

Selection & Specification Data

Generic Type Epoxy-polyamide. Part A and Part B mixed prior to application.

Description CARBOLINE 190 HB can be used over Carboline inorganic zinc primers. Particularly recommended as an exterior coating for tank farms and miscellaneous equipment where uniformity of color and resistance to salt, alkalis and weathering exposures is required

Features CARBOLINE 190 HB has very good resistance to mild acids and solvents. The cured film is tough and abrasion resistant.

CHEMICAL RESISTANCE GUIDE :

Exposure	Splash and Spillage	Fumes
Acids	Fair	Very Good
Alkalis	Excellent	Excellent
Solvents	Good	Very Good
Salt	Excellent	Excellent
Water	Excellent	Excellent

FLEXIBILITY: Fair

WEATHERING: Very Good (chalks - result in fading, most noticeable in dark colors).

ABRASION RESISTANCE: Very Good

Color Available in a variety of colors. Consult your local Carboline representative or Carboline Customer Service for availability. If long term color retention is desired for esthetic reasons, topcoat with CARBOLINE 134 or other recommended coating. CARBOLINE 190 HB Tank Finish, White 0854, is a freely chalking self-cleaning white product. Consult separate Product Data Sheet for specific recommendations

Primers May be applied directly over inorganic zincs, weathered galvanising, catalyzed epoxies, phenolics or other coatings as recommended. A mist coat of CARBOLINE 190 HB is recommended when applied over inorganic zincs to minimize bubbling. Consult Carboline Technical Service for specific recommendations.

Topcoats Normally none. May be topcoated as recommended to upgrade weathering resistance, or for higher gloss.

Dry Film Thickness 4-6 mils (100-150 microns)

Solids Content CARBOLINE 190 HB By Volume
72% ± 2%

Theoretical Coverage Rate 25.2 sq. m /l at 25 microns
5.04 sq. m/l at 125 microns
***NOTE:** Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

Dry Temp. Resistance (non-immersion)
Continuous: 200°F(93°C)
Non-continuous: 250°F(121°C)

Limitations Immersion service, strong acid exposures or areas where chalking is undesirable
Chalks upon weathering

Substrates & Surface Preparation

General Apply over suitably primed metal, concrete or other surfaces as recommended

Steel Apply over clean dry recommended primers.

Concrete Apply over clean, dry recommended surfacer or primer.

Application Equipment

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. **General Guidelines:**

Spray Application (General) Remove all oil or grease (rom the surface to be coated with Thinner 2 or Carboline Surface Cleaner 3 (refer to Surface Cleaner 3 Instructions) in accordance with SSPC-SP 1.

Conventional Spray Use 3/8" minimum I.D. material hose. Hold gun approximately 12-14 inches from the surface and at a right angle to the surface.

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Carboguard®190 HB

Airless Spray Use a 3/8" minimum I.D material hose. Hold gun approximately 18-20" from the surface and at a right angle to the surface

Mfr. & gun Pump*
Binks model 700 B8-36 37: 1
DeVilbiss JGN QFA - 519
510

* Teflon packings are recommended and are available from pump manufactures. Use a 0.017 – 0.019" tip with 2400 psi

Brush & Roller (General) Recommended for small areas or touch-up only. Avoid rebrushing and rerolling. Use CARBOLINE Thinner #33 up to 25% by volume for best results. Two coats may be required to obtain desired appearance.

Brush Use medium bristle brush or good quality short nap roller..

Roller Recommended for small areas or touch-up only. Use good quality short nap roller.

Mixing & Thinning

Mixing & Ratio Power mix separately, then combine and mix in the following proportions.

	10 ltrs set
CARBOLINE 190 HB Part A	5 Ltrs
CARBOLINE 190 HB Part B	5 Ltrs

Thinning Thin up to 25% by volume with CARBOLINE Thinner #15. For hot or windy conditions, use CARBOLINE Thinner #33. NOTE: Use of thinners other than those supplied or approved by Carboline may adversely affect product performance and void product warranty, whether express or implied.

Pot Life Eight hours at 75°F (24°C) and less at higher temperatures. Pot life ends when coating loses body and begins to sag.

Cleanup & Safety

Cleanup Use CARBOLINE Thinner # 2

Safety Read and follow all caution statements on this product data sheet and on the MSDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation and wear gloves or use protective cream on face and hands if hypersensitive. Keep container closed when not in use.

Ventilation When used in enclosed area, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of

preventing the solvent vapor concentration from reaching the lower explosion limit for the solvent used. User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor levels, use MSHA/NIOSH approved respirator

Caution

This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non sparking shoes

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	65-85°F (18-29°C)	65-85°F (18-29°C)	60-90°F (16-32°C)	65%
Minimum	50°F(10°C)	50°F(10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	140°F(60°C)	120°F (49°C)	85%

Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Recoat	Final Cure
50°F (10°C)	3 days	1 week
75°F (24°C)	18 hour	4 days
90°F (32°C)	10 hours	2 days

Packaging, Handling & Storage

Shipping Weight (Approximate)
CARBOLINE 190 HB 10 ltrs set (15.5 kgs)
Thinner #15 5 ltrs (4.4 kgs)
Thinner #33 5 trs (4.5 kgs)

Flash Point (Pensky-Martens Closed Cup)
CARBOLINE 190 HB Part A 58°F (14°C)
CARBOLINE 190 HB Part B 73°F (23°C)
CARBOLINE Thinner # 15 77°F (25°C)
CARBOLINE Thinner # 33 101°F (38°C)

Storage Temperature & Humidity (Store indoors)
Temperature: 40-110°F (4-43°C)
Humidity: 0-100%

Shelf Life 12 months minimum when stored at 32°C.

*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.



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