

# SAUEREISEN

## CONOFLEX URETHANE NO. 381

Sauereisen ConoFlex Urethane No. 381 is an aromatic polyurethane lining that provides excellent flexibility and impact resistance for concrete, steel, and other substrates. No. 381 is a chemically resistant, lining combining toughness, elongation, and low permeability with a fast cure time.

Typical uses: flexible lining for various applications, including primary/secondary containment structures subject to movement, tank coatings & linings, cooling tower basins, food processing areas (FDA & USDA compliant), and wastewater applications.

### CHARACTERISTICS

- Chemically resistant - withstands a wide range of acids and bases
- Highly impermeable - eliminates corrosion of substrates
- Flexible - moves with substrate
- Impact and abrasion resistant
- 100% Solids
- High-build characteristics
- Color: Dark Gray 53
- USDA BioPreferred based on high content of renewal materials

### AREA PREPARATION

#### Temperature of Working Area

Maintain a temperature of 50°F - 90°F on air, substrate, liquid and hardener components during mixing, application, and curing for optimum results. Ambient temperature must be at least 5°F above dew point.

Applications in direct sunlight and rising surface temperatures may result in blistering of the material due to expansion of entrapped air or moisture in the substrate. Concrete that has been in direct sunlight must be shaded for 48 hours prior to application and remain shaded until after the initial set. When the surface temperatures are rising, it may become necessary to postpone the application and to apply the materials when temperature of the substrates are decreasing.

### PHYSICAL PROPERTIES

Abrasion Resistance (ASTM D4060,CS-17)-(1,000 gms/1,000 cycles)	45 mg
Adhesion to Steel (ASTM D4541)	2,940 psi
Elongation at Break (ASTM D412)	41%
Flexibility (ASTM D 1737)	30 mils: 180° over 0.125 in. Mandrel
Hardness Shore D (ASTM D2240-86)	68 +/- 3
Mixing Ratio	3:1 - Resin to Activator
Moisture Vapor Transmission (ASTM F1249-06)	35-40 mils: 0.012g/100 in <sup>2</sup>
Percent Solids	100%
Pot Life	12-15 minutes
Service Temperature	<b>Dry:</b> Continuous: -40°F to 200°F Maximum Surge 350°F <b>Immersion:</b> Insulated: 150°F Non-Insulated: 120°F
Tensile Strength (ASTM D412)	2,775 psi
Volatile Organic Compounds (VOCs)	0.0 g/L

Physical properties were determined on specimens prepared under laboratory conditions using applicable ASTM procedures. Actual field conditions may vary and yield different results; therefore, data is subject to reasonable deviation.

#### Surface Preparation

All surfaces must be made free of oils, grease, water, and other contaminants that may inhibit the bond.

**Metal:** Abrasive blast to a minimum 3 mil profile employing a near white metal SSPC-SP10 finish, accordance with Nace 2 specifications. All welds must be continuous, free of flux, and have a smooth rounded radius without any sharp edges or protrusions.

Prepare concrete surfaces in accordance with SSPC-SP13/NACE 6 "surface preparation of concrete" for detailed guidelines.

**ConoFlex Urethane No. 381 should be used in conjunction with ConoPrime No. 502.**

**New Concrete** - All structures must have the necessary strength to withstand imposed loads during normal use and operation. After ConoPrime No. 502 is applied, the surfaces should be floated with Sauereisen RestoKrete® Filler Compound No. 209 or RestoKrete® Epoxy Modified Cement No. 208 to fill all voids and depressions.

Substrates must be free of oil, grease, and other contaminants that may inhibit bond. This can be achieved by chemical cleaning. Abrasive blast, or high-pressure water blast to remove laitance and to obtain a uniform surface texture exposing fine aggregate resembling coarse sandpaper.

**Old Concrete** - Concrete must be dry, firm and must have the necessary strength to withstand imposed loads during normal use and operation.

Surfaces must be free of oil, grease, and other contaminants that may inhibit bond. This can be achieved by chemical cleaning. Mechanical methods should be utilized to remove laitance, old paints, protective coatings, and attacked or deteriorated concrete.

For concrete substrates, abrasive blast or high-pressure water blast to obtain a clean, uniform, and sound substrate. All structural cracks should be repaired. All slopes should be reestablished.

