

PLASMET

Plasmet ZE

Product reference: 5/22

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Product title: Plasmet ZE

Valid from: 24th March 1999

Last reviewed: July 2019

Type

Epoxy glass flake. A polyamine cured, high solids, two-pack glass-filled epoxy with good gloss and chemical resistance.

Suggested use

Ships' hulls, decks, platform structures, pipe work internals and externals, tankage and structural steel. Plasmet ZE may be used as a durable, chemical and abrasion resistant coating. It may be applied direct to the substrate or used to overcoat the inhibitive primer Plasmet ZF or Plasmet ECP to increase adhesion and durability.

Health & safety

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

Surface preparation

Plasmet ZE may be applied directly on to the metal substrate. The surface should be grit blasted to SSPC-SP10 (ISO 8501-1 Sa 2½) with a 3 mil (75 micron) profile. If grit blasting is not possible on metal surfaces, or where optimum performance is required, Plasmet ZF should be used as a primer. Best results and longevity will always be obtained with a blast cleaned substrate. When used on concrete surfaces best results are obtained by priming with Plasmet ECP.

Application equipment

Brush, roller or airless spray. Graco 63:1 airless spray. Tip size 25-31 thou. Spray pressure 5,000 to 6,000 PSI dependent upon temperature. Recirculation may be required at low application temperatures.

Application

Single or multiple coats of wet film thicknesses between 6-20 mils (150-500 microns) are recommended, dependent upon environment and service conditions. ZE should not be applied at surface temperatures below 41°F (5°C). The surface temperature should be at least 37°F (3°C) above the dew point and RH below 85%. Runs and sags should be avoided in applying this material.

Mixing ratio

Base 4:1 activator by weight.

Mixing

Remove the lids from the base and activator. Pour all of the activator into the base and mix thoroughly. Ensure that no unmixed activator remains. The material should be applied as soon as possible after mixing.

Temperature limitation

194°F (90°C)
Immersed, 248°F
(120°C) Non-
immersed
(Subject to service duty)

Pot life

Approximately 55-85 minutes at 68°F (20°C), will vary dependent upon temperature.

Thinners

Do not thin. The addition of thinners will significantly affect the performance of this product.

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Overcoating

Minimum: 6 hours

Maximum: 60 hours. This time will vary dependent upon temperature but will be substantially reduced at high ambient temperatures.

Packaging

1 gallon and 5 gallon kits

Storage life

2 years minimum in unopened tins, stored at 41-104°F (5-40°C).

Color availability

Black, red oxide and light grey. Other colors available on request subject to a minimum order quantity of 65 gallons (250 litres). White and light shades are unavailable due to the nature of the raw materials used for manufacture.

NOTE: This product is intended to give optimum corrosion resistance in aggressive environments. It is polymerized with a blend of amine curing agents. Because of the type of curing agent used the product has poor color stability and the color may change with either strong ultra violet light or chemical contamination. This effect is not detrimental to the product but may adversely affect the aesthetic appearance.

Volume solids

90%

Theoretical spreading rate

116 sf per gal at 14 mils (2.85m² per litre at 350 microns) dft.

Practical spreading rate

98 sf per gal at 14 mils (2.4m² at 350 microns).

Specific gravity

Base and activator mixed 0.04lbs/cubic inch (1.14 gms/cm³)

Dry / Cure time

Dry cure time at 68°F (20°C) approximately 12 hours.
Time to full cure 3 to 7 days dependent upon temperature.

Cleaning solvent

Xylene, Toluene, Methyl Ethyl Ketone, Corrocoat epoxy equipment cleaner.

Reviewed 10/2001 (No changes)

Reviewed 02/2014 (No changes)

Reviewed 10/2017 (No changes)

Revised 05/2018

Revised 09/2018

Revised 07/2019

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.