

SELECTION & SPECIFICATION DATA

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| General Paint Name | Interval-free, high-build, epoxy resin paint |
| Generic Type | Epoxy/ polyamide amine |
| Description | An interval-free epoxy primer with wide recoat window. Recommended for the use for steel structures, concrete substrates, and equipment and machinery of food plants, breweries, paper mills, and other industries. |
| Features | <ul style="list-style-type: none"> • As a maximum, 180 days of recoat window • Free of harmful heavy metals • Excellent adhesion characteristics to steel and nonferrous substrates • "Low VOC paint" (Weight solids ≥ 70%) |
| Color | Gray and White |
| 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 51% |
| Solids Content | By Weight 70% |
| Mixed Density | 1.39 +/- 0.05 g/ cm ³ |
| VOC Values | As Supplied : 417 g/ L |

| Application Method | Dry Film Thickness (microns/coat) | Theoretical Coverage Rate (g/m ²) | Practical Coverage Rate (g/m ²)* |
|--------------------|-----------------------------------|---|--|
| Spray | 100 | 273 | 430 ~ 490 |
| Brush/ Roller | 50 | 136 | 180 ~ 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.

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| Wet/ Dry (As Supplied) | 1.96 |
| Sag Resistance (Dry) | 250 microns |
| Dry Temp. Resistance | Continuous: 120°C (248°F) |
| Limitations | Not recommended for immersion services. Not recommended for splash of solvents or strong acids. |
| Topcoats | Carbomastic Color II, Carbothane 234 HS, etc. |

SUBSTRATES & SURFACE PREPARATION

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

Carboguard 193 Long

PRODUCT DATA SHEET



MIXING & THINNING

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| Mixing | Power mix Part A, combine with Part B, then power mix until uniform consistency. 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. |
| Thinning | 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. Use of thinners other than those supplied or recommended by JAPAN CARBOLINE may adversely affect product performance. |
| Ratio | Part A : Part B = 85 : 15 (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.

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| Application Tool | Airless spray, Air spray, Brush, and Roller |
| 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 10 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 | 180 Days | 36 Hours |
| 10°C (50°F) | 24 Hours | 180 Days | 24 Hours |
| 20°C (68°F) | 12 Hours | 180 Days | 12 Hours |
| 30°C (86°F) | 6 Hours | 180 Days | 6 Hours |

At ambient temperature of 10°C or lower, substrates need to be heated for proper curing. Curing schedule is based on 100 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. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration and may result in a surface haze. Any haze or blush must be removed by water washing before recoating.

PACKAGING, HANDLING & STORAGE

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

Storage | Store indoors.

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| Net Weight | 20 kg kit |
| Part A | 17 kg |
| Part B | 3 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 | PDS008-015

WARRANTY

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