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For irregular surfaces with voids exceeding 1/4 inch, Sauereisen RestoKrete® Filler Compound No. 209 or RestoKrete® Epoxy Modified Cement No. 208 may be used as an underlayment for ConoFlex No. 381.

Prior to application of ConoFlex No. 381, inspect the primed surface for voids, bubbles, and other defects that may result in blistering or pinholes. Repair as necessary to ensure a sealed surface.

*Other Surfaces:* Conoflex No. 381 may be used as a coating or lining over other substrates. Please contact Sauereisen for technical assistance.

## EXPANSION & CONTROL JOINTS

Contact Sauereisen for technical assistance.

## APPLICATION

### Mixing / Installation

Premix No. 381 Part B Resin component to assure even dispersion of pigment.

### For applications by plural component spray equipment:

Apply ConoFlex Urethane No. 381 with a Graco™ "Hydra-Cat" with a King Air-Head or Gusmer 20/35, set to spray at a fixed volumetric ratio of 3:1. Use Graco™ R-A-C IV spray tips in sizes from 0.021 to 0.043.

ConoFlex Urethane No. 381 can also be applied by roller, trowel, or squeegee. Consult Sauereisen for specific details.

It is very important to use a NIOSH-23C approved respirator when spraying ConoFlex Urethane No. 381. Please consult No. 381 MSDS for proper personal protective equipment.

## COVERAGE

Theoretical coverage is 26.7 ft<sup>2</sup> per gallon at 60 mils.

Do not freeze. If there is a doubt as to the quality of the materials, consult a Sauereisen representative.

## CLEAN-UP

All equipment should be cleaned with MEK before material cures. If removal is required after cure, consult Sauereisen for recommendations.

## SETTING/CURING

If Sauereisen ConoPrime No. 502 is used, please refer to the ConoPrime No. 502 data sheet for curing and top coat instructions.

ConoFlex Urethane No. 381 must be allowed to cure a minimum of 1 hour.

1-hour	Dry to touch
1-24 hours	Recoat window time
24 hour	Full Cure

## PACKAGING

ConoFlex Urethane No. 381 is packaged in 200-gallon (bulk) units, 20 gallon large units, 1-gallon patch-kits.

### Ratio:

**3-part B-Resin :1-part A- Activator**

### Bulk Units - 200 Gallons

Part B - Resin: 3-55 drums with 50 gallons of Resin per drum.

Part A - Activator: 1-55 Gallon Drum with 50 gallons of Activator.

### Large Units - 20 Gallon

Part B-Resin: 15 gallons packaged in 3- 5-gallon plastic pail

Part A-Activator: 1 - 5 gallon plastic pail (filled)

*\*Containers are filled by weight, not volume. Container size does not indicate volume of contents.*

## SHELF LIFE

Sauereisen ConoFlex Urethane No. 381 Resin and Activator have a shelf life up to one (1) year when stored in tightly sealed containers in a dry location at 70°F.

## CAUTION

Consult Material Safety Data Sheets and container label Caution Statements for hazards in handling these materials.

## WARRANTY

We warrant that our goods will conform to the description contained in the order, and that we have good title to all goods sold. WE GIVE NO WARRANTY, WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE OR OTHERWISE, EXPRESS OR IMPLIED, OTHER THAN AS EXPRESSLY SET FORTH HEREIN. We are glad to offer suggestions or to refer you to customers using Sauereisen Cements and Compounds for a similar application. Users shall determine the suitability of the product for intended application before using, and users assume all risk and liability whatsoever in connection therewith regardless of any suggestions as to application or construction. In no event shall we be liable hereunder or otherwise for incidental or consequential damages. Our liability and your exclusive remedy hereunder or otherwise, in law or in equity, shall be expressly limited to our replacement of non-conforming goods at our factory or, at our sole option, to repayment of the purchase price of non-conforming goods.

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- o Distributors and agents in major cities throughout the world. Consult manufacturer for locations.
- o Information concerning government safety regulations available upon request.
- o Sauereisen also produces inorganic compounds for assembling, sealing, electrically insulating and grouting.

**SAUEREISEN** 160 Gamma  
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