

## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Two component, acrylic, aliphatic polyurethane.
<b>Description</b>	<p><b>Carbothane 8812</b> is a fast dry, high gloss, high build, two component polyurethane coating. Carbothane 8812 exhibits the excellent dry times and handling characteristics required by Original Equipment Manufacturers. This coating has outstanding hardness, adhesion and resistance to: impact, marring, abrasion, chemicals and staining. Carbothane 8812 is recommended as a direct to metal finish coat or as a finish coat over properly primed substrates. Typical applications include air compressors, propane tanks, trailer chassis and frames, valves, pumps, waste water treatment plant equipment, agricultural equipment, hazardous material storage buildings and general industrial equipment. Not recommended for continuous immersion service.</p>
<b>Features</b>	<ul style="list-style-type: none"> <li>• VOC compliant – 3.3 pounds per gallon as supplied</li> <li>• Direct-To-Metal (DTM)</li> <li>• Fast Dry – 6-8 hours to handle at 75°F</li> <li>• High build, high gloss</li> <li>• Excellent abrasion resistance</li> <li>• Application by conventional, airless spray, HVLP or electrostatic</li> <li>• Excellent chemical resistance</li> <li>• Ambient air or force cure with conventional or infrared ovens</li> <li>• Suitable for use in USDA inspected facilities</li> </ul>
<b>Color</b>	1864 (White), S800 (White), 6666 (Safety Yellow), 1675 (Ignition Yellow), 5555 (Safety Red), C703 (Grey), C705 (Light Grey), C900 (Black). Other colors are available on request. Contact your Carboline Representative for availability.
<b>Finish</b>	High Gloss
<b>Primer</b>	Self-priming, epoxy, zinc rich epoxy or as recommended by Carboline.
<b>Dry Film Thickness</b>	3 - 5 mils (76 - 127 microns) per coat
<b>Solids Content</b>	By Volume 54% +/- 2%
<b>Theoretical Coverage Rate</b>	<p>866 ft<sup>2</sup>/gal at 1.0 mils (21.3 m<sup>2</sup>/l at 25 microns)  289 ft<sup>2</sup>/gal at 3.0 mils (7.1 m<sup>2</sup>/l at 75 microns)  173 ft<sup>2</sup>/gal at 5.0 mils (4.3 m<sup>2</sup>/l at 125 microns)  Allow for loss in mixing and application.</p>
<b>VOC Values</b>	<p><b>As Supplied</b> : 3.3 lbs/gal (395 g/l)  Thinner 25 : 6 oz/gal: 3.5 lbs/gal (419 g/l)</p> <p>These are nominal values.</p>
<b>Dry Temp. Resistance</b>	<p>Continuous: 200°F (93°C)  Non-Continuous: 250°F (121°C)</p> <p>Discoloration is observed above 180° (82°C).</p>

## 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.
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<b>Steel</b>	Abrasive blast to a commercial finish in accordance with SSPC-SP6 and obtain a 1½ - 2 mil (35-50 micron) blast profile.
<b>Phosphatized Steel</b>	Apply directly to dry, properly phosphatized substrate. Perform adhesion tests to insure proper, uniform and acceptable adhesion of 8812 direct to phosphatized metal substrate.
<b>Primed Surfaces</b>	Remove any oil or grease from the surface to be coated with Thinner #2 or Carboline Surface Cleaner #3 (Refer to Data Sheet) in accordance with SSPC-SP1.

### TYPICAL CHEMICAL RESISTANCE

Exposure	Fumes	Splashes & Spills
Acids	Excellent	Very Good
Alkalies	Excellent	Very Good
Salt	Excellent	Excellent
Solvents	Excellent	Very Good
Water	Excellent	Excellent

Note: For Splash/spillage for acids and alkalies certain colors may discolor.

Note: For Splash/spillage on solvents, resistance may vary dependent on the type of solvent involved.

