



# Amerlock® 2/400GFK



*High-solids glass flake epoxy coating*

*Amerlock Glass Flake Epoxy Series*

## Product Data/ Application Instructions

- High-build glassflake epoxy coating
- High-performance coating for new or old steel
- Can be overcoated with wide range of topcoats
- Compatible with prepared damp surfaces
- Cures through wide temperature range
- Up to 20 mils in a single coat
- Resists high humidity and moisture
- Suitable for sea water immersion
- Low VOC, high solids
- Resistance to 450°F on insulated or uninsulated surfaces

### Typical Uses

As a maintenance or new construction coating Amerlock 2/400GFK protects both steel and concrete structures in severe environments, including marine structures, petroleum processing and storage facilities. On offshore platforms, Amerlock 2/400GFK is suitable for use in splash and tidal zones, under-deck areas and helidecks as well as sub-sea facilities.

Amerlock's low solvent level reduces the chances for film pinholing and solvent entrapment at the substrate-coating interface, often a major cause of coating failure with conventional epoxies and lower solids systems.

Adhere to all instruction, precautions, conditions and limitations during storage, handling application and drying periods to obtain maximum performance. For conditions outside the requirements or limitations described, contact your Ameron representative.

### Surface Preparation

Coating performance is, in general, proportional to the degree of surface preparation. Abrasive blasting is usually the most effective and economical method. When this is impossible or impractical, Amerlock 2/400GFK can be applied over mechanically-cleaned surfaces.

Amerlock 2/400GFK may be used over most types of properly prepared, tightly adhering coatings. A test patch is recommended over existing coatings.

**Steel** – Remove all loose rust, dirt, moisture, grease or other contaminants. Power-tool clean, SSPC-SP3 or hand-tool clean, SSPC-SP2. For more severe environments, dry abrasive blast, SSPC-SP7. UHP water-jetting per SSPC-SP12, WJ-2L, is also acceptable. For high-heat applications on uninsulated substrates, abrasive blast per SSPC-SP6. For insulated substrates, abrasive blast per SSPC-SP10. In both cases, a 2-3 mil profile must be obtained.

**Concrete** – Acid etch (ASTM D4260) or abrasive blast (ASTM D4259) new concrete.

**Galvanizing** – Remove oil or soap film with detergent or emulsion cleaner, Galvaprep® or blast lightly with fine abrasive.

**Aluminum** – Remove oil, grease or soap film with neutral detergent or emulsion cleaner; treat with Alodine® 1200, Alumiprep® or equivalent or blast lightly with fine abrasive.

### Physical Data

Finish	Flat		
Color	See color card		
<i>Amerlock 2/400GFK has shade differences from the standard Ameron color card.</i>			
Components	3		
Curing mechanism	Solvent release and chemical reaction between components		
Volume solids (ASTM D2697 modified)	84% ± 3%		
Dry film thickness (per coat)	8-20 mils (200-500 microns)		
Coats	1		
Theoretical coverage	ft <sup>2</sup> /gal	m <sup>2</sup> /L	
1 mil (25 microns)	1347	33	
8 mils (200 microns)	168	4.1	
20 mils (500 microns)	67	1.6	
VOC	lb/gal	g/L	
mixed	1.4	172	
mixed/thinned	1.8	213	
Temperature resistance,		wet	dry
	F°	C°	F° C°
continuous	100	38	425 218
intermittent	100	38	450 232

*Some discoloration and darkening will occur at temperatures greater than 200°F, this will not affect film integrity or coating performance*

Flash point (SETA)	°F	°C
2/400 resin	131	55
400 cure	85	29
2 cure	114	46
Amercoat 65	81	27
Amercoat 8	20	-7
Amercoat 12	2	-17

### Application Data

Applied over	Steel, concrete, galvanizing aluminum		
Surface preparation			
steel	SSPC-SP2, 3, 6, 7 or 10		
concrete	ASTM D4259 or 4260		
galvanizing	Galvaprep® or light abrasive blast		
Aluminum	Alodine®, Alumiprep® or light abrasive blast		
Method	Airless or conventional spray.		
Mixing ratio	As packaged, mix full kits only.		
Pot life (hours)	°F/°C		
	90/32	70/21	50/10
Mixed kit			
400 GFK	1	2½	4
2 GFK	½	¾	1½
Environmental conditions			
Temperature	°F	°C	
air and surface	23 to 120	0 to 50	
material	50°F (10°C) minimum		

Surface temperatures must be at least 5°F (3°C) above dew point to prevent condensation. At freezing temperatures, surface must be free of ice.

## Application Equipment

The following is a guide; suitable equipment from other manufacturers may be used. Changes in pressure, hose and tip size may be needed for proper spray characteristics.

**Airless spray** – Standard equipment with 30:1 pump ratio minimum (when temperature above 80°F) or 45:1 pump ratio or larger (when temperature is below 80°F), with surge tank filters removed. Graco Hydra-Mastic gun 207-300 and tip 0.035-inch or larger, with a 3/8- to 1/2-inch spray hose.

