AMERCOAT®

Protective Coatings

Amerlock 2C

Fast drying high solids epoxy

Amerlock Series

Product Data/ Application Instructions

- **Fast drying and rapid re-coating times**
- **Low temperature curing down to 0°C/32ºF**
- **Compatible with prepared damp surfaces**
- **Surface tolerant and abrasion resistant**
- **Adheres to most types of existing coatings**
- **If required, Amerlock 2C can be overcoated with a wide range of topcoats**
- **Also available with MIO pigmentation**

Amerlock 2C is a high solids epoxy coating used for maintenance of steel and concrete surfaces. Amerlock 2C may be applied directly to bare steel and can also be applied to most types of primers or existing coating systems. Amerlock 's low solvent level reduces the risk of solvent entrapment at the substrate-coating interface.. However, for enhanced UV resistance it may be topcoated with a wide range of different topcoats. Contact your PPG representative for specific recommendations.

Outstanding Characteristics

Amerlock 2C can be used as a high performance maintenance coating with excellent adhesion to a wide range of existing coatings. Amerlock 2C can be applied to mechanically cleaned surfaces. Adhesion is excellent to a wide variety of substrates, including concrete and non-ferrous surfaces. Amerlock 2C has excellent application characteristics. It can be applied by conventional and airless spray equipment, brush or roller. Contact your PPG representative for specific information.

Typical Uses

Amerlock 2C is designed for use in a variety of areas, even those where only limited surface preparation is possible. As a maintenance coating, Amerlock 2C protects steel structures in industrial facilities, bridges, tank exteriors, marine weathering, offshore, oil tanks, piping, roofs, water towers and other facilities operating in highly corrosive environments. Amerlock 2C has good resistance to chemical splashes, spillages and fumes. Amerlock 2 C is also suitable for immersion service in fresh and salt water.

Typical systems using Amerlock 2C I

First coat	Finish Coat
Amerlock 2 C	None
Amerlock 2 C	Amerlock 2C
Amerlock 2 C	Amercoat 450S
Amerlock 2 C	Amershield
Amerlock 2 C	PSX 700
Amerlock 2 C	PSX 1001

Physical Data

Finish	semi-gloss
Colour	RAL and BS colours *
MIO version	Light grey (RAL 7035) Grey aluminium (RAL 9007)
Components	2
Mixing ratio (by volume)	
Amerlock 2/400 resin	1 part
Amerlock 2C cure	1 part
Curing mechanism	solvent release and chemical reaction between components
Volume solids	88% (ISO 3233)**VOC***
EC SED 1999/13/EC	114 g/kg (163 g/l)
UK PG6/23(92)Appendix 3	106 g/l (0.-9 lbs/gal
Dry film thickness	100 - 200 µm (4 - 8 mils) per coat
Number of coats	1 – 2****
Theoretical coverage	8.8 m^2/l (358 ft^2/gal) at 100 µm (4 mils) Allow for application losses, surface irregularities, etc.
Thinner	Thinner 21-06
Cleaner	Thinner 90-58

Flash points (Closed Cup)	°C	°F
Amerlock 2/400 resin	43	109
Amerlock 2C cure	26	79
Thinner 21-06	24	75
Thinner 90-58	24	75

. * Surface discoloration may occur upon exposure to sunlight, elevated temperatures or chemicals. However, this does not impact performance.
** Volume solids measured in accordance with ISO 3233. Slight variation, circa 3% may occur due to colour and testing variances.
*** VOC figures are quoted according to both the EC directive 1999/13/Ec which are theoretically calculated figures and the UK PG6/23(92) Appendix 3 which are practically determined figures.
**** Brush or roller application may require additional coat

Approvals and Certificates

Systems using Amerlock 2C carry a number of approvals and certifications, such as:

- "F0" classification for testing against NF X 70-100 and NF X 10-702 (smoke emission thermal decomposition) with suitable primer system;
- "M1" classification for testing against NF P 92-510 (Heat radiation test) with suitable primer system;
- Complies with IMO Resolution A653(16) / MSC 61 (67): Surface flammability of bulkhead, ceiling and deck finish materials;
- Approved for the storage of grain by the NHS (Newcastle Occupational Health Institute);
- Approved by Transneft for the external protection of land storage tanks;
- Approved by the Russian Maritime Register as hull coating and for protection of cargo holds.

