

## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Modified zinc phosphate silicone alkyd primer
<b>Description</b>	Modified anti-corrosive silicone primer for steel that may be exposed to temperatures up to 260°C. Extremely suitable for maintenance of chimneys, pipes, tanks, exterior of heat exchangers, etc. when optimal preparation of the substrate is not possible.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Single component</li> <li>• Temperature resistant up to 232°C continuously</li> <li>• Excellent flexibility</li> <li>• Good corrosion protection on blasted and St2/St3 pre-treated substrates</li> <li>• Suitable for both new construction and maintenance</li> <li>• Can be applied with a spray, roller or brush</li> </ul>
<b>Color</b>	Oxide red (approximate RAL 3009)
<b>Finish</b>	Matte
<b>Primer</b>	Self-priming
<b>Dry Film Thickness</b>	50 microns per layer.
<b>Solid(s) Content</b>	By volume: 45% ± 2%
<b>Theoretical Coverage Rates</b>	9m <sup>2</sup> /l at 50 microns. Take into account mixing and spraying losses.
<b>VOC Values</b>	<b>As Supplied</b> : 450 g/l  These are average values and may vary slightly depending on the colour.
<b>Dry Temp. Resistance</b>	Continuous: 232°C (450°F) Non-Continuous: 260°C (500°F)

## SUBSTRATES & SURFACE PREPARATION

<b>General</b>	The surface must be clean and dry. Use appropriate methods to remove all dirt, dust, oil and other contaminants that could prevent the coating from adhering properly.
<b>Steel</b>	Sa 2½ for maximum protection. Surface profile 30-40 microns. St2, St3 and Sa1 are also acceptable methods.

## MIXING & THINNING

<b>Mixing</b>	Mix the product thoroughly. Avoid air mixing.
<b>Thinning</b>	<p>Spraying: may be diluted up to 25% with Thinner 85. Brush and roller: may be diluted up to 10% with Thinner 85.</p> <p>The use of thinners other than those specified and supplied by Carboline may adversely affect the product and will invalidate the product warranty, regardless of whether this was done intentionally or accidentally.</p>

# Carbocoat HM 21

## PRODUCT DATA SHEET



### 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** | The following spray equipment has been found to be suitable and is available from suppliers such as Binks, DeVilbiss, Graco, etc.

**Conventional Spray** | Pressure vessel with mixer equipped with dual control, 3/8" I.D. minimum material hose, .043" I.D. spray tip and appropriate air cap.

**Airless Spray** | Pump Ratio: 30:1 (min.)  
GPM Output: 3.0 (min.)  
Hoses: 3/8" I.D. (min.)  
Tip size: .013-.017"  
Pressure BAR: 125-140  
Filter size: 60 mesh  
Teflon gaskets are recommended and available from pump suppliers.

**Brush & Roller (General)** | Multiple coats may be required to achieve the required film thickness, coverage and desired appearance. Avoid repeated brushing and rolling.

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

**Roller** | Use a good quality roller that does not shed.

### APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	2°C (36°F)	2°C (36°F)	2°C (36°F)	0%
Maximum	49°C (120°F)	66°C (151°F)	49°C (120°F)	95%

This product requires the surface temperature to be 3°C above the dew point. Condensation on the surface due to surface temperatures below the dew point can cause flash rust on the blasted surface and will adversely affect adhesion. Special techniques may be required when working above or below the specified conditions.

### CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Recoat
4°C (39°F)	48 Hours	60 Hours
10°C (50°F)	36 Hours	48 Hours
16°C (61°F)	30 Hours	30 Hours
24°C (75°F)	24 Hours	24 Hours
32°C (90°F)	24 Hours	24 Hours

These times are based on a dry film thickness of 50 microns and 50% relative humidity. Higher film thicknesses may result in entrapment of thinner and premature failure of the coating.

### CLEANUP & SAFETY

**Cleanup** | Use Thinner 85. In case of spillage, absorb and clean up in accordance with local regulations.

**CLEANUP & SAFETY**

<b>Safety</b>	Carefully read and follow all safety rules listed on the product information sheet and safety data sheet. Use the safety equipment normally specified for this work. Hypersensitive persons should wear protective clothing and gloves and apply a protective cream to the face, hands and all other unprotected areas.
<b>Ventilation</b>	When used in confined spaces, a good ventilation system must be used during application and drying of the product. The ventilation system must be capable of preventing the evaporated thinner from reaching the lower explosion limit applicable to the thinner used. In addition to ventilation, personnel must use appropriate respiratory protection.

**PACKAGING, HANDLING & STORAGE**

<b>Shelf Life</b>	24 months at 24°C Shelf life: (actual shelf life stated) when stored under the recommended storage conditions and in original unopened containers.
<b>Shipping Weight (Approximate)</b>	<u>20 Liters</u> 27 kg
<b>Storage Temperature &amp; Humidity</b>	4°-43°C 0-90% relative humidity
<b>Flash Point (Setaflash)</b>	41°C
<b>Storage</b>	Store covered and frost-free.

**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 to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. Carboline warrants our products to be free of manufacturing defects in accord with applicable Carboline quality control procedures. THIS WARRANTY IS NOT VALID WHEN THE PRODUCT IS NOT: (1) APPLIED IN ACCORDANCE WITH CARBOLINE'S SPECIFICATIONS, AND/OR (2) PROPERLY STORED, CURED, AND USED UNDER NORMAL OPERATING CONDITIONS. Carboline assumes no responsibility for coverage, performance, injuries, or damages resulting from use of the product. If this product is found not to perform as specified upon inspection by a Carboline representative during the warranty period, Carboline's sole obligation, if any, is to replace the Carboline product(s) proven to be defective or refund the purchase price thereof, at Carboline's sole option. Carboline shall not be liable for any other losses or damages. This warranty excludes (1) labor and costs of labor for the application or removal of any product, and (2) any incidental or consequential damages, whether based on breach of express or implied warranty, negligence, strict liability or any other legal theory. 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. The whole text of this Product Data Sheet, as well as the documents derived from it, have been written in English, and for legal purposes the English version shall prevail.