**Conventional spray** – Mastic gun such as Binks 7E2 with 64 x 191 nozzle, or Binks 18D with 69C x 191 nozzle.

**Power mixer** – Jiffy Mixer powered with an air-or explosion-proof motor.

## Application Procedures

1. Flush equipment with thinner or Amercoat 12 before use.
2. Stir resin to disperse pigments.
3. Add Amerlock cure to resin. Mix thoroughly until uniformly blended to a workable consistency. Add Amercoat 880 Glassflake and disperse to a uniform consistency.
4. Do not mix more material than can be used within the expected pot life.
5. For optimum application material should be from 50 to 90°F (10 to 32°C). Above 110°F (43°C) sagging may occur.
6. Use only Ameron recommended thinners. Above 85°F (29°C) use Amercoat 8; at lower temperatures use Amercoat 65. A small amount of thinner greatly reduces viscosity. Excessive thinning will cause running or sagging. Thin as follows:

**Airless** – no more than 1/4 pint (30 ml/L) of Amercoat 8 or 65 per gallon.

**Conventional** – no more than 1/2 pint (60 ml/L) of Amercoat 8 or 65 per gallon.

7. Apply in even, parallel passes; overlap 50 percent to avoid holidays, bare areas and pinholes. If required, cross spray at right angles.
8. Ventilate confined areas with clean air between coats and during curing periods following final coat. Ventilating air temperature and relative humidity must be such that condensation will not form on the surface between coats.
9. Repair any damaged areas by brush or spray.
10. Clean equipment with thinner or Amercoat 12 immediately after use.

## Safety Precautions

Read each component's material safety data sheet before use. Mixed material has hazards of each components.

***This product is for industrial use only. Not for residential use.***

## Limitation of Liability

Ameron's liability on any claim of any kind, including claims based upon Ameron's negligence or strict liability, for any loss or damage arising out of, connected with, or resulting from the use of the products, shall in no case exceed the purchase price allocable to the products or part thereof which give rise to the claim. **In no event shall Ameron be liable for consequential or incidental damages.**

**Due to Ameron's policy of continuous product improvement, the information contained in this Product Data/Application Instructions sheet is subject to change without notice. It is the Buyer's responsibility to check that this issue is current prior to using the product. For the most up-to-date Product Data/Application Instructions always refer to the Ameron International Performance Coatings & Finishes website at [www.ameroncoatings.com](http://www.ameroncoatings.com).**

Recoat/Topcoat time	°F/°C		
Minimum (hours)	90/32	70/21	50/10
Mixed kit with 400 cure	8	16	30
Mixed kit with 2 cure	4	7	16
Maximum time			
Mixed kit with 400 cure	3 months		
Mixed kit with 2 cure	1 month		

*Drying times are dependent on air and surface temperatures as well as film thickness, ventilation and relative humidity. Maximum recoating time is highly dependent upon 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.*

	Drying time (ASTM D1640) @ 8 mils (hours)			
	°F/°C°			
	90/32	70/21	50/10	32/0
Mixed kit with 400 cure				
touch	4 1/2	9	28	96
through	12	20	40	140
Mixed kit with 2 cure				
touch	2	6	16	48
through	4	8	24	72
Thinner	Amercoat 8 or 65			
Equipment cleaner	Thinner or Amercoat 12			

Numerical values are subject to normal manufacturing tolerances, color and testing variances. Allow for application losses and surface irregularities.

This mixed product is photochemically reactive as defined by the South Coast Air Quality Management District's Rule 102 or equivalent regulations.

## Shipping Data

Packaging unit	2 gal	5 gal		
400 cure	1-gal in 1-gal can	2.5-gal in 2.5-gal can		
2 cure	1-gal in 1-gal can	2.5-gal in 2.5-gal can		
2/400 resin	1-gal in 1-gal can	2.5-gal in 2.5-gal can		
880 Glassflake	3.62 lbs in 1-gal can	9.05 lbs in 3-gal can		
		(Previously Enviro Pack)		
Shipping weight (approx)	lbs	kg	lbs	kg
400 cure	12.5	5.7	31.8	14.4
2 cure	12.8	5.8	33	15
400 resin	12.2	5.5	35.0	15.9
880 Glassflake	4.4	2.0		

Shelf life when stored indoors at 40° to 100°F (4° to 38°C)  
resin and cure 1 year from shipment date.

## Warranty

Ameron warrants its products to be free from defects in material and workmanship. Ameron's sole obligation and Buyer's exclusive remedy in connection with the products shall be limited, at Ameron's option, to either replacement of products not conforming to this Warranty or credit to Buyer's account in the invoiced amount of the nonconforming products. Any claim under this Warranty must be made by Buyer to Ameron 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 Ameron of such nonconformance as required herein shall bar Buyer from recovery under this Warranty.

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

Any recommendation or suggestion relating to the use of the products made by Ameron, whether in its technical literature, or in response to specific inquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for 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, at 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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