PENNTEK™ INDUSTRIAL COATINGS

Tech Support 952-491-0616 (Call/Text)
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7850 Lakeville BLVD, Lakeville, MN 55044
Penntek.com

NF 450

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION

NF 450 is a moisture mitigating epoxy primer for use on concrete floors suspected to have high rates of moisture vapor transmission. NF 450 is designed to reduce issues associated with high vapor transmission such as delamination and poor adhesion.

TYPICAL USES/APPLICATIONS

- Moisture tolerant primer to increase adhesion to concrete in high moisture conditions.
- Moisture mitigating primer to reduce water vapor transmission.

PRODUCT ADVANTAGES

- Quick return to service
- Reduces vapor transmission
- Extreme Adhesion

PACKAGING

15-Gallon Kit
Part A - 5 - Gallon Pail (x2)
Part B - 5 - Gallon Pail

STORAGE

Product should be stored indoors between 60˚F to 85˚F away from direct sunlight and moisture.

Make sure containers are completely sealed to prevent moisture contamination and ensure best performance.

Shelf life is 12 months.

RECOMMENDED APPLICATION TEMPERATURE

55˚ - 100˚ F

*Product will not properly cure if floor temperature is below 55 degrees Fahrenheit.

COVERAGE

For Moisture Tolerant Primer: 200 sq.ft./gal.

For Moisture Mitigating Primer:
1st layer with 270 sq.ft./gal.
2nd layer with 100 sq.ft./gal. (16 mils)

TEST DATA

NONVOLATILE CONTENT (ASTM D2369 METHOD E):	> 95%
VOC (FULL KIT):	< 20 g/L
WEIGHT PER GALLON(ASTM D1475):	
Part A:	9.49 lb/gal
Part B:	8.23 lb/gal
VISCOSITY (ASTM D7867):	
Part A:	3000 cps
Part B:	100 cps
GEL TIME:	25 min
TACK FREE TIME (ASTM D5895):	
15 mils, 50%RH	5.5 hrs
KÖNIG HARDNESS (ASTM D4366):	
10 day:	150 s
30 day:	160 s
ADHESION (ASTM D4541):	
10 day:	>500 PSI (concrete failed)
WATER VAPOR TRANSMISSION (ASTM E96/E96M):	
16 mils	Permeability: < 0.3 US Perms

ALL TEST DATA COLLECTED AT 70˚ F

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SURFACE PREPARATION

Make sure the surface is properly abraded, clean, and dry before application. Surface must be free of dirt, grease, oil, and other contaminants. Contaminants could lead to surface defects such as craters and crawling in the coating.

Ensure that the floor temperature is more than 5 degrees over the local dew point to avoid water condensation.

To use NF 450, concrete must be visibly dry and dry to the touch. There must not be any dampness or standing water.

PRE-MIX REQUIREMENTS

Part A: Invert container 3 times prior to each use to ensure uniformity.

Part B: Not required.

MIX RATIO:

2:1 Mix ratio by volume (A:B)

MIX INSTRUCTIONS

Carefully measure 2 parts A and 1 part B by volume and blend together for 2 minutes with a drill mixer. Proceed to application immediately after mixing.

Warning: Mix gets extremely hot when left in volume. Only mix what is needed and pour all of the material onto the floor.

APPLICATION

For Moisture Tolerant Primer:

- **To extend the working time of the product, pour mixed material onto floor in a ribbon-like pattern. Use 200 sq.ft./gal. coverage.**

***Only mix as much material as is needed for desired coverage rate. Use all the mixed material. Material will get extremely hot if left in volume.**

1. **Spread material evenly with an 8 – 12 mil notched squeegee and back roll with a 3/8" nap roller.**
2. **Material must be tack free before applying the next layer.**
3. **Working time of the coating is reduced under high temperature and high humidity conditions.**

For Moisture Mitigating Primer:

- To extend the working time of the product, pour mixed material onto floor in a ribbon-like pattern. Use 270 sq.ft./gal. coverage.

*Only mix as much material as is needed for desired coverage rate. Use all the mixed material. Material will get extremely hot if left in volume.

1. Spread material evenly with a 5 – 7 mil notched squeegee and back roll with a 3/8" nap roller.
2. Material must be tack free before applying the next layer.
3. Apply a second layer of material at a coverage rate of 100 sq.ft./gal. (16 mils).
4. Spread material with a 15 – 20 mil notched squeegee and back roll with a 3/8" nap roller.
5. Work time of coating is reduced under high temperature and high humidity conditions.
6. Material must cure for 12 hours before applying the next layer.
7. Next layer must be applied within 20 hours. For more than 20 hours surface will need to be sanded before next layer can be applied.

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PRODUCT AND APPLICATION SUPPORT
Refer to the Penntek Training Manual or contact the technical support line (952-491-0616) for further information.

TIPS AND TRICKS
- If left with an excess of material in the mix bucket. Fill the remaining space in bucket with water to cool down the heat generation.