



# AMERLOCK 2K

## High Solids Epoxy Mastic Coating

**Data Sheet: 0002**

Supersedes 09/07

Revised 03/08

<b>Composition</b>	The premier two-pack, high solids, high build surface tolerant epoxy mastic coating for protection of steel and concrete against corrosion.			
<b>Uses and Properties</b>	<ul style="list-style-type: none"> <li>◆ Surface tolerant, self priming or suitable for application directly to most existing coatings.</li> <li>◆ Suitable for application directly to ultra high pressure hydro blasted surfaces.</li> <li>◆ Suitable for application directly to whip blasted or acid etched concrete.</li> <li>◆ Tolerant of prepared damp but not wet surfaces.</li> <li>◆ Encapsulates adherent rust remaining on prepared surfaces.</li> <li>◆ Can be overcoated with a wide range of topcoats where UV resistance required.</li> <li>◆ Low temperature cure down to 0°C</li> <li>◆ Fast drying times, recoat in 4 hours at 20°C.</li> <li>◆ Suitable for incidental food contact: (USDA approved)</li> <li>◆ Suitable as a tank lining for potable water (NSF Standard 61 CLD23), selected colours only. Refer PPG Protective and Marine Technical Service for details. Also suitable for salt water.</li> </ul>			
<b>Typical Applications</b>	For the protection of steelwork and steel structures in industrial facilities, bridges, tank exteriors, marine exposures, offshore, oil refineries, mines and smelters, pipe work, warehouses and small industrial factories. Also suitable for protection of concrete and as a finish for floors.			
<b>Typical Systems</b>	<b>Substrate</b>	<b>Surface Preparation</b>	<b>Typical Systems</b>	<b>Dft µm</b>
	Rusted steel, previously coated steel, new steel and galvanised steel	<p><i>For atmospheric exposure:</i> Minimum surface preparation: Power tool or hand tool clean or Abrasive Blast AS1627.4 Class 1. Ensure surface is free from all loose paint, rust, dust, dirt, oil, grease or soluble salts. ③ ①</p>	<p>1<sup>st</sup> Coat: AMERLOCK 2K 2<sup>nd</sup> Coat: AMERLOCK 2K (optional) ④</p>	<p>125-200 125-200</p>
		<p><i>For optimum service life in atmospheric exposure ∂:</i> Minimum surface preparation: Abrasive blast clean to AS.1627.4 Class 2 ½</p>	<p>1<sup>st</sup> Coat: D9 SB ZINC SILICATE or AMERCOAT 68K ② 2<sup>nd</sup> Coat: AMERLOCK 2K ④</p>	<p>65-75 125-200</p>
		<p><i>For atmospheric exposure where resistance to UV light is required.</i> Prepare surface as above.</p>	<p>1<sup>st</sup> Coat: AMERLOCK 2K 2<sup>nd</sup> Coat: AMERCOAT 450K, alt ISO-FREE 977 or PSX700 at 125 microns DFT.</p>	<p>125-200 50 - 75</p>
	New steel, to be immersed	Abrasive blast clean to AS.1627.4 Class 3.	<p>1<sup>st</sup> Coat: AMERLOCK 2K White 2<sup>nd</sup> Coat: AMERLOCK 2K White</p>	<p>150-200 150-200</p>
	Concrete	Acid etch or whip blast. Concrete must be cured minimum 14 days (Refer Concrete Preparation Guide).	<p>1<sup>st</sup> Coat: AMERLOCK 2K (reduce 20%) 2<sup>nd</sup> Coat: AMERLOCK 2K ④</p>	<p>150-200 150-200</p>
	Galvanised steel	Degrease, light abrasive blast.	<p>1<sup>st</sup> Coat: AMERLOCK 2K 2<sup>nd</sup> Coat: AMERCOAT 450K or alt ISO-FREE 977</p>	<p>100-150 50-75</p>
<p>① Service life is directly related to the quality of surface preparation.          ② Prime coats such as AMERCOAT 307, AMERCOAT 471, AMERCOAT 385P, AMERCOAT 182ZPK and AMERCOAT 474 may be used depending on exposure requirements.          ③ Water jet cleaned surfaces and wet abrasive blasted surfaces readily coated whilst still damp.          ④ For chalk resistance and colour retention on exterior exposure a finish coat of AMERCOAT 450K, ISO-FREE 977, PSX700 or PSX1001 should be used.</p>				