Please contact your PPG representative for specific approvals and / or certifications.

Chemical Resistance

Environment suitability of Amerlock 2C

	Splash and Spillage	Fumes and Weathering
Acidic	Fair	Good
Alkaline	Excellent	Excellent
Solvents	Excellent	Excellent
Salt solutions		
Acidic	Good	Very Good
Neutral	Excellent	Excellent
Alkaline	Excellent	Excellent
Water	Excellent	Excellent

This chart is only a guide to show typical resistance of Amerlock 2C. Contact your PPG representative for your specific requirements.

Surface Preparation

Coating performance in general, is proportional to the degree of surface preparation. Abrasive blasting is usually the most effective and economical method. For circumstances where this is impossible or impractical, Amerlock 2C can be applied over mechanically cleaned surfaces. All surfaces must be clean, dry and free of all contaminants, including salt deposits.
STEEL, NON-IMMERSION – Blast-clean to Sa 2 ½ (ISO-8501-1) or SSPC-SP-10. Amerlock 2C can also be applied over mechanically cleaned surfaces. Remove water, salt, dirt, oil, loose rust and all rust scale. Power tool clean in accordance with St 3 or SSPC SP-3 or hand tool clean in accordance with St 2 or SSPC SP-2. UHPWJ in accordance with WJ2L (SSPC-VIS-4) is also acceptable. For long term performance in severe environments, drying, abrasive blasting to Sa 2½ or SSPC - SP10 is the recommended method for surface preparation.
STEEL, IMMERSION - Remove water, salt, dirt, oil, loose rust and all rust scale. Blast to achieve Sa 2½ or SSPC SP-10.
CONCRETE - Surfaces must be cured, clean, dry and free of non adherent coatings and disintegrated or chalky materials.
Aluminum – Remove oil, grease or soap film with neutral detergent or emulsion cleaner, treat with Alodine® 1203, or equivalent or lightly blast with fine abrasive.
Galvanizing – Remove oil or soap film with detergent or emulsion cleaner, then use zinc treatment such as Amercoat 59TW or equivalent or blast lightly with fine abrasive.
EXISTING COATINGS - Amerlock 2C may be used over most types of properly cleaned, tightly adhering aged 2 pack coatings.. For single pack coatings, extra precautions are necessary. It is always recommended a test patch is applied to ensure long-term capability, as performance will depend on condition of the existing coating such as age, adhesion and film thickness.

Application Data

Substrate ..... steel, concrete, non-ferrous or tightly adhering existing coatings

Application methods ..... by airless or conventional spray, brush or roller***

Environmental conditions

Air temperature	0° to 50°C	32 - 122°F
Surface temperature	0° to 60°C	32 - 140°F

Surface temperature must be at least 3°C/°F above dew point to prevent moisture condensation on the surface.

Potlife (°C/°F)	5/41	10/50	20/68
	3 hr	2 hr	1 hr

Drying Times at 125 µm dft(°C/°F)	5/41	10/50	20/68	30/86
dry through.....	24 hr	16 hr	5 hr	3 hr
fully cured	21 days	14 days	7 days	4days

Recoat or topcoat times at 21°C (70°F)

.....	5/41	10/50	20/68	30/86
Minimum	24 hr	14 hr	6 hr	3 hr
	Maximum *		extended	

Note: If maximum time is exceeded, roughen surface.

