**Description**
Novolac AR170 Severe Service Coating is a high-build, 100% solids Novolac epoxy coating. It provides resistance to harsh chemicals, including 98% sulfuric acid, and can be used as a topcoat over epoxy and polyurethane coatings.

**Yield**
80 ft² per gallon at 20 mils (WFT), depending on substrate smoothness and porosity (2 m²/L)

**Packaging**
3 gallon (11.4 L) kits, containing
Two 1-gallon (7.6 L) pails of Part A (clear or pigmented)
1 gallon (3.8 L) pail of Part B (clear)

15 gallon (56.8 L) kits, containing
Two 5-gallon (18.9 L) pails of Part A
5 gallon (18.9 L) pail Part B

**Color**
Gray

**Shelf Life**
2 years when properly stored

**Storage**
Store in unopened containers at 60 to 80°F (16 to 27°C) in clean, dry conditions.

**Product Data**

**Features**
- Hard wearing-surface
- Chemical resistant
- 100% solids system
- Liquid applied
- Usable with aggregate broadcast

**Benefits**
- Durable, low-maintenance flooring
- Excellent resistance to sulfuric acid and a wide range of industrial chemicals
- Solvent free; nearly odor-free application
- Seamless protection of concrete
- Creates a slip-resistant floor finish

**Where to Use**
**APPLICATION**
- Chemical-resistant industrial flooring
- Primary containment of water and wastewater
- Secondary containment of many chemicals
- Floors, gutters, and troughs
- Manholes, wet wells, and lift stations
- Walls
- Wastewater treatment plants
- Pulp and paper mills
- Metal-treatment plants
- Battery storage areas
- Production areas
- Food-processing plants
- Waste areas

**LOCATION**
- Horizontal and vertical surfaces
- Interior or exterior below grade

**SUBSTRATE**
- Concrete and masonry

**How to Apply**

**Surface Preparation**
1. Surface must be clean, structurally sound, and fully cured 28 days.
2. Mechanically profile the surface of both old and new concrete by shotblasting to ICRI CSP 4, then remove dust by vacuuming.
3. Prime with Nitoprime 30 or 60. Can be dry or damp.

**Priming**
**HORIZONTAL APPLICATIONS**
1. Prime the prepared substrate with Nitoprime 30. Apply Nitoprime 30 at a coverage rate of 150 – 300 ft²/gallon (3.6 – 7.4 m²/L). Refer to the Nitoprime 30 data sheet for more details or call BASF Technical Service.
2. Allow Nitoprime 30 to become tack free (approximately 3 – 4 hours) before applying Novolac AR170 Severe Service Coating.

**VERTICAL APPLICATIONS**
Prime the prepared substrate with Nitoprime 60. Apply Nitoprime 60 at a coverage rate of 300 – 400 ft²/gallon (7.3 – 9.8 m²/L). Refer to the Nitoprime 60 data sheet for more details or call BASF Technical Service.
Technical Data

Composition
Novolac AR170 Severe Service Coating is a 100% solids Novolac epoxy.

Typical Properties

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tack free time, hrs, 4 – 6</td>
<td></td>
</tr>
<tr>
<td>at 75° F (24° C)</td>
<td></td>
</tr>
<tr>
<td>Initial cure, hrs,</td>
<td>24</td>
</tr>
<tr>
<td>at 75° F (24° C)</td>
<td></td>
</tr>
<tr>
<td>Light traffic, hrs,</td>
<td>16</td>
</tr>
<tr>
<td>at 75° F (24° C)</td>
<td></td>
</tr>
<tr>
<td>Full chemical resistance,</td>
<td>7</td>
</tr>
<tr>
<td>days, at 75° F (24° C)</td>
<td></td>
</tr>
<tr>
<td>Mix ratio, by volume</td>
<td>2 to 1</td>
</tr>
<tr>
<td>Application temperature range,</td>
<td>50 – 120</td>
</tr>
<tr>
<td>° F (° C)</td>
<td>(10 – 49)</td>
</tr>
<tr>
<td>Service temperature range,</td>
<td>50 – 90</td>
</tr>
<tr>
<td>° F (° C)</td>
<td>(10 – 32)</td>
</tr>
</tbody>
</table>

Mixed viscosity, cps, at 75° F (24° C) 4,000 ASTM D 2393

Pot life, min, at 75° F (24° C) 30 – 45 ASTM D 2471

Bond strength, psi (MPa), 14 day moist cure 2,640 (18.2) ASTM C 882

Compressive strength, psi (MPa) 14,300 (99) ASTM D 695

Tensile strength, psi (MPa) 5,700 (39) ASTM D 638

Tensile elongation, %, cured 7 days at 75° F (24° C) 3 – 4 ASTM D 638

Hardness, Shore D 80 – 82 ASTM D 2240

Abrasion resistance, l/mil coating 40 ASTM D 968

Chemical Resistance*
Based on 7-day immersion test at 70° F (21° C)