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<p><b>General Data</b></p> <p><b>Weathering</b></p> <p><b>Finish</b></p> <p><b>Chemical Resistance</b></p> <p><b>Solvent Resistance</b></p> <p><b>Abrasion Resistance</b></p> <p><b>Immersion</b></p> <p><b>Temperature Range</b></p> <p><b>Colour</b></p> <p><b>Topcoating</b></p> <p><b>Shelf Life</b></p>	<p>Chalks on exterior exposure but without detracting from corrosion protection.</p> <p>Semi gloss.</p> <p>Very good resistance to splash of alkalis, most chemicals and weak acids.</p> <p>Good resistance to most hydrocarbon solvents, distillates, oils and greases.</p> <p>Good: CS-17 wheel, 1Kg load/1000 cycles: weight loss 102 mg. (ASTM D4060)</p> <p>Suitable fresh water or sea water.</p> <p>Up to 93°C (dry heat), 38°C (wet heat).</p> <p>Most colours available.</p> <p>Normally not required in industrial service although for aesthetic reasons or exposure to UV light may be topcoated with two pack finishes such as AMERCOAT 450K, ISO-FREE 977 or PSX700 Polysiloxane or single pack PSX1001.</p> <p>12 months from date of shipment if stored indoors at 4°C to 38°C-Base and Hardener.</p>																								
<p><b>Application Data</b></p> <p><b>Theoretical Coverage</b></p> <p><b>Volume Solids</b></p> <p><b>Drying Time</b></p> <p><b>Maximum Recoat Time</b></p> <p><b>Mixing Ratio V/V</b></p> <p><b>Pot Life</b></p> <p><b>Mixing</b></p> <p><b>Thinners</b></p> <p><b>Equipment</b></p> <p><b>Safety Precautions</b></p>	<p>6.8 square metres per litre at 125 µm dry film thickness. (Wet film thickness 150 µm.) Material losses, during mixing and application, must be considered.</p> <p>85% ± 2% (theoretical). May vary depending upon colour.</p> <table border="1" data-bbox="542 863 1421 1098"> <thead> <tr> <th></th> <th>0°C</th> <th>10°C</th> <th>20°C</th> <th>30°C</th> </tr> </thead> <tbody> <tr> <td>Touch Dry</td> <td>18 hrs</td> <td>14 hrs</td> <td>3 hrs</td> <td>2 hrs</td> </tr> <tr> <td>Through Dry</td> <td>2 ½ days</td> <td>20 hrs</td> <td>5 hrs</td> <td>3 hrs</td> </tr> <tr> <td>Minimum Recoat Time</td> <td>2 days</td> <td>16 hrs</td> <td>4 hrs</td> <td>2.5 hrs</td> </tr> </tbody> </table> <p>Maximum recoat time at 20°C with itself and PSX700, 1 month. Polyurethane and PSX1001: 1 week. Iso-cyanate free acrylic 48 hrs and alkyd enamel 24 hours.</p> <p>1 part Base to 1 part Hardener by volume.</p> <p>1 hour @ 25°C (500 ml) NOTE: The figure quoted for pot life and drying/curing times are not definitive. They are dependent on site conditions, such as volume of material mixed, ambient and steel temperatures, weather and ventilation.</p> <p>Power stir the Base and Hardener, then add the Hardener to the Base with stirring. Allow to digest 10 minutes minimum before thinning.</p> <p>Use THINNER 737 for thinning when used over existing coatings. Use THINNER 304 otherwise or for equipment clean up.</p> <p><b>Brush:</b> Apply with minimal thinning. Do not rework. <b>Roller:</b> Thin with 304 and use medium nap roller. <b>Airless Spray:</b> Use a 0.431mm to 0.533 mm (.017 to .021") tip size and 12 to 14 MPa pressure. <b>Conventional Spray:</b> DeVilbiss JGA 502 GUN WITH "D" needle and fluid tip, 64 air cap, or equivalent. Use 200-270 kPa pot pressure and 400 kPa atomising pressure. Additional coats may be required for brush or roller application.</p> <p>Recommended only for application by experienced industrial operators in industrial coating operations. When applying by brush or roller, provide adequate ventilation. When applying by spray, users must comply with relevant spray painting regulations and wear appropriate respirator to avoid inhaling vapours and spray mist. Material Safety Data Sheet is available and should be consulted.</p>						0°C	10°C	20°C	30°C	Touch Dry	18 hrs	14 hrs	3 hrs	2 hrs	Through Dry	2 ½ days	20 hrs	5 hrs	3 hrs	Minimum Recoat Time	2 days	16 hrs	4 hrs	2.5 hrs
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