### MIXING & THINNING

<b>Mixing</b>	For plural component application equipment follow the equipment manufacturer's instructions. For batch mixing, power mix part A separately, then combine and power mix thoroughly in the following proportions: THIS PRODUCT IS MOISTURE SENSITIVE. AVOID MOISTURE CONTAMINATION. DO NOT MIX PARTIAL KITS
<b>Thinning</b>	Normally not required. May be thinned up to 6 oz/gal (5%) with #25. Thinner #97 used when applying in very hot conditions. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.
<b>Ratio</b>	<p>4:1 (A to B)</p> <p><b>1 Gallon Kit</b></p> <p>Part A (8812): .8 gallons (in 1 gallon can)</p> <p>Urethane Converter 8800: 25.6 fluid oz.</p> <p><b>5 Gallon Kit</b></p> <p>Part A (8812): 4 gallons (in 5 gallon can)</p> <p>Urethane Converter 8800: 1 gallon</p>
<b>Pot Life</b>	2 Hours at 75°F (24°C) unthinned. Pot life decreases at higher temperatures. Pot life ends when coating becomes too viscous to use. This product is moisture sensitive. Avoid moisture contamination.

### 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.

<b>Spray Application (General)</b>	The following spray equipment has been found suitable and is available from manufacturers.
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<b>Conventional Spray</b>	Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, 0.070" I.D. fluid tip and appropriate air cap.
<b>Airless Spray</b>	Pump Ratio: 30:1 (min.)* GPM Output: 3.0 (min.) Material Hose: 3/8" I.D. (min.) Tip Size: 0.011-0.015" Output PSI: 2500-2800 Filter Size: 60 mesh *PTFE packings are recommended and available from the pump manufacturer.
<b>Electrostatic</b>	Contact Carboline for specific equipment recommendations.
<b>HVLP</b>	Contact Carboline for specific equipment recommendations.
<b>Brush &amp; Roller (General)</b>	Multiple coats may be required to obtain desired appearance, recommended thickness and adequate hiding. Avoid excessive re-brushing or re-rolling. For best results, tie-in within 10 minutes at 75°F (24°C).
<b>Brush</b>	Brushing is recommended for touch-up of small areas. Use natural bristle brush applying with full strokes.
<b>Roller</b>	Use a medium-nap synthetic roller cover with phenolic core.

## APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	35°F (2°C)	35°F (2°C)	10%
Maximum	130°F (54°C)	120°F (49°C)	95°F (35°C)	80%

Industry standards are for substrate temperatures to be 5°F (3°C) above the dew point.

**Caution:** This product is moisture sensitive in the liquid stage and until fully cured. Protect from high humidity, dew and direct moisture contact until fully cured. Application and/or curing in humidities above maximum, or exposure to moisture from rain or dew may result in loss of gloss and/or micro bubbling of the product.

## CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Touch	Final Cure General
75°F (24°C)	6 Hours	60 Minutes	7 Days

These times are based on a 4.0 mil (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.

**Note:** Product may be force cured.

Flash for 20 minutes @ 150°F (66°C) then oven dwell for 45 minutes followed by a 10 minute cool down. Or:

Flash for 20 minutes @ 180°F (82°C) then oven dwell for 30 minutes followed by a 10 minute cool down.

## CLEANUP & SAFETY

<b>Cleanup</b>	Use Thinner #2 or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
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### CLEANUP & SAFETY

<b>Safety</b>	Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions.
<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 supplied air 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, workmen should be required to use nonferrous tools and wear conductive and non-sparking shoes.

### PACKAGING, HANDLING & STORAGE

<b>Shelf Life</b>	Part A: Min. 36 months at 75°F (24°C) Part B: Min. 24 months at 75°F (24°C)  *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
<b>Storage Temperature &amp; Humidity</b>	40° - 110°F (4-43°C) 0-80% Relative Humidity
<b>Storage</b>	Store Indoors  This product is solvent based and not affected by excursions below these published storage temperatures, down to 10°F, for a duration of no more than 14 days. Always inspect the product prior to use to make sure it is smooth and homogeneous when properly mixed.
<b>Shipping Weight (Approximate)</b>	<b>1 Gallon Kit</b> Shipping Weight 8812 (Approximate): 15 lbs. (6 kg) Thinner 25: 8 lbs. (4 kg) Thinner 97: 8 lbs. (4 kg) <b>5 Gallon Kit</b> Shipping Weight 8812 (Approximate): 58 lbs. (22 kg) Thinner 25: 41 lbs. (19 kg) Thinner 97: 41 lbs. (19 kg)
<b>Flash Point (Setaflash)</b>	Part A: 58°F (14°C) Part B: 28°F (-2°C) Thinner 25: 90°F (32°C)

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## **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.