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NovaTuff PC-450 Protective Coating (formerly AES-450)

PRODUCT INFORMATION SHEET

PRODUCT DESCRIPTION

NovaTuff PC-450 Protective Coating is a 100% solids multi-purpose, tough and flexible protective coating for concrete and metal. It is used in application where chemical and corrosion resistance is required.

ADVANTAGES

- Developed to withstand extreme corrosive and abrasive conditions.
- Excellent outdoor durability.
- Easy to clean
- Chemical resistant
- Suitable for use in USDA inspected facilities

TYPICAL USES

NovaTuff PC-450 is excellent as an anti-corrosive and protective coating for tanks, pipelines, cooling towers, vats, floors, and steel or concrete structures. AES-450 retains a resilient body, even after final cure. It can even be used under constant spillage, immersion conditions or highly abrasive applications. Designed to protect steel and concrete that is submerged in saltwater such as offshore oil equipment and other marine applications.

RESISTANCE

- Highly resistant to acids, solvents, caustics, hydrocarbons, and salt spray.
- Provides excellent protection against acids, bases and petroleum-based products.
- Does not support the growth of fungi.

SURFACE PREPARATION

To begin, the surface should be etched to provide a profile or "tooth" for optimal adhesion. Surfaces must be clean, free of grease, oil, wax, mastic compounds, paint, waterproofing compounds, form release materials, and all other contaminants prior to application. **NovaTuff PC-450** will not develop optimum adhesion to concrete or metal unless loosely bound materials are first removed from the surface by abrading. Shot blasting, scarifying, grinding, sand-blasting or other abrasive mechanical means are recommended.

New concrete and masonry should not be coated for at least 28 days to permit the concrete or mortar to cure and dry out. Concrete should be visually inspected and tested for moisture content before coating.

Proper inspection and preparation of the substrate to receive NovaTuff Epoxy floor coating material is critical. The preparation procedures above are general guidelines.

Detailed preparation methods are available through SSPC at www.sspc.org or NACE at www.nace.org.



For more information
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PRODUCT CHARACTERISTICS

Color and Finish: Gray or Tan
Solids: 100% Epoxy Solids by weight
Mix Ratio: 1:1

PERFORMANCE TESTING RESULTS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D-4060, CS17 wheel, 4000 cycles	1.9 mils wear 0.31 g loss
Compression	C579-96, 2500 PSI	Pass
Adhesion	ASTM D-4541 Concrete failure Steel adhesive failure	Pass 1481 psi 2737 psi
Flammability		Self-extinguishing over concrete
Hardness	ASTM D-3363	5H - Pass
Impact Resistance	ASTM D-2794 Direct, inch pound greater than 36	Pass
Food Contact	FDA 21-CFR 175-300	Compliant

MIXING

The mixing of parts A & B is very important! **NovaTuff PC-450** has a mixing ratio of 1 parts "B" to 1 part "A". Use a power mixer to thoroughly combine both parts. Mix for a minimum of one minute per gallon. Allow idle activation time for a minimum of 15 minutes.

APPLICATION

NovaTuff PC-450 should be applied in well-ventilated areas. Surfaces should be free of foreign matter. DO NOT apply product near an open flame.

Brush, 3/8" nap roller cover, or airless spray equipment may be used to apply **NovaTuff PC-450**. Surface configuration, weather, or area surroundings will dictate application method.

1. Premix **Base** using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to introduce air into the material.
2. Add 1 part **Activator** to 1 part **Base** by volume. Mix with low speed drill and Jiffy blade for three to five minutes and

until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.

3. Apply **NovaTuff PC-450** using a 3/8" nap roller at a spread rate of 100 square feet per gallon to yield 12-14 mils WFT making sure of uniform coverage. Take care not to puddle materials and insure even coverage.

4. Allow to cure 24 hours minimum before opening to traffic and water exposure.

To get dry film of:	Apply Sq. Ft/Gal:
7.75+ mils	200 sq. ft.
15.5+ mils	100 sq. ft.

DO NOT apply product heavier than 8 wet mils on vertical surfaces. Heavy coats may be applied (up to 10 mils) on horizontal surfaces without danger of bubbling or pinholes in film. For heavier film, apply additional coats. Additional coats must be applied as soon as the surface is tack free and within 36 hours.

Note: Epoxy materials will appear to be cured and "dry to touch" prior to full chemical cross linking. Allow epoxy to cure 2-3 days prior to exposure to water or other chemicals for best performance.

CURING TIME

Pot Life	1 hours @ 80°F
Drying Time	5 hours @ 80°F
Total Cure	48 hours @ 80°F

CLEANUP

Clean up mixing and application equipment immediately after use with lacquer thinner, toluene or xylene. Observe all fire and health precautions when handling or storing solvents. Use Apple Cider Vinegar to clean hands and skin. **Do not allow NovaTuff PC-450 to remain on tools! Once it sets and is cured, it is difficult to remove.**

WARRANTY

NovaTuff Coatings warrants our products to be free of manufacturing defects in accord with applicable quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by NovaTuff Coatings.

NovaTuff Coatings makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. NovaTuff Coatings assumes no responsibilities for injury from the use of this product

NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY NOVATUFF COATINGS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

THINNING

Thinning is typically not needed. If thinning is necessary, add no more than 1/2 pint of Xylene per 2 gallons of **NovaTuff PC-450**. Thinner must only be added after the activation has been completed.

PACKAGING INFORMATION

2 Gallon Kits	
1 cans containing 1 gallons Base	Part B
1 cans containing 1 gallons Activator	Part A

10 Gallon Kits	
1 pails containing 5 gallons Base	Part B
1 pails containing 5 gallons Activator	Part A

STORAGE

Store in accordance with instructions, with seals and labels intact and legible. Keep resins, hardeners, and solvents separated from each other and away from sources of ignition. 12 months shelf life is expected for products stored between 40°F (4.5°C) - 100°F (38°C). Do not allow products to freeze.

SAFETY

This product (and any recommended thinners) contains solvents and/or chemical ingredients. Adequate health and safety precautions should be observed during storage, handling, use, and drying periods. For safe usage, user is specifically directed to consult the current Material Safety Data Sheet for this product. When using this product in a confined space or closed area, consult the OSHA or ANSI bulletins on safety requirements.

DISCLAIMER

Refer to the MSDS sheet before use. The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of NovaTuff Coatings. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Published technical data and instructions are subject to change without notice. Contact your local Nova-Tuff distributor or technical representative for additional technical data and instructions.

OSHA Status: This Material Safety Data Sheet (MSDS) has been prepared in compliance with the federal OSHA Hazard Communication Standard 29 CFR 1910.1200. This product is considered to be a hazardous chemical under that standard.

Disclaimer: The information and recommendations contained herein are based on data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein.