# Carbocrylic 3312 Primer

PRODUCT DATA SHEET

## SELECTION & SPECIFICATION DATA

| | |
|---|---|
| **Generic Type** | Water-based acrylic |
| **Description** | Fast-drying, single-component, water-based anti-corrosive primer with good adhesion and corrosion resistance, without environmentally harmful pigments. Used where a universal primer is required for different types of substrates such as carbon steel, aluminium, galvanised steel and others. Especially recommended for protecting carbon steel due to its antioxidant properties. Can be recoated with a wide variety of finishes used in industry. Suitable when a solvent-free product is required in painting processes. |
| **Features** | • Good adhesion to carbon steel and other substrates<br>• Lead and chromate free<br>• Good anti-corrosive power<br>• Good levelling and application properties<br>• Good substrate coverage<br>• Weldable, does not give off toxic fumes<br>• Excellent repaint ability |
| **Color** | Grey<br><br>Other colours available upon request.<br>Consult your Carboline sales representative for availability. |
| **Finish** | Matte |
| **Dry Film Thickness** | 50 microns (1.97 mils) per coat |
| **Solids Content** | By Volume 46% +/- 2% |
| **Theoretical Coverage Rates** | 11 $m^2$/l at 50 µm (2 mil)<br><br>Not including losses during mixing and application. |
| **VOC Values** | **As Supplied** : 40.3 g/l |
| **Dry Temp. Resistance** | Continuous: 100°C (212°F)<br>Non-Continuous: 120°C (248°F) |
| **Limitations** | Not recommended for immersion service. |
| **Topcoats** | Can be repainted with a wide variety of finishes.<br>Consult Carboline Technical Service for more information. |

## SUBSTRATES & SURFACE PREPARATION

| | |
|---|---|
| **General** | The surface must be clean and dry. Use appropriate methods to remove dirt, dust, oil and all other contaminants that may interfere with paint adhesion. |
| **Steel** | ISO 8501-1 Sa 2 (SSPC-SP6) with a surface roughness profile of 25-50 microns (1.0-2.0 mils) for adequate protection. ISO 8501-1 grade St2 or St3 (SSPC-SP2 or SP3) as a minimum requirement. |
| **Previously Painted Surfaces** | Lightly sand or roughen the surface and blend to remove gloss. Existing paint must achieve a minimum rating of 3A according to the ASTM D3359 "X-Scribe" adhesion test. |

## MIXING & THINNING

| | |
|---|---|
| **Mixing** | Mix until a uniform consistency is achieved. Avoid excessive air entrapment. |
| **Thinning** | Spraying: Up to 15% with potable water.<br>Brush and roller: Up to 10% with potable water. |

## 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)** | Pre-rinse equipment with degreasing agent, followed by clean potable water before spraying. The following spraying equipment has been found to be suitable and is available from manufacturers such as Binks, DeVilbiss and Graco. |
| **Conventional Spray** | Pressure vessel equipped with dual regulators, material hose with a minimum internal diameter of 12.7 mm (1/2"), fluid tip with an internal diameter of 1.5 mm (0.06") and suitable air cap. |
| **Airless Spray** | Pump ratio: 30:1 (minimum)<br>Output flow rate: 11.36 LPM (3.0 GPM) (minimum)<br>Material hose: 9.53 mm (3/8") internal diameter (minimum)<br>Nozzle size: 0.43-0.48 mm (0.017"-0.019")<br>Outlet pressure: 124-145 mm (1800-2100 psi)<br>Filter size: 250 microns (60 mesh)<br><br>Teflon gaskets are recommended and are available from the pump manufacturer. |
| **Brush & Roller (General)** | Multiple coats of paint may be necessary to achieve the desired appearance, coverage, and recommended dry film thickness. Avoid excessive recoating or repainting. |

## APPLICATION CONDITIONS

| Condition | Material | Surface | Ambient | Humidity |
|---|---|---|---|---|
| Minimum | 10°C (50°F) | 10°C (50°F) | 10°C (50°F) | 0% |
| Maximum | 30°C (86°F) | 30°C (86°F) | 30°C (86°F) | 80% |

Do not apply when the surface temperature is below 3°C (5°F) above the dew point. Do not apply if temperatures are expected to fall below 10°C (50°F) within 24 hours of application.

## CURING SCHEDULE

| Surface Temp. | Touch Dry | Dry to Recoat | Dry to Topcoat |
|---|---|---|---|
| 10°C (50°F) | 2 Hours | 7 Hours | 36 Hours |
| 15°C (59°F) | 75 Minutes | 6.5 Hours | 24 Hours |
| 20°C (68°F) | 50 Minutes | 6 Hours | 24 Hours |
| 24°C (75°F) | 30 Minutes | 6 Hours | 24 Hours |

These times are based on a dry film thickness of 50 microns (2 mils) at 50% humidity. High humidity, high film thickness, insufficient ventilation, or cooler temperatures will prolong touch dry and finish dry times due to slower water evaporation rates. Water-based acrylics are sensitive to humidity during the initial cure and are susceptible to damage from handling. For two-component finishes, it is recommended to wait 48 hours for air drying. The maximum recoating time is unlimited with the previous coat in optimal condition.

## CLEANUP & SAFETY

| | |
|---|---|
| **Cleanup** | Use clean potable water followed by a suitable solvent to dry the equipment. In case of spillage, absorb and dispose of in accordance with applicable local regulations. |
| **Safety** | Read and follow all cautionary warnings on this Product Data Sheet (PDS) and the Safety Data Sheet (SDS) for this product. Use normal safety precautions. Use adequate ventilation. Keep container closed when not in use. |

## PACKAGING, HANDLING & STORAGE

| | |
|---|---|
| **Shelf Life** | 12 months at 24°C (75°F) |
| **Shipping Weight (Approximate)** | Container: 20 litres (26kg). |
| **Storage Temperature & Humidity** | 4°C-35°C (40°F - 95°F)<br>0-90% Relative Humidity |
| **Flash Point (Setaflash)** | 93°C (200°F) |
| **Storage** | 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 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.