

Amerlock Sealer

Solvent Free Rust Penetrating Epoxy Sealer

Product Data/ Application Instructions

- Solventfree sealer and tiecoat
- Penetrates rust and adheres to aged coatings
- Compatible with old coatings
- Low dry film thickness required
- Accepts broad range of topcoats
- Compatible with damp substrates
- Resists high humidity and moisture
- Primer for concrete surfaces
- Curing compound for new concrete

Typical Uses

Amerlock Sealer is a penetrating sealer for marginally prepared steel and aged coatings. Its low viscosity and excellent wetting properties allow it to penetrate rust and discontinuities in existing coatings, which in turn improves adhesion at subsequent topcoats. Amerlock Sealer has excellent resistance to corrosive environments.

Amerlock Sealer is also used as a concrete primer/ sealer and as a concrete curing compound. When used as a concrete curing compound, Amerlock Sealer is applied to concrete slabs immediately after pouring and finishing, or to formed concrete surfaces as soon as the forms are removed (three days after initial pour). Concrete must cure a minimum of 14 days (total) prior to topcoating with epoxy surfaces or coatings.

Typical Systems Using Amerlock Sealer

First coat	Second coat	Third coat
Amerlock Sealer	Amercoat 235, 370, 385, Amerlock 2C, 400C or PSX 700.	Amercoat 450 Series, Amershield or none.
Amerlock Sealer	Nu-Klad 114A, 100A or 800 Series.	Amerlock 2, 400 or none.

Physical Data

Finish	gloss
Colour	clear
Components	2
Mixing ratio (by volume)	
resin	1 part
cure	1 part
Curing mechanism	chemical reaction between components
Volume solids	100%
VOC	0%
Dry film thickness	40 µm (1.6 mils) per coat
Number of coats	1
Calculated coverage	25 m ² /l at 40 µm 986 ft ² /gal at 40 µm

Allow for application losses, surface irregularities, etc.

Induction time (at 20°C/68°F)	not required	
Specific gravity	approx. 1.1 kg/l (mixed product)	
Flash points (Closed Cup) .	°C	°F
resin	>100	>212
cure	>100	>212
Amercoat 65	24	75
Amercoat 12.....	24	75

Thinner

Cleaner

Amerlock Sealer

Surface Preparation

Amerlock sealer is designed for less than ideal surface preparation. However, performance will be improved as surface preparation improves. Amerlock Sealer may be used over most properly prepared and tightly adhering coatings. A test patch is recommended for use over existing coatings to ensure compatibility.

Steel - Remove all loose rust, dirt, moisture, grease or other contaminants from surface. Power or hand tool clean ISO 8501-1 St3 or SSPC-SP3. For more severe environments, dry abrasive blast ISO 8501-1 SA1 or SSPC-SP7 or better. Water blasting is also acceptable.

Galvanizing - Remove oil, grease with detergent or emulsion cleaner, treat surface with a zinc treatment like Amercoat 59 or blast lightly with fine abrasive.

Aluminium - Remove oil, grease or soap film with neutral detergent or emulsion cleaner, treat with Alodine® 1200, Alumiprep® or equivalent or power tool clean or blast lightly with fine abrasive.

Concrete – All surfaces to be coated must be strong and sound, contain no additives or hardeners, and should not be treated with sealers or conventional curing compounds containing waxes, silicones, or silicates. New slabs (horizontal surfaces) should have a float finish or broom finish as described in ACI Specification 301. Finishing shall be within Class A tolerance, when using Amerlock Sealer as a concrete curing compound and applying epoxy surfacing. For existing slabs with a trowelled finish, see 'Primer' below.

Primer - Water-cured concrete or existing structures must be cured a minimum of 14 days and have attained 80 percent of its final strength. When cured, surface must either be prepared per ASTM D4259 or ASTM D4260 with muriatic acid using equal parts of acid to water by volume. A suitably finished surface must have a uniform surface texture exposing fine aggregate resembling coarse sandpaper. If required, repeat acid etching or abrasive blasting until the surface texture is uniform. Concrete surfaces cured with conventional curing compounds or contaminated with form oils must be completely cleaned by ASTM D4259. Acid etching is not acceptable, as it will not normally remove these contaminants.