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric acid, 50%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Hydrofluoric acid, 50%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Nitric acid, 25%</td>
<td>Occasional contact</td>
</tr>
<tr>
<td>Sulfuric acid, 10%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Sulfuric acid, 25%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Sulfuric acid, 50%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Sulfuric acid, 98%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Phosphoric acid, 50%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Acetic acid, 10%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Sodium hydroxide, 50%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Ammonia, 10%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Bleach concentrate</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Bleach, 5%</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Urea (saturated)</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Sugar (saturated)</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Sodium chloride (saturated)</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Methanol</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Butanol</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Acetone</td>
<td>Occasional contact</td>
</tr>
<tr>
<td>Mineral spirits</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Xylene</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Lubrication oil</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Gasoline</td>
<td>Regular contact</td>
</tr>
<tr>
<td>Skydrol</td>
<td>Regular contact</td>
</tr>
</tbody>
</table>

* 7 day cure at 70° F (21° C) and 50% relative humidity
Mixing
1. Thoroughly stir each separate component (epoxy resin Part A and the hardener Part B) before mixing the two components together.
2. The mix ratio by volume is 2 parts resin (Part A) with 1 part hardener (Part B). Combine 1 part hardener (Part B) with 2 parts resin (Part A) in a clean, suitably sized container. Scrape the sides of the containers to remove as much material as possible to ensure accurate mixing ratio.
3. Mix the components together using a slow-speed (400 – 600 rpm) drill with Jiffy mixer for at least 3 minutes until uniform in color with no streaks of color in the mixture.

Application

**AS A COATING FOR CONCRETE SUBSTRATES**

1. Apply the mixed product to the clean, primed surface by roller or brush. Use the shortest nap roller suitable for the prepared substrate profile.
2. Backroll the coating to ensure good wetting of the substrate, uniform thickness of the coating, and removal of any roller marks.
3. Apply two 20-mil coats at the rate of 80 ft²/gallon per coat (2 m²/L).
4. To make the coating slip resistant, broadcast sand into the first coat while it is wet.
5. Recoating must be done within 24 hours at 70°F (21°C). After 24 hours, mechanically abrade the entire surface of the coating and clean with acetone or xylene. Allow AR170 to dry and reapply the coating within 1 hour.

**AS A TROWEL-DOWN TOPPING**

1. After mixing, slowly add 2 – 3 parts clean, dry sand by volume to 1 part mixed Novolac AR170 epoxy by volume.
2. Trowel or screed the sand-modified Novolac AR170 to desired thickness (minimum 1/4” or 6 mm).

**Curing**

- Tack free: approximately 4 – 6 hours
- Traffic ready: 24 hours
- Fully cured: 7 days at 75°F (24°C) and 50% relative humidity

**Clean Up**

Clean equipment immediately after use with xylene. Cured material can be removed by mechanical means only. Clean hands and skin immediately with soap and water, industrial hand cleaner, or denatured alcohol.

**For Best Performance**

- Precondition all components to 70°F (21°C) for 24 hours before using.
- Minimum ambient, surface, and material temperature should be 50°F (10°C) and rising at time of application.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

**Health and Safety**

**NOVOLAC AR170 SEVERE SERVICE COATING**

**PART A**

**Warning**

Novolac AR170 Severe Service Coating Part A contains epoxy resin; furfuryl alcohol.

**Risks**

May cause skin, eye and respiratory irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Ingestion may cause irritation. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

**Precautions**

Use only with adequate ventilation. Keep container closed. Avoid contact with skin, eyes and clothing. Keep container closed when not in use. Wash thoroughly after handling. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

**First Aid**

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

**Proposition 65**

This product contains materials listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

**VOC Content**

0 g/L or 0 lbs/gal less water and exempt solvents when components are mixed and applied per Manufacturer’s instructions.
NOVOLAC AR170 SEVERE SERVICE COATING

PART B

DANGER – CORROSIVE

Novolac AR170 Severe Service Coating Part B contains benzyl alcohol; 1,2-cyclohexanediamine; salisylic acid.

Risks

Contact with skin or eyes may cause burns. Ingestion may cause irritation and burns of mouth, throat and stomach. Inhalation of vapors may cause irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Repeated or prolonged contact with skin may cause sensitization. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

DO NOT get in eyes, on skin or clothing. Wash thoroughly after handling. Keep container closed. DO NOT take internally. Use only with adequate ventilation. DO NOT breathe vapors. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

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In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

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Proposition 65

This product does not knowingly contain materials listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents when components are mixed and applied per Manufacturer’s instructions.

For medical emergencies only, call ChemTrec (1-800-424-9300).