Product title: Corrocoat Vinyl Ester Polymer Concrete

Valid from: 7th April 2016

Last reviewed: May 2019

Type

A low shrink, vinyl ester polymer concrete, supplied as 3 components for mixing on site.

Suggested use

Corrocoat Vinyl Ester Polymer concrete may be used to lay screeds, cast slabs of up to 100mm thickness, or manufacture many items normally manufactured from standard concrete. It has advantages over standard concrete in that it is chemically resistant and has higher mechanical strengths. Unlike standard concrete, Vinyl Ester Polymer Concrete will bond to correctly prepared concrete or steel surfaces and may be used to repair existing concrete structures.

Limitations

Should not be used at temperatures higher than 100°C. Normally overcoated where chemical service is arduous.

Health & safety

Before commencing work, read the product Health & Safety data sheet. Only to be used by adequately trained personnel.

Surface preparation

Concrete: Grit Blast to remove surface laitance. For best results prepare surface as per Corrocoat Surface Preparation SP5 and prime accordingly.

Metals: Grit blast to ISO 8501-1 SA 2½ or equivalent and prime accordingly.

Corrocoat Vinyl Ester Polymer Concrete can be applied directly onto the substrate although the adhesion will be significantly reduced. Priming where possible is advisable.

Mixing ratio

15% Base: 85% Aggregate by weight
(Base Equals 98% Resin and 2% Organic Peroxide)

Mixing procedure

Thoroughly mix the catalyst with the resin, then add the aggregate ensuring that the product is thoroughly wetted and mixed throughout. A heavy-duty paddle may be used to mix the product or alternatively the product may be mixed in certain types of mixing machine provided that the unit is thoroughly cleaned after each mix.

Application

It is recommended that Corrocoat Vinyl Ester Polymer Concrete is not applied to unprepared surfaces, see surface preparation above. The concrete may be poured or trowelled in the normal manner up to 20mm thickness where shrinkage. Air bubbles can be removed as with conventional concrete by vibrating and the surface can be floated using a styrene wetted trowel.

The Corrocoat Vinyl Ester Polymer Concrete has high slump and hold up on vertical surfaces will be very limited. It is therefore necessary in most instances to shutter vertical surfaces.

Reinforcing bars and mesh may be used to increase mechanical strength and crack resistance. Where these materials are used, they should be grit blasted first to remove any oxide films and ensure good adhesion.
Pot life
Variable with temperature. Approximately 30-40 minutes at 20°C.

Overcoating
May take place as soon as the previous coat has gelled and whilst still tacky. Maximum overcoating time 72 hours at 20°C.

Thinners
The performance of Corrocoat Vinyl Ester Concrete may be significantly affected by the addition of solvent thinners including styrene. **DO NOT ADD SOLVENT THINNERS OR STYRENE.**

Catalyst type
P2.

Packaging
20 Litre and 5 Litre pails.

Cure time
At 20°C tack free in 4 hours.

Storage life
6 Months if stored at temperatures below 20°C and away from direct heat and sunlight.

Cleaning solvent
Prior to gelation - Acetone or Methyl Ethyl Ketone.

All values are approximate. Physical data is based on the product being in good condition before polymerisation, correctly catalysed and full cure being attained. Unless otherwise stated, physical data is based on a test temperature of 20°C, test results may vary with temperature. Information regarding application of the product is available in the Corrocoat manual. Should further information be required, please consult Corrocoat Technical Services.