



# AMERLOCK 2K MIO

## High Solids Epoxy Mastic Coating

Data Sheet: 0002 MIO

Supersedes 03/05

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 for use in drinking water (NSF Standard 61 CLD23): selected colours only. Refer PPG PMC Technical Support for details.</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.		
<b>Typical Systems</b>	<b>Substrate</b>	<b>Surface Preparation</b>	<b>Typical Systems</b>	<b>Dft µm</b>
	Rusted steel, previously coated steel, weathered galvanised steel	<i>For atmospheric exposure:</i> Minimum surface preparation: ③ Power tool or hand tool clean or Class 1 Abrasive Blast AS1627.4. Ensure surface is free from all loose paint, rust, dust, dirt, oil, grease or soluble salts.	1 <sup>st</sup> Coat: AMERLOCK 2K MIO 2 <sup>nd</sup> Coat: AMERLOCK 2K MIO (optional) ① ④	125-200 100-200
	New steel	<i>For atmospheric exposure:</i> Minimum surface preparation: Abrasive blast clean to AS.1627.4 to Class 2 ½ ③	1 <sup>st</sup> Coat: AMERLOCK 2K MIO ② 2 <sup>nd</sup> Coat: AMERLOCK 2K MIO (optional) ① ④	100-200 100-200
	New steel, to be immersed	Abrasive blast clean to AS.1627.4 Class 3.	1 <sup>st</sup> Coat: AMERLOCK 2K MIO 2 <sup>nd</sup> Coat: AMERLOCK 2K MIO 3 <sup>rd</sup> Coat: AMERLOCK 2K MIO	150-200 150-200 150-200
	Galvanised steel	Degrease, light abrasive blast.	1 <sup>st</sup> Coat: AMERLOCK 2K MIO 2 <sup>nd</sup> Coat: AMERCOAT 2K MIO (optional) ①	100-200 100-200
	Aluminium	Degrease, light abrasive blast.	1 <sup>st</sup> Coat: AMERLOCK 2K MIO 2 <sup>nd</sup> Coat: AMERLOCK 2K MIO (optional) ①	100-200 100-200
	<p>① The shape and size of surfaces to be coated, the exposure conditions, and the method of application may allow adequate protection in one coat.</p> <p>② Prime coats such as D7 WB ZINC SILICATE or D9 SB ZINC SILICATE, AMERCOAT 68HS, AMERCOAT 471, AMERCOAT 385P, AMERCOAT 182ZPK and AMERCOAT 474 may be used depending on exposure requirements.</p> <p>③ Hydroblasted surfaces and wet abrasive blasted surfaces readily coated.</p> <p>④ For chalk resistance and colour retention on exterior exposure a finish coat of AMERCOAT 450K, AMERSHIELD, PSX 1001 or ISO-FREE 977 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>Natural Steel Grey. (Other colours batch quantities only).</p> <p>Normally none in industrial service although may be topcoated with two pack enamels such as AMERCOAT 450K, AMERSHIELD, PSX 1001 or ISO-FREE 977 for aesthetic reasons or exposure to UV light.</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 (@ 25°C)</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 sq.m. 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"> <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 1 month, polyurethane 1 week, iso-cyanate free 48 hrs and alkyd enamel 24 hours. Allowances should be made for moisture on surface at low temperatures.</p> <p>1 part Base to 1 part Hardener.</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. Use THINNER 304 for clean up.</p> <p>Airless Spray: Use a 0.431mm to 0.533 mm (.017 to .021") tip size and 12 to 14 MPa pressure.</p> <p>Conventional Spray: DeVilbiss JGA 502 GUN WITH "D" needle and fluid tip, 64 aircap, 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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