



AMERON
INTERNATIONAL

Performance Coatings & Finishes

Nu-Klad® 114A

Epoxy filler compound

Product Data

- Filler for steel, formed concrete or concrete block

Nu-Klad 114A is a 100% solids epoxy filler compound to fill holes, voids and surface discontinuities in steel, formed concrete or concrete block up to one inch across as measured in their largest dimension. A single application will fill or seal most air bubbles and holes. On concrete block surfaces, Nu-Klad 114A provides a smooth surface in a single application for applying coatings or Nu-Klad 100A spray-on epoxy surfacer.

Typical Uses

Steel and concrete surfaces in :

- Nuclear facilities
- Plants – fossil fuel, sewage and waste treatment, food and beverage, chemical processing
- Mills – pulp and paper, textile, steel
- Mining and metal finishing operations

Typical Properties – after 7 days @ 70°F (21°C)

Mechanical

Density (ASTM D71 modified)	88.6 lbs/ft ³
Tensile strength (ASTM D412)	3000 psi
Compressive strength (ASTM C579)	12549 psi
Modulus of elasticity (ASTM C580)	9.4 x 10 ⁵ psi

Application Data Summary

See Application Instructions for complete information on surface preparation, environmental conditions, application procedures and equipment. To obtain maximum performance, apply as recommended. Adhere to all safety precautions during storage, handling, application and drying periods.

Surface Preparation

Coating performance is, in general, proportional to the degree of surface preparation. Prior to coating, all surfaces must be clean, dry and free of all contaminants, including salt deposits.

Physical Data

Color	Off-white	
Components	2	
Curing mechanism	Chemical reaction between components	
Volume solids	100%	
Theoretical coverage	ft ² /unit	
1 mil (25 microns)		
3 lb unit	406	
20 lb unit	2709	
VOC	lb/gal	g/L
mixed	0.0	0.0
Flash point (SETA)	°F	°C
114A cure	>200	93
114A resin	>200	93
Amercoat 12	2	-17
Amercoat 928	175	79

Application Data

Applied over	Prepared or primed steel, concrete, masonry block		
Surface preparation			
steel	Abrasive blast		
concrete	ASTM D4258, 4259 or 4260		
masonry	ASTM D4261		
Primer	Nu-Klad 105A		
Method	Squeegee, roller, trowel, spatula		
Mixing ratio (by volume)	1.84 parts resin to 1 part cure		
		°F/°C	
	90/32	70/21	50/10
Working time (hours)	1	2 ^{1/2}	4
Initial setting	9	18	36
Curing time before topcoating			
minimum	9	18	36
maximum			
with 114A	36	72	144
with 100A	72	168	336
with Amercoat 90HS	6 months		
<i>If maximum recoat time exceeded, roughen surfaces.</i>			
Environmental conditions			
Temperature			°C
material and surface	50 to 120	10 to 27	
Equipment cleaner	Amercoat 12 or 928		

Safety Precautions

Read each component's material safety data sheet before use. Mixed material has hazards of each component. Safety precautions must be strictly followed during storage, handling and use.

This product is for professional use only. Not for residential use.

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.

Shipping Data

Packaging units	3 lb	20 lb
cure	1-pt can	1/2-gal can
resin	1-qt can	2 1/2-gal can
Shipping weight (approx)	3 lb	20 lb
cure	.79	5.28
resin	2.21	14.72

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

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

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

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.**



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Application Instructions

Refer to the Product Data Sheet for properties and uses.

Adhere to all instructions, 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, in general, is proportional to the degree of surface preparation. Prior to coating, all surfaces must be clean, undamaged, dry and free of all contaminants, including salt deposits.

Steel – Abrasive blast SSPC-SP10. Prepare surface in accordance with Application Instructions for specific primer being used.

Concrete – Cure concrete a minimum of 14 days and until 80 percent of its physical properties have been attained before applying Nu-Klad 114A. Prepare surfaces according to ASTM D4258, surface cleaning; D4259, abrading; or D4260, acid etching.

Concrete block – Walls must be laid plumb and square with flush joints. Do not rake joints. All surfaces must be clean and dry following ASTM D4261.

Nu-Klad 105A applied over water-cured concrete – Cure to a tack-free condition [6 hours at 70°F (21°C)] before application of Nu-Klad 114A.

Apply Nu-Klad 114A over prepared concrete surfaces or surfaces primed with Nu-Klad 105A primer/sealer. See primer literature.

Environmental Conditions

Temperature	°F	°C
material and surface	65 to 80	18 to 27

Below 65°F (18°C) workability is reduced and application more difficult. Above 80°F (27°C) working time decreases.

Nu-Klad 114A can be applied to surfaces as low as 50°F (10°C); although curing retarded, typical properties of cured material will not be affected.

Application under direct sunlight and rising surface temperatures can result in bubbling of filler compound by release of air or moisture from concrete. Prior to application of Nu-Klad 114A shade for 24 hours any concrete exposed to direct sunlight and keep shaded until after initial set. With rising surface temperatures it may be necessary to postpone application.

Mixing

Nu-Klad 114A supplied in the correct proportions of resin and cure which must be mixed together before use. Mix only full units. Make no additions or deletions. Any deviations will inhibit curing and alter final physical properties. Do not mix more material than can be used within working time: 2½ hours at 70°F (21°C). Material which has begun to set must be discarded.

Application

Apply Nu-Klad 114A to the surface using a short nap paint roller or trowel. Spread and work the filler compound across surface filling voids using the American Olean KR Groutmaster epoxy floor trowel or wide bladed putty knives. Continue working filler compound across surface, applying pressure to achieve a smooth finish. Leave only a slight film above the surface plane. Filler compound should appear somewhat transparent allowing the concrete surface or concrete block texture to remain visible.

A single application will provide a suitable surface to receive Nu-Klad 100A epoxy surfacer or for application of a coating over concrete block. A second application may be required for complete filling and sealing of formed concrete surfaces receiving Amercoat protective coatings. Allow overnight curing at 70°F (21°C), or until first application is firm.

Do not exceed 3 days at 70°F (21°C) before second application. When making second application, use only reasonable pressure to build film thickness to approximately 5 to 10 mils above the surface plane, at the same time remove ridges left during spreading of filler compound by the application tool. Repair all holidays with Nu-Klad 114A before applying coating.

Cleanup

Clean all mixing equipment and application tools immediately with Amercoat 12 or Amercoat 928.

Coverage

Coverage depends upon the number and size of air bubbles or holes to be filled. The theoretical coverage per 20 pound unit on a smooth, pore-free surface is 2709 ft².

Curing Time Before Topcoating

	°F/°C		
	90/32	70/21	50/10
Curing time before topcoating			
minimum (hours)	9	18	36
maximum (hours)			
with 114A	36	72	144
with 100A	72	168	336
with Amercoat 90HS	6 months		

If maximum recoat time exceeded, roughen surfaces.

Safety Precautions

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CAUTION – Improper use and handling of this product can be hazardous to health.

Do not use this product without first taking all appropriate safety measures to prevent property damage and injuries. These measures may include, without limitation: implementation of proper ventilation, use of proper lamps, wearing of proper protective clothing and masks, tenting and proper separation of application areas. Consult your supervisor. Proper ventilation and protective measures must be provided during application and drying to keep spray mists and vapor concentrations within safe limits and to protect against toxic hazards. Necessary safety equipment must be used and ventilation requirements carefully observed, especially in confined or enclosed spaces, such as tank interiors and buildings.

This product is to be used by those knowledgeable about proper application methods. Ameron makes no recommendation about the types of safety measures that may need to be adopted because these depend on application environment and space, of which Ameron is unaware and over which it has no control.

If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product.

Note: Consult Code of Federal Regulations Title 29, Labor, parts 1910 and 1915 concerning occupational safety and health standards and regulations, as well as any other applicable federal, state and local regulations on safe practices in coating operations.

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