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CORROCOAT Corrofill VE

Product reference: 3/38

Product title: Corrofill VE

Valid from: 30th December 1999

Last reviewed: May 2019

Type

A two-pack, vinyl ester filler and grouting material containing abrasion-resistant fillers.

Suggested use

As a pit filler or grout for badly pitted steel or other applications that require a high performance, chemically resistant coating system.

Limitations

Not suitable for immersion in some highly polar solvents. 230°F (110°C) in immersion: 320°F (160°C) gaseous. Maximum thickness in one layer is 6mm.

Health & safety

Before handling or using this product, the material safety data sheet should be read and all precautions observed.

Surface preparation

The surface to be coated should be free from grease etc. Metal should be grit blasted to a minimum SSPC-SP10 (ISO 8501-1 Sa 2½ near 3) or equivalent. (Please refer to Corrocoat data sheet SP1). All blast residues must be removed by sweeping or blowing clean and vacuuming where necessary.
Application to the substrate should then take place as soon as possible. For full surface preparation details see relevant surface preparation specification sheets. Alternatively, Corrofill VE may be applied over a Polyglass primer applied in accordance with that product data sheet.

Mixing ratio

Corrofill VE can be catalysed using P2 catalyst within the ratios of 100:1 PBW base to catalyst to 100:2 PBW base to catalyst. The ratio should always be within these limits, 2% addition of catalyst being the norm, 1% being used at ambient temperatures above 82°F (28°C) or where film thickness applied exceeds 5mm.

Mixing

Weigh out only the proportion of material which can be used within the pot life and place into a mixing container. Measure the correct proportion of catalyst for the base amount and carefully add this to the base using a suitable clean implement. Mix thoroughly then add dye if required and mix to an even color. After stirring it is advisable to remove the contents from the mixing container into a shallow receptacle and remix.

Pot life

50-60 Minutes at 68°F (20°C). Pot life will be shorter at higher temperatures and longer at lower temperatures. Where high temperatures are encountered, refrigerate material before use or else seek the advice of Corrocoat USA.

Application equipment

Short hair stiff brush, trowel or scraper blade.

Application

Using application implement, the catalyzed material should be vigorously worked into the surface profile, ensuring that the maximum possible wet out of the surface is achieved. Following this procedure, the coating thickness may be built up in thickness. The material may be applied at DFT's of up to 6mm but this thickness should not be exceeded in a single coat to avoid shrinkage and high exotherm.

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Thinners

DO NOT THIN. NO DILUENT OR THINNER MAY BE USED. The addition of Styrene may adversely affect the chemical resistance of this product. Styrene should not be added without consulting Corrocoat USA.

Packaging

1 Gallon and 5 Gallon Kits

Storage life

5 Months maximum, when stored at temperatures below 68°F (20°C) and away from radiating heat sources or direct sunlight.

Color

Dark grey.

Theoretical spreading rate

40 sf / gallon at 40 mils dft (1.3 kg/m² @ 1mm DFT).

Volume solids

Approximately 99.8%. This product contains volatile monomer convertible to solid. Cure conditions will affect actual volume solids obtained.

Practical spreading rate

Regular surfaces, e.g. new steel – 25 sf / gallon (1.9kg/m² @ 1mm DFT. Irregular surfaces, e.g. badly pitted steel - 3kg/m2 @ 1mm DFT).

NOTE: This information is given in good faith but may vary dependent upon environment conditions, the geometry and nature of work undertaken and the skill and care of application. Corrocoat accepts no responsibility for any deviation from these values.

Specific gravity

1 lb/cubic inch (27 gms/cc).

Flash point

89°F (32°C).

Compressive strength

8,534 psi (600 kg/cm²) (full cure).

Tensile strength

3,627 psi (255 kg/cm²) (full cure).

Adhesive strength

3,555 psi (250 kg/cm².)

Shrinkage ratio

6.5% dependent upon speed of cure.

Hardness

40 Barcol (ASTM) Standard D-2583.

Elongation to break

0.3% BS 2782 Part 10.

Overcoating

May take place as soon as the previous coat has gelled sufficiently to resist movement of next application and while still tacky. Maximum overcoating without treatment is 4 days at 68°F (20°C) (shorter at ambient temperatures above 86°F (30°C).

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Cure time

At 68°F (20°C), 90% cure attained in 8 hours. Full cure for chemical resistance will require 6 days at 68°F (20°C). Cure times will be shortened, and the degree of final cure improved by post curing at elevated temperatures.

Reviewed 02/2007 (No changes)
Reviewed 02/2014 (No changes)
Reviewed 05/2016 (No changes)
Reviewed 05/2019

All values are approximate. Physical data is based on the product being in good condition before polymerization, correctly catalyzed and full cure being attained. Unless otherwise stated, physical data is based on a test temperature of 68°F (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.