



EPOXY NOVOLAC COATING

Highly Chemical Resistant Epoxy Coating
Horizontal Applications

PRODUCT DESCRIPTION

Five Star® Epoxy Novolac Coating is a two component, 100% solids, highly chemical resistant epoxy coating for horizontal applications. Five Star Epoxy Novolac Coating has excellent flowability and is highly effective for both steel and concrete applications.

ADVANTAGES

- High chemical resistance
- Resistant to chipping or cracking
- Increased wear resistance when broadcast with a dried silica sand
- Low permeability
- Low odor

USES

- Horizontal applications
- Secondary containment surfaces
- Industrial floors

PACKAGING AND YIELD

Five Star Epoxy Novolac Coating is a two component system consisting of premeasured containers of resin and hardener and is available as a 2.5 gallon unit yielding coverage of approximately 200 sq. feet at 20 mil thickness.

SHELF LIFE

Two years in original unopened packaging when stored at normal ambient temperatures.

TYPICAL PROPERTIES AT 70°F (21°C)	
Color	Concrete Gray
Film Thickness	20 mils
Pot Life at 70°F (21°C)	20 minutes
Hardness, ASTM D 2240 Shore D	75
Tensile Strength, ASTM D 638	7200 psi (49.6 MPa)
Compressive Strength, ASTM D 695	
7 Days	10000 psi (70.0 MPa)
In-Service Time, (allow 3-5 days for maximum cure)	48 - 72 hours

Chemical Resistance Chart* at 70°F (21°C)		
Solvents	Organics Acids (Conc.)	Bases / Alkalines (Conc.)
Acetaldehyde	Acetic (1-50%)	Ammonia (1-25%)
Acetone	Acid plating solutions	Ammonium Hydroxide (1-25%)
Acetonitrile	Adipic (1-25%)	Aniline
Acrylonitrile	Azotic (1-50%)	Barium Hydroxide (1-sat.)
Butyl acetate	Battery (1-98%)	Black Pulp Liquor
Cyclohexane	Chromic (1-30%)	Butyl Amine
Ethanol	Chlorohydric (1-37%)	Cadmium Cyanide Plating
Ethyl acetate	Dibasic (1-sat.)	Calcium Hydroxide (1-25%)
Ethyl alcohol	Ethanoic (1-50%)	Chromium Trioxide (1-25%)
Formaldehyde	Ethylic (1-50%)	Copper Cyanide Plating
Isopropyl Alcohol	Engravers (1-50%)	Dimethyl Aniline
Jet Fuel	Hydrochloric (1-37%)	Hydrogen Peroxide (1-30%)
Kerosene	Hydrofluoric (1-40%)	Green Pulp Liquor
Methyl Ethyl Ketone	Mattling (1-98%)	Soap solutions
Methanol	Nitric (1-50%)	Sodium Cyanide (1-15%)
Methyl Alcohol	Oil of vitriol (1-98%)	Sodium Hypochlorite (1-9%)
Rubbing Alcohol	Oleic	Sodium Hydroxide (1-50%)
Wood Alcohol	Phosphoric (1-85%)	Triethanolamine
1,1,1 Trichloroethane	Sulfuric (1-98%)	Triethylamine
Phenol	Vitriol (1-98%)	Potassium Hydroxide (1-sat)

* NOTE: Many factors effect chemical resistance. Application design, service and exposure temperatures, and the type and amount of impurities in the chemical or in the environment are some important considerations. These test results are reported to serve as a guide to the applicability of the Novolac systems.

The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result. Test methods are modified where applicable.

PLACEMENT GUIDELINES

1. **SURFACE PREPARATION:** Surfaces should be clean, sound, and rough. Remove dust, laitance, grease, curing compounds, impregnations and waxes. Concrete should be sandblasted or prepared by other acceptable mechanical means. Steel should be sandblasted to an SSPC-SP6 commercial finish.
2. **MIXING:** For optimum performance, all components should be conditioned to between 65°F and 85°F (18°C and 29°C). Premix both Component A (resin) and Component B (hardener) thoroughly before mixing. Place all of Component A and Component B into a suitable container. Component A and Component B are mixed in a 1.5:1.0 ratio by volume. Mix Component A and Component B with a slow speed mixer for no more than 3 minutes. Avoid air entrapment. Place mixed material immediately. Mix only that amount of material that can be placed within 20 minutes.
3. **METHODS OF PLACEMENT:** Five Star® Epoxy Novolac Coating may be applied using a squeegee, roller or brush. Apply material in even coats. Allow coating to self-level over area being applied. For multiple coat applications or to achieve a skid-resistant surface, contact the Five Star Engineering and Technical Service Center at (800) 243-2206.
4. **POST PLACEMENT PROCEDURES:** In-service operation may begin after a 48 - 72 hour cure time.
5. **CLEAN UP:** Tools with fresh material may be cleaned with MEK, Xylene or a solution of water and strong detergent.

NOTE: PRIOR TO APPLICATION, READ ALL PRODUCT PACKAGING THOROUGHLY. For more detailed placement procedures, refer to *Design-A-Spec™ installation guidelines* or call the Five Star Products Engineering and Technical Service Center at (800) 243-2206.

CONSIDERATIONS

- Minimum application temperature of substrate is 40°F (4°C) and rising. Low temperatures adversely affect flowability and strength gain.
- Do not thin with solvents.
- Minimum age of concrete must be 21 to 28 days, depending on curing and drying conditions prior to application. Use Five Star Waterborne Primer in conjunction with Five Star Epoxy Novolac Coating for concrete that is 3 - 5 days old.
- Cold temperatures lengthen cure time, hot temperatures decrease cure time.
- Maximum operating temperature is 200°F (93°C).

CAUTION

FOR INDUSTRIAL USE ONLY. Irritant, toxic, strong sensitizer. Contains epoxy resin and amine. This product may cause skin irritation. Do not inhale vapors. Provide adequate ventilation. Protect against contact with skin and eyes. Wear rubber gloves, long sleeve shirt, goggles with side shields. In case of contact with eyes, flush repeatedly with water and contact a physician. Areas of skin contact should be promptly washed with soap and water. Do not take internally. Keep product out of reach of children. **PRIOR TO USE, REFER TO MATERIAL SAFETY DATA SHEET.**

For worldwide availability, additional product information and technical support, contact your local Five Star distributor, local sales representative, or you may call Five Star's Engineering and Technical Service Center at (800) 243-2206.

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