* Amerlock 2C has an extended maximum overcoating time. Surfaces to be overcoated must be clean and dry. Any contamination must be identified and adequately removed. Particular attention must be paid to surfaces that have been exposed to heat and/or sunlight and where chalking may be present. A degree of surface cleaning will be required. Your PPG representative can advise on suitable cleaning methods

Application Equipment

The following equipment is listed as a partial guide and suitable equipment from other manufacturers may be used. Adjustments of pressure and change of tip size may be needed to achieve the proper spray characteristics.
AIRLESS SPRAY - Standard airless spray equipment with a 0.48 mm (0.019 inch) fluid tip or larger.
CONVENTIONAL SPRAY - Industrial equipment having a moisture and oil trap in the main air supply line, a pressure material pot with mechanical agitator and separate regulators for air and fluid pressure are recommended.
MIXER - Use power mixer powered by an air motor or explosion proof electric motor.
BRUSH OR ROLLER - Apply evenly, using a clean well-loaded brush or roller. Ensure the coating is not brushed or rollered-out too far. Application by brush or roller will require at least 2 coats to achieve 125 µm (5 mils) dry film thickness.

Application Procedure

Amerlock 2C is packaged in two components in the proper proportions which must be mixed together before use.

Amerlock 2/400 Resin	10 l in 20 l can
	2.5 l in 5 l can
Amerlock 2C Cure	10 l in 10 l can
	2.5 l in 2.5 l can

1. Flush equipment with recommended cleaner before use.
2. Stir both resin and cure to an even consistency with a power mixer.
3. Add cure to resin, and continue stirring until homogeneous.
4. For conventional spray, thin only as needed for workability with no more than 10% by volume of recommended thinner. Thinning is normally not needed for airless spray.
5. Apply a wet coat in even parallel passes. Overlap each pass 50% to avoid bare areas, pinholes or holidays. Give special attention to corners, welds, rough areas, edges.
6. Normal recommended dry film thickness per coat is 100 to 200 µm (4 - 8 mils). Maximum dry film thickness per coat should not exceed 250 µm (10 mils) per coat.
7. The application of a wet film thickness of 115 to 225 µm (4.6 - 9 mils) will normally provide 100 to 200 µm (4 - 8 mils) of dry film.
8. Check thickness of dry coating with a non destructive dry film thickness gauge such as Mikrotest or Elcometer. If less than specified thickness, apply additional material as needed.
9. Small damaged or bare areas and random pinholes or holidays can be touched up by brush.
10. Clean all equipment with recommended cleaner immediately after use or at least at the end of each working day or shift. When left in spray equipment, Amerlock 2C will cure and cause clogging

Shipping Data

Packaging

Amerlock 2/400 resin	10 l (2.6 gal) in a 20 l can
	2.5 l (0.7 gal) in 5 l can
Amerlock 2C cure	10 l (2.6 gal) in a 10 l can
	2.5 l (0.7 gal) in 2.5 l can

Shipping weight

Amerlock 2/400 resin	approx. 17 kg
	approx. 4.3 kg
Amerlock 2C cure	approx. 15 kg
	approx. 3.7 kg

Minimum shelf life ..... 1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C (41 - 104°F).

Safety
Since improper use and handling can be hazardous to health and cause of fire or explosion, safety precautions included with Product Data/Application Instruction and Material Safety Data Sheet must be observed during all storage, handling, use and drying periods.

Warranty
PPG warrants its products to be free from defects in material and workmanship. PPG's sole obligations and Buyer's exclusive remedy in connection with the products shall be limited, at PPG's option, to either replacement of products not conforming this warranty or credit to Buyer's account in the invoiced amount of the non-conforming products. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

PPG makes no other warranties concerning the product. No other warranties, whether express, implied or statutory, such as warranties of merchantability or fitness particular purpose, shall apply. In no event shall PPG be liable for consequential or incidental damages.

Any recommendations or suggestion relating to the use of the products made by PPG, whether in its technical literature, or response to specific enquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyer's having requisite skill and know-how in the industry, and therefore it is Buyer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results.

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To avoid any confusion that may arise through translation into other languages, the English version of the Product Data/Application Instructions will be the governing literature and must be referred to in case of deviations with product literature in other languages.

Condition of Sale
All our transactions are subject to our Terms and Conditions of Sale.