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 use

Typical Systems Using Amerlock Sealer

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

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).

PHYSICAL DATA

Colours	clear – gloss
Components	2
Curing mechanism	Chemical reaction between components
Volume solids	100%
VOC (Supplied)	max. 0 g/kg
Number of coats	1
Mass density	1.1 g/cm³ (mixed product)
Theoretical spreading rate	25 m²/l (1019 ft²/gal) for 40 µm

Concrete must cure a minimum of 14 days (total) prior to topcoating with epoxy surfaces or coatings.

INSTRUCTIONS FOR USE

Induction time
not applicable
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, oil and grease or other contaminants from the 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 neutral Oil Cleaner 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.

Application Data

CLEANING SOLVENT
Thinner: Thinner 21-06
Cleaner: Thinner 90-58

OVERCOATING

Drying and recoat times

substrate temperature	0°C/ 32°F	10°C/ 50°F	20°C/ 68°F	30°C/ 86°F
Dry to topcoat minimum interval	38 hours	30 hours	24 hours	18 hours
Dry to topcoat maximum interval	1 month			
Dry to touch minimum interval	28 hours	18 hours	12 hours	8 hours
minimum interval	52 hours	36 hours	28 hours	22 hours

Roughen surface when maximum recoat or topcoating time is exceeded

50 °F (10°C)	100 minutes
70 °F (21°C)	60 minutes
90 °F (32°C)	30 minutes

potlife notes: Potlife and drying times are dependent on temperatures

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 compounds.
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.

Equipment
Standard indrustrial spray equipment, brush or roller.

Data Summary
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.

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 minium topcoat time, Amerlock Sealer may be overcoated even if still tacky.
Clean all equipment with thinner or
Amercoat 12 immediately after use.
On slabs, puddle 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 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 (horizontals) or runs or sags on formed surfaces (verticals) during application.
After overnight curing, the 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 (horizontals) immediately after the final finishing operation or upon disappearance of the “sheen” of surface moisture.
On formed surfaces (verticals), 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 mixing equipment and application tools with Thinner 90-58

SAFETY PRECAUTIONS

- 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.

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