

2 Component Surface Tolerant Epoxy Coating for Rebar

Guardian ST-E is a two component high build, high solids epoxy coating for rebar and maintenance work. Available in aluminum pigmented version to provide additional corrosive barrier protection.

USES & ADVANTAGES

Guardian ST-E is a surface tolerant product used in a wide variety of applications and for various substrates including hand prepared rusty steel, rebar, abrasive blast cleaned and hydro blasted steel, and over existing intact but aged coatings.

Areas of use include anti corrosive protection to steel and rebar in industrial, coastal structures, pulp and paper plants, bridges and offshore environments in both atmospheric exposure and immersion.

Advantages include:-

- High build.
- May use on hand prepared rebar & steel.
- May use with steel coating systems.
- High coverage rate : 6m²/litre
- Economical.
- Apply by brush, roller or spray.
- Small packaging for small jobs - low wastage.
- May use with Guardian repair systems.
- Two Part.
- Rapid drying.
- One coat application possible.

PROPERTIES

Appearance/Colour:	Aluminum
Gloss Level:	Eggshell
Volume Solids:	80-85% (depends on colour)
Typical Thickness:	100-200 microns (4-8 mils) dry equivalent to 122-244 microns (4.9-9.8 mils) wet.
Theoretical Coverage:	6.5 m ² /litre at 125 microns d.f.t. and stated volume solids.
Practical Coverage:	Allow appropriate loss factors.
Method of Application:	Airless spray, air spray, brush, roller.

DYING TIME

Temp.	Touch Dry	Hard Dry	Overcoating Interval Guardian ST-E with self		Overcoating Interval with Recommended topcoats	
			Min.	Max.	Min.	Max.
25°C	4 hrs.	16 hrs.	16 hrs.	14 days	8 hrs.	7 days
40°C	2 hrs.	6 hrs.	6 hrs.	7 days	4 hrs.	3 days
Flash Point:	Base (Part A) 36°C		C/A (Part B) 31°C		Mixed 35°C	

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SUBSTRATE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated should be clean, dry and free from contamination.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Abrasive Blast Cleaning

Surface defects revealed by the blast cleaning process, should be ground, filled, or treated in the appropriate manner.

A surface profile of 50-75 microns (2-3 mils is recommended).

Hand or Power Tool Preparation

Note, all scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be spot blasted.

Aged Coating

Guardian ST-E is suitable for overcoating a limited range of intact, tightly adherent coatings. Loose or flaking coatings should be removed back to a firm edge. Glossy finishes may require light abrasion to provide a physical "key".

MIXING/ APPLICATION

Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.

(1) Agitate Base (Part A) with a power agitator.

(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.

Mix Ratio: 4 : 1 by weight.

Working Pot Life: 25°C 40°C

2 hours 1 hour

Airless Spray:

Recommended

- Tip range 0.45-0.58 mm. (18-23 thou)

- Total output fluid pressure at spray tip not less than 176 kg/cm² (2,500 p.s.i.)

Air Spray (Pressure Pot):

Recommended

Gun De Vilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E

Brush: Recommended

Typically 100-125 microns (4-5 mils) can be achieved.

Roller: Recommended

Typically 75-100 microns (3-4 mils) can be achieved.

Thinner:

Guardian Thinner

Cleaner:

Guardian Cleaner

APPLICATION

Clean all equipment immediately after use with **Guardian Thinner**. It is good working practice to periodically flush out spray equipment during the course of the working day. In order to achieve optimum performance on hand prepared steel, the aluminum pigmented version should be applied.

Maximum film build in one coat is best attained by airless spray. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build. If salt water is used in the wet blast process the resulting surface must be thoroughly washed with fresh water before application of **Guardian ST-E**.

Guardian ST-E is suitable for overcoating intact, aged alkyd, epoxy and polyurethane systems. However, this product is not recommended where thermoplastic coating such as chlorinated rubbers and vinyl have previously been used. Please consult Guardian for alternative recommendations.

Surface temperatures must always be a minimum of 3°C (5°F) above dew point.

Level of sheen and surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible.

In common with all epoxies **Guardian ST-E** will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Premature exposure to ponding water will cause a colour change, especially in dark colours.

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PACKAGING

5 and 20 litre units in oversized cans for mixing.
For availability of other pack sizes contact Guardian.

STORAGE & SHELF LIFE

12 months minimum at 25oC. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

HEALTH & SAFETY

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s).

All work involving the application and use of this product should be performed in compliance with all relevant National, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult Guardian. for further service.

TECHNICAL SERVICE

The Guardian Coating Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

QUALITY ASSURANCE

ISO 9001 : 2015 verified by TUV Nord