



AMERLOCK 400

High Solids Epoxy Mastic Coating

Data Sheet: 400

Supersedes 06/07

Revised 03/08

Composition	Two-pack, high solids, high performance maintenance coating for new or old steel.			
Uses and Properties	<ul style="list-style-type: none"> ◆ Surface tolerant self priming top coat. ◆ Self-priming topcoat over most existing coatings. ◆ Suitable for application onto ultra high pressure hydro-blasted surfaces. ◆ Compatible with prepared damp surfaces. ◆ Compatible with adherent rust remaining on prepared surfaces. ◆ Can be overcoated with a wide range of topcoats. ◆ Resists high humidity and moisture. ◆ Good chemical resistance to splash/spillage and fumes. ◆ Suitable for use in drinking water (AS 4020 and NSF Standard 61 CLD23): selected colours only. Refer PPG Protective and Marine Coatings Technical Service for details. ◆ Suitable for incidental food contact (USDA approved). ◆ Approved to APAS 2973, 2976 and 2977. 			
Typical Applications	For the protection of steel structures in industrial facilities, bridges, tank exteriors, marine weathering, offshore, oil tanks, piping, roofs, water towers			
Typical Systems	Substrate	Surface Preparation	Typical Systems	dft µm
	Rusted steel, previously coated steel, weathered galvanised Steel	<i>For atmospheric exposure:</i> Power tool or hand tool clean. Ensure surface is free from all loose paint, rust, dust, dirt, oil, grease or soluble salts.	1 st Coat: AMERLOCK 400 2 nd Coat: AMERLOCK 400(optional) ① ④	100-200 100-200
	New steel	<i>For atmospheric exposure:</i> Abrasive blast clean to AS.1627.4 to Class 2½. ③	1 st Coat: AMERLOCK 400 ② 2 nd Coat: AMERLOCK 400 (optional) ① ④	100-200 100-200
	New steel, to be immersed	Abrasive blast clean to AS.1627.4 Class 3.	1 st Coat: AMERLOCK 400 2 nd Coat: AMERLOCK 400 3 rd Coat: AMERLOCK 400	150-200 150-200 150-200
	Concrete	Acid etch or whip blast	1 st Coat: AMERLOCK 400 2 nd Coat: AMERLOCK 400	100-200 100-200
	Galvanised steel	Degrease, light abrasive blast or Acid etch.	1 st Coat: AMERLOCK 400 2 nd Coat: AMERLOCK 400(optional) ① ④	100-200 100-200
	Aluminium	Degrease, light abrasive blast or Acid etch or treat with chromate conversion coating.	1 st Coat: AMERLOCK 400 2 nd Coat: AMERCOAT 450K (optional)	100-200 60-75
<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 D9 SB ZINC SILICATE, AMERCOAT 68HS, AMERCOAT 385P, AMERCOAT 307, AMERCOAT 370 ZP, AMERCOAT 182ZPK and AMERCOAT 474 may be used depending on exposure requirements.</p> <p>③ Hydro-blasted and wet abrasive blasting readily coated.</p> <p>④ For improved chalk resistance and colour retention 2nd coat may be replaced with AMERSHIELD, AMERCOAT 450K, LUSTERTHANE 988 or ISO - FREE 977.</p>				
General Data				
Weathering Finish	Excellent. Chalks on exterior exposure without detracting from durability Semigloss.			
Chemical Resistance	Very good resistance to splash of acids, alkalis and chemicals.			
Solvent Resistance	Good resistance to most hydrocarbon solvents, distillates, oils and greases.			

<p>General Data cont.</p> <p>Abrasion Resistance</p> <p>Immersion</p> <p>Temperature Range</p> <p>Colour</p> <p>Topcoating</p> <p>Shelf Life</p>	<p>Good.</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 none, though may be topcoated with most other two pack finishes such as AMERSHIELD, AMERCOAT 450K, ISO-FREE 977, and LUSTERHANE 988.</p> <p>12 months from date of shipment if stored indoors at 4°C to 38°C – Base and Hardener.</p>																												
<p>Application Data</p> <p>Theoretical Coverage</p> <p>Volume Solids</p> <p>Drying Times</p> <p>Maximum recoat times (21°C and 50% R.H.)</p> <p>Mixing Ratio</p> <p>Pot Life</p> <p>Mixing</p> <p>Thinners</p> <p>Equipment</p> <p>Safety Precautions</p>	<p>6.8 square metres per litre at 125 µm dry film thickness depending on colour. (Wet film thickness 150 µm). Material losses during mixing and application will vary and must be considered when estimating requirements.</p> <p>85% ± 2% (theoretical).</p> <table border="1" data-bbox="560 504 1372 661"> <thead> <tr> <th></th> <th>10°C</th> <th>21°C</th> <th>32°C</th> </tr> </thead> <tbody> <tr> <td>Touch Dry</td> <td>28 hours (15)</td> <td>9 hours (4)</td> <td>4.5 hours (2)</td> </tr> <tr> <td>Through Dry</td> <td>40 hours (24)</td> <td>20 hours (9)</td> <td>12 hours (5)</td> </tr> <tr> <td>Min. recoat time</td> <td>30 hours (16)</td> <td>24 hours (6)</td> <td>8 hours (4)</td> </tr> </tbody> </table> <p>Note: Accelerated drying times are given in brackets, i.e. 2.5% addition of Amercoat 861 Accelerator (by volume). <i>Note: Amercoat 861 Accelerator will slightly discolour Amerlock White and pastel colours</i></p> <table border="1" data-bbox="560 724 1364 987"> <tbody> <tr> <td>Amerlock 400 with itself</td> <td>3 months</td> </tr> <tr> <td>Amerlock 400 + 861 Accelerator with Amerlock 400</td> <td>1 month</td> </tr> <tr> <td>Amerlock 400 with Amershield or Amercoat 450K</td> <td>1 month</td> </tr> <tr> <td>Amerlock 400 + 861 Accelerator with Amershield or Amercoat 450K</td> <td>2 weeks</td> </tr> <tr> <td>Amerlock 400 + Iso-Free 977</td> <td>1 week</td> </tr> <tr> <td>Amerlock 400 + Amercoat 5401 Enamel</td> <td>1 day</td> </tr> </tbody> </table> <p><i>Note: Drying times are dependent on air and surface temperatures as well as film thickness, ventilation and relative humidity. Maximum recoating time is highly dependent on actual surface temperatures – not simply ambient air temperatures. Surface temperatures should be monitored especially with sun-exposed or otherwise heated surfaces. Higher surface temperatures shorten the maximum recoat window. When maximum recoat time is exceeded, abrade and solvent wipe the surface before recoating.</i></p> <p>1 part Base to 1 part Hardener by volume.</p> <p><i>Note: Do not use Amerlock 400 Aluminium hardener with this product.</i></p> <p>2 hours @ 25°C. (1 hour with addition of 861 Accelerator at 2.5% by volume).</p> <p><i>NOTE: The figures 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 equipment temperatures, weather and ventilation.</i></p> <p>Power stir the Base and Hardener, then add the Hardener to the Base with stirring. Allow to digest 10 minutes maximum before thinning (if required) and using.</p> <p>Use THINNER 737 or THINNER 4 for thinning (depending on conditions). Use THINNER 304 or THINNER 4 for clean up.</p> <p><i>Airless Spray:</i> Use a 0.431mm to 0.533 mm (.017 to .021") tip size and 12 to 14 MPa pressure.</p> <p><i>Conventional Spray:</i> 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.</p> <p>Brush or roller: Application may need additional coats to achieve required DFT.</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>		10°C	21°C	32°C	Touch Dry	28 hours (15)	9 hours (4)	4.5 hours (2)	Through Dry	40 hours (24)	20 hours (9)	12 hours (5)	Min. recoat time	30 hours (16)	24 hours (6)	8 hours (4)	Amerlock 400 with itself	3 months	Amerlock 400 + 861 Accelerator with Amerlock 400	1 month	Amerlock 400 with Amershield or Amercoat 450K	1 month	Amerlock 400 + 861 Accelerator with Amershield or Amercoat 450K	2 weeks	Amerlock 400 + Iso-Free 977	1 week	Amerlock 400 + Amercoat 5401 Enamel	1 day
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