



Nu-Klad 812B

Heavy Duty Solvent Free Epoxy Screed

Product Data/ Application Instructions

- **Highly filled, heavy duty screed**
- **Strong, easily applied, repair mortar**
- **Chemical and abrasion resistant**

Typical Uses

Nu-Klad 812B is a solvent free, heavy-duty screed suitable for repair of damaged concrete surfaces. It may be used for horizontal repair of concrete in a wide variety of industrial situations, including areas where the reinforcing bar is exposed. The product is also suitable for forming corner fillets and other special shapes in concrete structures. Nu-Klad 812B screed may also be used as a heavy duty screed.

Recommended Systems

Nu-Klad 813B/Nu-Klad 812B/Nu-Klad 814B.

Approvals and Certificates

Non-skid properties are classified as R13 by the B.I.A. (Berufsgenossenschaftliches Institut für Arbeitssicherheit).

Resistance Guide

Nu-Klad 812B is a solvent free epoxy based screed of high strength combined with excellent chemical resistance. It may be applied at high thickness in areas which will subsequently be exposed to heavy loading and abrasion. The product is easily mixed and applied as a wet-on-wet application using Nu-Klad 813 B as a primer/sealer.

Repair

Damaged concrete: Damaged concrete must be cut back to sound material, e.g. by use of pneumatic tools. All concrete contaminated with acid, chlorides, etc. must be removed. Remove dust, dirt and contamination before recoating.

Physical Data

Finish	matt	
Colour	amber	
Components	3	
Mixing ratio (by weight)		
resin	5.0 kg	
cure	2.5 kg	
filler	22.5 kg (x 2 or x 3)	
Curing mechanism	chemical reaction between components	
Volume solids	100%	
Number of coats	1	
Calculated coverage	approx. 7 l or 15.4 kg/m ² depending on roughness of substrate	
Allow for application losses, surface irregularities, etc.		
Specific gravity	up to 2.2 kg/l (mixed product) depending on filling ratio	
Flash points		
(Closed Cup).....	°C	°F
resin	60	140
cure	60	140
Amercoat 12	24	75

TYPICAL PROPERTIES

Compressive strength (ASTM C579)	> 70 N/mm ²
Flexural strength (ASTM C580)	> 25 N/mm ²
Modulus of Elasticity	approx. 15.000 N/mm ²

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Surface Preparation

IMPORTANT - Apply Nu-Klad 812B as soon as possible after surface preparation to prevent any contamination. In case of contamination, remove contaminants.

COATED SURFACES - Ensure surfaces are clean, free from dust, oil, grease, dirt or other contaminants.

Be sure primer is dried and cured in accordance with the application instructions of the specific primer. Remove grease, oil, dust and other foreign matter. Allow surface to dry completely before applying.

Application Equipment

REPAIR MORTAR - Remove debris and dust from the surface to be repaired. Apply Nu-Klad 813B solvent-free epoxy primer to the concrete surface and to the reinforcing bar and follow up with the Nu-Klad 812B screed as a wet-on-wet application. The time between coats should not exceed 24 hours at 20°C/68°F. Nu-Klad 812B repair screed must not be applied in thicknesses exceeding 6 cm, but if thicker layers are required, then application may be built up layer by layer, leaving 1 hour between each coat.

If overcoating with itself or other coatings, Nu-Klad 812B surface must be kept free of condensation, moisture and direct sunlight between coats.

FLOOR SCREED - Prime the concrete with Nu-Klad 813B. Apply Nu-Klad 812B solvent free epoxy screed wet-on-wet on the previously applied Nu-Klad 813B epoxy. Minimum thickness of the screed should be 7 mm. The screed composition should be 1 kg Nu-Klad 812B (resin and cure) mixed with 6 or 9 kg Nu-Klad 812B filler. Nu-Klad 812B screed is preferably mixed by forced mixing after mixing resin and cure.

EQUIPMENT - Nu-Klad 812B is applied by trowel, or wide bladed putty knife, spreading and working it into cracks and voids.

MIXER - Use power mixer powered by an air motor or an explosion proof electric motor.

Application Data Summary

Like all high performance coatings, Nu-Klad 812B must be applied as recommended to obtain the maximum protection for which this coating is formulated. To obtain the maximum performance for which Nu-Klad 812B is formulated, strict adherence to all application instructions, precautions, conditions and limitations is necessary. If conditions exist that are not within the requirements or limitations described, consult your Ameron representative.

Application Data

Substrate primed concrete

Application method trowel

Potlife (at 20°C/68°F) 45 minutes

Potlife is dependent on temperature and quantities mixed.

Environmental Conditions

(during application and drying))

Air temperature 5 to 30°C 41 to 86°F

Surface temperature 5 to 30°C 41 to 86°F

Material temperature 5 to 25°C 41 to 77°F

To prevent moisture condensation during application, surface temperature must be at least 3°C/5°F above dew point. Never apply coatings under adverse environmental conditions. Ensure good ventilation when applied in confined areas.

Drying Times

(in hours)	°C/°F	15/59	20/68
dry to touch		8	4
setting time		20	10
fully cured		96	48

NOTE: Drying times are dependent on air and temperature, applied film thickness and other environmental conditions. Times are proportionally shorter at higher temperature and longer at lower temperatures. Prior to recoating ensure the surface is clean. Maximum recoating time depends on coating system to be used. Consult your Ameron representative for specific recommendations.

Recoating Times

(in hours)	°C/°F	15/59	20/68
minimum:		NA	NA
maximum:		36	24

Thinner not applicable

Cleaner Amercoat 12

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Application Procedure

Nu-Klad 812B is packaged in the proper mixing proportions of resin, cure and filler.

Primer: Resin : Cure = 2:1

Resin 5.0 kg in 5 l can

Cure 2.5 kg in 2½ L can

Filler 3 x 22.5 kg in bags (- 1:9 filled)

1. Flush equipment with Amercoat 12 before use.
2. Stir each of the components prior to mixing to an even consistency with a power mixer.
3. Add filler to cure and stir until homogenous; add resin to filler/cure mix and continue stirring for 5 minutes. NOTE: Since the potlife is limited and shortened by high temperatures, do not mix more material than will be used within the potlife period (potlife is 45 minutes at 20°C/68°F).
4. Temperature and humidity of ventilating air must be such that moisture condensation will not form on surface.
5. Clean all equipment with Amercoat 12 immediately after use or at least at the end of each working day or shift.

Shipping Data

Packaging

resin	5.0 kg in 10 l can
cure	2.5 kg in 2.5 l can
filler	3 x 22.5 kg in bags (1:9 filled)

Shipping weight

resin	approx. 6 kg
cure	approx. 3 kg
filler	approx. 24 kg/bag

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

This product is combustible. 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;

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

Ameron warrants its products to be free from defects in material and workmanship. Ameron's sole obligations and Buyer's exclusive remedy in connection with the products shall be limited, at Ameron'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 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 non-conformance as required herein shall bar Buyer from recovery under this warranty.

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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.