 m^2 (total 1 mm dft)

Surface preparation

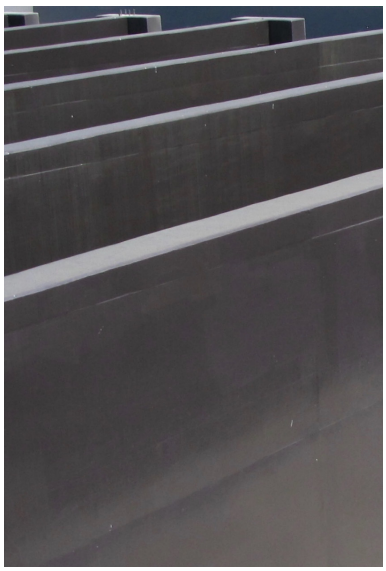
Concrete should be at least 28 days old. Ensure it is free of all contaminants, additives, curing agents, oils, pre-existing coatings etc and is also alkaline in nature. Prepare as necessary by professional diamond grinding or captive blast cleaning as applicable to expose firmly held aggregate to CSP 3 Standard. Vacuum all dust and debris. Allow to dry if wet. Always confirm preparation adequacy.

Mixing

Measure sufficient Part A and Part B to be used in 30 minutes. Mix thoroughly using a stirrer fitted into a low speed (400 rpm) power mixer. Ensure that all the material on the sides, under the lip of the container and on the stirrer is incorporated. Take care to avoid air entrapment into the mix.

Plural component airless

Airless spray equipment capable of equal volume metering and heating such as a Graco 45:1 or 56:1 Xtreme Mix with a fluid tip of 31 thou (0.79 mm) and an air supply capable of delivering 690-830 kPa (100-120 p.s.i.) at the pump and a line size of 12 mm I.D.



Pre-mix airless

Standard airless spray equipment such as a Graco 68:1 Xtreme with a fluid tip of 31 thou (79 mm) and an air supply capable of delivering 690-830 kPa (100-120 p.s.i.) at the pump and a line size of 12 mm I.D.

Add the stirred components together in the supplied 1:1 ratio by volume and mix using a power mixer immediately prior to use. Use without further delay.

Packaging

EpiMax 655 is available in 20 litre packs (includes Part A, Part B).
It is pre-packaged in correct proportions for immediate use.

Safety precautions

Read **Material 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 & 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, EpiMax 655: Part A - Not Classified, Part B - UN 1760

EpiMax

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