

SELECTION & SPECIFICATION DATA

General Paint Name	High-build, epoxy resin paint
Generic Type	Epoxy/ polyamide amine
Description	Lead-free, high-build epoxy primer which can be handled safely. Recommended for the use for steel structures, concrete substrates, equipment and machinery of nuclear power plants, food plants, breweries, paper mills, and other industries.
Features	<ul style="list-style-type: none"> • Free of harmful heavy metal • Excellent quick-drying capability • "Low VOC paint" (Weight solids ≥ 70%)
Color	Light gray
Primer	Carbozinc 11 etc. Or direct to substrates A mist coat may be required to minimize bubbling over inorganic zinc-rich paints.
Solid(s) Content	By Volume 50%
Solids Content	By Weight 70%
Mixed Density	1.40 +/- 0.05 g/ cm ³
VOC Values	As Supplied : 425 g/ L

Application Method	Dry Film Thickness (microns/coat)	Theoretical Coverage Rate (g/m ²)	Practical Coverage Rate (g/m ²)*
Spray	75	208	330 ~ 370
Brush	50	140	190 ~ 210

*: Practical Coverage Rates are estimates based on average results. Individual results may vary based on several issues including the shape and location of the item being painted as well as environmental conditions like temperature, humidity and wind. The skill level of those applying the paint will also impact the final results. For details, consult Japan Carboline staff.

Wet/ Dry (As Supplied)	1.98
Sag Resistance (Dry)	151 microns
Dry Temp. Resistance	Continuous: 93°C (199°F) Non-Continuous: 121°C (250°F)
Limitations	Not recommended for immersion services. Not recommended for splash and spillage of strong solvents or high-concentration acids.
Topcoats	Carboguard 191 Finish, Carbothane 234 HS, etc.

SUBSTRATES & SURFACE PREPARATION

General	Remove any oil or grease from surface to be coated with clean rags soaked in an adequate solvent.
Steel	ISO Sa 2 with 25-50 micron surface profile

Carboguard 193 LF Primer

PRODUCT DATA SHEET



MIXING & THINNING

Mixing	<p>Power mix Part A and B separately, until uniform consistency, then combine and power mix until uniform consistency.</p> <p>In principle, the whole contents in the containers of Part A and B should be mixed together. When using partial kits out of necessity, agitate Part A and B separately, until uniform consistency, use a scale to weigh each part precisely, then combine and power mix until uniform consistency.</p>
Thinning	<p>Use of Carboline Thinner 15 is recommended. For extremely warm or windy conditions, may be thinned with Carboline Thinner 33 to prevent spray dusts and/or bubbling.</p> <p>Use of thinners other than those supplied or recommended by JAPAN CARBOLINE may adversely affect product performance.</p>
Ratio	Part A : Part B = 50 : 50 (by weight)
Pot Life	5°C: 20 hours 10°C: 16 hours 20°C: 8 hours 30°C: 4 hours

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Application Tool	Airless spray, Air spray, Brush
Airless Spray	<ul style="list-style-type: none">• Pump Ratio: 30 : 1• Output Pressure: 12-18 MPa• Tip Size: 0.017-0.021"• Filter Size: 50 Mesh (if needed)• Thinning: up to 15 weight %• Appropriate Viscosity: 1.0-2.0 Pa·s (10-20 Poise)

APPLICATION CONDITIONS

Condition	Surface	Ambient	Humidity
Minimum	10°C (50°F)	10°C (50°F)	0%
Maximum	50°C (122°F)	43°C (109°F)	85%

CURING SCHEDULE

Surface Temp.	Dry Hard	Maximum Recoat Time	Minimum Recoat Time
5°C (41°F)	36 Hours	30 Days	36 Hours
10°C (50°F)	24 Hours	21 Days	24 Hours
20°C (68°F)	12 Hours	14 Days	12 Hours
30°C (86°F)	6 Hours	7 Days	6 Hours

At ambient temperature of 10°C or lower, substrates need to be heated for proper curing. Curing schedule is based on 75 micron dry film thickness. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure.

PACKAGING, HANDLING & STORAGE

Shelf Life | 12 months (when kept in original unopened containers)

Storage | Store indoors.

Net Weight	22 kg kit
Part A	11 kg
Part B	11 kg

Flash Point (Setaflash) | Part A: 15°C
 Part B: 18°C
 Carboline Thinner 15: 27°C
 Carboline Thinner 33: 35°C

UPDATE INFORMATION

Last Modified | May, 2023

Control Number | PDS005-013

WARRANTY

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