

## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Modified Alkyd Primer
<b>Description</b>	Universal primer with Zinc Phosphate that provides corrosion protection on structural steel. Designed to be overcoated by 2k products like Polyurethanes for aesthetics or epoxies for additional protection.
<b>Features</b>	<ul style="list-style-type: none"> <li>• One component product</li> <li>• Fast cure</li> <li>• Lead and chromate free</li> <li>• Contains zinc phosphate as a corrosion inhibitor</li> <li>• Can be applied by Airless- and conventional spray, roller and brush</li> <li>• New construction and repairs</li> <li>• Can be overcoated with 2 component products like Epoxies and Polyurethane</li> </ul> <p>For specific performance data, please contact your Carboline sales representative.</p>
<b>Color</b>	Grey, Beige, Red-Brown
<b>Finish</b>	Matte
<b>Primer</b>	Self-priming
<b>Dry Film Thickness</b>	30 - 60 microns per coat
<b>Solids Content</b>	By Volume 68% +/- 2%
<b>Theoretical Coverage Rate</b>	26.8 m <sup>2</sup> /l at 25 microns (1091 ft <sup>2</sup> /gal at 1.0 mils) Allow for loss in mixing and application.
<b>VOC Values</b>	<p><b>As Supplied</b> : 420 g/l</p> <p>These are nominal values.</p>
<b>Dry Temp. Resistance</b>	Continuous: 100°C (212°F)
<b>Topcoats</b>	Acrylics, Alkyds, Polyurethanes, Epoxies, 1K and 2K products.
<b>Density</b>	1.6kg per litre

## SUBSTRATES & SURFACE PREPARATION

<b>General</b>	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
<b>Steel</b>	ISO 8501-1, Sa 2 with a 25-50 micron (1.0-2.0 mil) surface profile for maximum protection. ISO 8501-1 St2 or St3 as minimum requirement.

## MIXING & THINNING

<b>Mixing</b>	Mix carefully until an even consistency is achieved. Avoid excessive air admixture.
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# Carbocoat 199

## PRODUCT DATA SHEET



### MIXING & THINNING

**Thinning** | Spray: may be thinned up to maximum 20% with Thinner 15.  
Brush and Roller: may be thinned up to maximum 5% with Thinner 15.  
Use of thinners other than those supplied or recommended by Carboline adversely affect product performance and void product warranty, whether expressed or implied.

### 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.

**Spray Application (General)** | The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

**Conventional Spray** | Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, 0.052" I.D. fluid tip and appropriate air cap.

**Airless Spray** | Pump Ratio: 30:1 (min.)\*  
GPM Output: 3.0 (min.)  
Material Hose: 3/8" I.D. (min.)  
Tip Size: 0.013-0.017"  
Output BAR: 140-162  
Filter Size: 60 mesh  
\*PTFE packings are recommended and available from the pump manufacturer.

**Brush & Roller (General)** | Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding.

**Brush** | Use a medium bristle brush.

**Roller** | Use a good quality roller with phenolic core.

### APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C (50°F)	10°C (50°F)	8°C (46°F)	0%
Maximum	49°C (120°F)	49°C (120°F)	49°C (120°F)	75%

Substrate temperatures should be 3°C above the dew point. This product simply requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate.

### CURING SCHEDULE

Surface Temp.	Dry to Touch	Dry to Handle	Dry to Recoat
20°C (68°F)	20 Minutes	60 Minutes	3 Hours

These times are based on a 50 microns dry film thickness and 50% relative humidity. Higher film thickness, insufficient ventilation, high humidity or cooler temperatures will require longer cure times and could result in solvent entrapment or premature failure.

### CLEANUP & SAFETY

**Cleanup** | Use Thinner 2 or Thinner 15. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

## CLEANUP & SAFETY

<b>Safety</b>	Read and follow all caution statements on this product data sheet and on the MSDS for this product. Employ normal workmanlike safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.
<b>Ventilation</b>	When used in enclosed areas, 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 solvents 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.
<b>Caution</b>	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, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

## PACKAGING, HANDLING & STORAGE

<b>Shelf Life</b>	12 months at 24 °C (75 °F) *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
<b>Shipping Weight (Approximate)</b>	20 litres drum = 25 kg 200 litre barrel = 250 kg
<b>Storage Temperature &amp; Humidity</b>	41-104°F (5-40°C) 0-90% Relative Humidity
<b>Flash Point (Setaflash)</b>	10°C
<b>Storage</b>	Store Indoors.

## WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.