Curing compound - Formed surfaces should be adequately vibrated to minimize air pockets and holes. Suitable form facing material should be used to produce a smooth form finish as described in ACI Specification 301. Do not use form release agents based on oils, which will deposit a residue on the concrete. When Amerlock Sealer is used as a curing compound the forms should be removed within three days and the Amerlock Sealer applied immediately. New concrete which will be cured with Amerlock Sealer does not require blasting or etching. Remove fins and projections from formed concrete, and ensure that all surfaces are free from oil or contaminants. Cure concrete a minimum of 14 days prior to applying epoxy surfacing. When applying epoxy surfacing the Amerlock Sealer must be roughened when maximum topcoat time is exceeded. Apply as soon as possible after pouring and finishing the concrete.

Application Data

Substrate	Prepared steel or concrete, galvanizing, stainless steel, aluminium or aged coatings			
Application methods	by airless or conventional spray, brush or roller			
Drying and recoat times (hours, °C/°F)				
	0/32	10/50	20/68	30/86
Dry to touch	28	18	12	8
Dry hard	52	36	28	22
To topcoat (minimum).....	38	30	24	18
To topcoat (maximum).....	-----1 month -----			

Roughen surface if maximum recoat or topcoating time is exceeded

Potlife (minutes °C/°F).....	10/50	20/68	30/86
	100	60	35

Potlife and drying times are dependent on temperature.



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Mixing and Thinning

Amerlock Sealer is a two component product supplied in 20 or 5 l kits which contain the proper ratio of ingredients. The entire contents of each container must be mixed together. Add the cure portion to the resin slowly with continued agitation and mix slowly until homogeneous. Thinning is normally not necessary.

Application Equipment

Standard industrial spray equipment, brush or roller.

Application Procedure

Provide good ventilation. Apply Amerlock sealer by spray, brush or roller. For airless spray use a low pressure and 0.38- 0.53 mm orifice (0.013-0.021 inch) Amerlock Sealer is low in viscosity. It should be applied in one thin, wet coat sufficient to completely cover and penetrate the surface. Do not apply heavy coats, areas where the material has puddle must be brushed out. Clean up application equipment with recommended cleaner. Apply one coat of Amerlock Sealer at 25 to 40 µm; allow overnight cure. An additional coat of Amerlock Sealer may be required for very porous surfaces. After the indicated minimum topcoat time, Amerlock Sealer may be overcoated even if still tacky. Clean all equipment with thinner or Amercoat 12 immediately after use.

On slabs, puddled areas of water must not remain. On formed surfaces no running water may be evident.

Primer - When used over acid-etched concrete apply immediately after water rinsing. Abrasive blasted concrete must be thoroughly cleaned to remove all loose material, then may be moistened with water. A damp surface aids in primer/sealer penetration into the surface. Brush out any primer/sealer which puddles in low areas on slabs (horizontal) or runs or sags on formed surfaces (vertical) during application. After overnight curing, coated surface may vary in appearance. Areas which appear to have no evidence of primer/sealer indicate a high porosity. In these areas, a second application is recommended. Surfaces not properly primed or sealed may result in bubbling of surface. Avoid thick glossy areas of Amerlock Sealer. Roughen these areas prior to topcoating.

Curing compound - When used as a curing compound, Amerlock Sealer must be applied to slabs (horizontal) immediately after the final finishing operation or upon disappearance of the "sheen" of surface moisture. On formed surfaces (vertical), apply immediately after form removal. (Forms should be removed within three days after concrete is poured.) If there is any drying or appreciable loss of moisture, spray the surface with water and allow to reach a uniform damp condition with no excess water on the surface. Immediately after use, clean all application equipment with Amercoat 12.

Shipping Data

Packaging 20 l

resin 10 l (2.6 gal) in a 20 l can
cure 10 l (2.6 gal) in a 10 l can

Shipping weight

resin approx. 14 kg
cure approx. 12 kg

Packaging 5 l

resin 2.5l (0.66 gal) in a 5 l can
cure 2.5 l (0.66 gal) in a 2.5 l can

Shipping weight

resin approx. 3.5 kg
cure approx. 2.9 kg

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



Amerlock Sealer

Caution

Use with adequate ventilation. Avoid prolonged and repeated contact with skin. If used in confined areas, observe the following precautions to prevent hazards of fire or explosion or damage to the health:

1. circulate adequate fresh air continuously during application and drying;
2. use fresh air masks and explosion proof equipment;
3. prohibit all flames, sparks, welding and smoking.

Do not empty into drains. Take precautionary measures against static discharges. For specific information on hazardous ingredients, required ventilation, possible consequences of contact, exposure and safety measures see Safety Data Sheet.

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.

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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.

