

Product reference: 1/02

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Product title: Corroglass 232

Valid from: 27th April 1987

Last reviewed: 31 May 2019

Type

A medium viscosity, pre-accelerated bisphenol 'A' polyester glass flake compound, cured by the addition of organic peroxide.

Suggested use

Corroglass 232 is predominantly used for coating intricate components by brush application, where ease of application and contour following are required. The material can also be spray applied using specialist equipment with "at gun catalyzation" to such items as pipework, tankage and flooring. Corroglass 232 is often used as a primer in specifications containing Corroglass 202 as the main build material.

Limitations

Not suitable for demineralized water. Resistance to polar solvents is poor and alkaline resistance at temperatures above 140°F (60°C) is limited.

Health & safety

Before handling or using this product, the 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 SSPC-SP10 (ISO Standard 8501-1 Sa 2½) or equivalent, with a surface profile of at least 3 mils (75 microns), with 4-5 mils (100-125 microns) being the ideal key. All blast residues should be removed by sweeping clean and vacuuming where necessary. Coating of the substrate should then take place as soon as possible. For full Surface Preparation details see relevant Surface Preparation Specification Sheets.

Application equipment

Brush, Roller, Trowel or Spray (with "at gun catalyzation").

Application

The material should be brush applied, vigorously working the coating into the blast profile and ensuring that all the surface is wetted out. When used as a primer, thickness is unimportant provided that if the surface is to be left for any time, the thickness should be enough to prevent through film corrosion until overcoated.

When used on its own 232 should be applied in multiple layers to the specified DFT for the environment of use. Care should be taken to avoid runs or sags, which although seldom detrimental to the coating performance, may affect fluid flow in pump impellers etc. Usual WFT applications are between 6-14 mils (150-350 microns) for brush applications and 20-24 mils (500-600 microns) sprayed.

In common with other materials within the range, dyes may be added to affect a color change, but care should be taken to keep addition of dye to a minimum. It is usual to overcoat this product with 252 to obtain a smoother, more easily cleaned and cosmetically superior surface finish, although this is not necessary on purely corrosion protection grounds.

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Mixing ratio

Corroglass 232 can be catalyzed within the ratios of 100:1 parts Base to Catalyst by weight to 100:2 parts Base to Catalyst by weight. The ratio should always be within these limits, 2% addition of catalyst being the norm with a reduction being made for high ambient temperatures.

Mixing

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

Pot life

40 to 50 minutes at 68°F (20°C). Pot life will be shorter at higher temperatures and longer at lower temperatures. Where temperatures are below 50°F (10°C) the use of catalyst P4 will reduce pot life and cure time. Where higher temperatures are encountered, refrigerate material before use or seek the advice of Corrocoat USA for availability of material with longer pot life.

Thinners

This material can be thinned by the addition of not more than 5 parts of Styrene Monomer to 100 parts base before catalyzation.

NO OTHER DILUTENT OR THINNER SHOULD BE USED. THE USE OF ACETONE OR SIMILAR THINNERS IN CORROGLASS WILL SEVERELY AFFECT PRODUCT PERFORMANCE.

Packaging

1 Gallon or 5 Gallon Kits

Storage life

12 months stored at temperatures below 68°F (20°C) and away from radiating heat sources or direct sunlight (see Shelf Life Information Sheet).

Color availability

Off White. Dyes can be used to effect color change.

Recommended DFT

0.5 to 1.5 mm in multiple coats or as advised

Theoretical spreading rate

32 sf per gallon at 40 mils dft

Volume solids

This material contains volatile liquid convertible to solids. Volume solids obtained will vary dependent upon polymerization conditions. Nominally greater than 99% of the contents are convertible to solid.

Practical spreading rate

Regular surfaces e.g. new steel – 25 sf per gallon at 40 mils dft minimum

Irregular surfaces e.g. badly pitted steel – 15 sf per gallon at 40 mils dft

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

Density

1.16 g/cm³ for Base.

Flash point

86°F (30°C)

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Catalyst type

Methyl Ethyl Ketone Peroxide Corrocoat Type P2 (for Ambient temperatures of 50°F (10°C) or above) or Catalyst P4 (for ambient temperatures below 50°F (10°C)).

Mixing ratio

100:1 to 100:2 base to catalyst.

Hardness

40 Barcol (approximate)

Tensile strength

3900 psi (26.8 N/mm²)

Cohesive strength

2195 psi (15.1 N/mm²)

Elongation

0.4%

Thermal Coefficient of Linear Expansion

$19.3 \times 10^{-6} / ^\circ\text{K}$

Moisture vapor transmission rate

Approximately $1.095 \times 10^{-2} \text{ g/hr/m}^2$ (0.0007 Perm inches)

Thermal conductivity

0.410 W/m²°k

Dielectric strength

16 To 25 x 10³ v/mm. Arc resistance 40 seconds minimum.

Temperature limits

Dependent upon environment.
194°F (90°C) immersed.
320°F (160°C) non-immersed.

Overcoating

May take place as soon as previous coat has gelled sufficiently to resist movement of next application and while still tacky. Maximum overcoating without treatment 5 days. Shorter at ambient temperatures above 86°F (30°C).

Cleaning fluid

Acetone or Methyl Ethyl Ketone before gel.
Trichloroethane after gel.

Machining

Use carbide tool or tip with good radius and neutral rake. Material has similar machining characteristics to those of grey cast iron. Tool must be kept sharp. Run out will occur due to tool wear over relatively short distances. Clean water may be used as a coating lubricant or dust suppressant.

Cure time

At 68°F (20°C) product will be hard within 3 hours and 90% cure will be attained within 12 hours. Full cure for chemical resistance will be between 7-10 days. Full cure times will be shorter at higher temperatures and longer at lower temperatures.

Although not fully cured, after gel has occurred this product may be immersed in many environments without detriment to the coating, the cure process continuing even when immersed.

Reviewed 10/2007

Revised 10/2010

Revised 05/2019

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.