

Nu-Klad 811B

Light-Weight Solvent Free Epoxy Mortar

Product Data/ Application Instructions

- **Unique, light-weight repair mortar**
- **Suitable for vertical and overhead repair**
- **Restores concrete to its original shape**

Typical Uses

Nu-Klad 811B epoxy mortar is used for the repair of damaged concrete constructions. It is specifically designed for vertical and overhead work and in situations where the reinforcing bar is exposed. Nu-Klad 811B may be applied in power plants, fertilizer plants, sewage and waste treatment plants, chemical processing plants, pulp & paper mills, textile mills, steel mills as well as for Mining and Metal finishing operations. Nu-Klad 811B may also be used to make fillets for corners and to form other special shapes in concrete structures.

Recommended Systems

Nu-Klad 811B repair mortar is suitable for structural repair of formed concrete (no sealer mentioned). It is designed specifically for heavy overhanging and vertical repairs.

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	grey	
Components	3	
Mixing ratio (by weight)		
resin	2.7 kg	
cure	1.3 kg	
filler	21.0 kg	
Curing mechanism	chemical reaction	
	between components	
Volume solids	100%	
Dry film thickness	max. 6 cm per coat	
Number of coats	1 *	
Calculated coverage	1.25 kg at 1 mm/m ²	
Allow for application losses, surface irregularities, etc.		
Specific gravity	1.73 kg/l (mixed product)	
Flash points (Closed Cup)		
Nu-Klad 811B	100	212°F
resin	100	212°F
cure	100	212°F
filler	not applicable	
thinner	not applicable	
Amercoat 12	24°C	75°F

* **Additional coats may be required.**

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Surface Preparation

IMPORTANT - Apply Nu-Klad 811B 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.

CONCRETE - New concrete: Clean concrete surfaces from laitance and foreign matter.

Old concrete: Contact your PPG representative for specific recommendations if concrete surfaces have been coated before.

Exposed reinforcing bar should be cleaned to Sa 2½ by abrasive blasting or at least to St 2 by wire brushing. The reinforcement may then be coated with 2 brush coats of Amerlock 400 self-priming epoxy to a minimum dry film thickness of 150 µm.

NOTE: Do not use form release agents, concrete curing compounds or hardeners. If used already, contact your PPG representative.

Application / Equipment

Remove debris and dust from the surface to be repaired. Apply Amerlock Sealer solvent-free epoxy primer to the concrete surface and to the reinforcing bar and following with the Filler as a wet-on-wet application. Nu-Klad 811B repair mortar 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 hours between each coat.

If overcoating with itself or other coatings, Nu-Klad 811B surface must be kept free of condensation, moisture and direct sunlight between coats.

EQUIPMENT - Nu-Klad 811B 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 811B 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 811B is formulated, strict adherence to all application instructions, precautions, conditions and limitations is necessary.

Application Data

Substrate suitably prepared and primed concrete

Application methods trowel

Potlife (at 20°C/68°F) 1 hour

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 15 to 25°C 59 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 reverse environmental conditions. Ensure good ventilation when applied in confined areas.

Drying Times

	°C/°F 15/59	20/68	25/77
dry to touch	2 hr	1 hr	½ hr
setting time	16 hr	8 hr	4 hr
fully cured	48 hr	24 hr	12 hr

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 PPG representative for specific recommendations.

Recoating times	°C/°F 15/59	20/68	25/77
minimum:	NA	NA	NA
maximum:	unlimited		

Thinner not applicable

Cleaner Amercoat 12

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Application Procedure

Nu-Klad 811B is packaged in the proper mixing proportions of resin, cure and filler.

Resin 2.7 kg in 5 l can
Cure 1.3 kg in 5 l can
Filler 21 kg in 25 l can

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.

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. When left in spray equipment, Amercoat 12 will cure and cause clogging.

Shipping Data

Packaging

resin 2.7 kg in 5 l can
cure 1.3 kg in 5 l can
filler 21.0 kg in 25 l can

Shipping weight

resin approx. 3.2 kg
cure approx. 1.8 kg
filler approx. 23.0 kg

Shelf life

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

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

filler Unlimited when stored indoors in unopened, original containers at 5 to 40°C (41 to 104°F).

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Caution

This product is nonflammable. 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.

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All our transactions are subject to our Terms and Conditions of Sale.

