



# THE EUCLID CHEMICAL COMPANY

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## EUCO #452-P EPOXY SYSTEM



## EPOXY SECURITY SEALANT

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**EUCO #452-P EPOXY SYSTEM** is a 100% reactive, two component material specifically designed as a prison security sealant. It is a moisture insensitive, high modulus epoxy gel that can be applied on vertical, horizontal and overhead concrete member joints.

### PRIMARY APPLICATIONS

- Control joints
- Wall/floor joint sections
- Beam interfacings
- Fixture grouting
- Anchoring and hand rail grouting
- Precast elements

### FEATURES / BENEFITS

- High modulus material for superior tamper proofing
- Excellent bond strength to prevent removal
- Water tight
- Wear resistant for high traffic applications
- Resists removal with pointed tools

### SPECIFICATIONS / COMPLIANCES

EUCO #452-P EPOXY SYSTEM meets the requirements of ASTM C 881-90, Types I, IV and VI, Grade 3, Class B and Class C. It is suitable for use under ACI specifications 503.1, 503.2, 503.3 and 503.4.

### Appearance

EUCO #452-P EPOXY SYSTEM is a 2-part system consisting of a black pigmented part B and a white pigmented part A. When these are combined, the resultant material has a color similar to concrete.

### Coverage Rates

A one gallon (3.8 liter) unit of EUCO #452-P EPOXY SYSTEM will lay a 1/4" (6 mm) square bead of caulk for 308 linear feet (94 linear meters).

### Material Requirements

1000 lineal feet (305 meters) of 1/4" x 1/4" (6 mm x 6 mm) joint will require approximately 3.25 gallons (12.3 liters) of material.

### TECHNICAL INFORMATION

#### **Typical Engineering Data**

The following results were developed under laboratory conditions.

**Gel Time** (ASTM C-881-90) ..... 50 mins.

**Gel Time** 1 gal (3.8 liter) ..... 25 mins.

**Bond Strength** (ASTM C-882)

@ 48 hours ..... >900 psi (>6.1 MPa)

@ 14 days ..... >1,700 psi (>11.7 MPa)

**Tensile Strength** (ASTM D 638)

@ 14 days ..... >6,800 psi (>46.7 MPa)

**Modulus of Elasticity** (ASTM D 638)

@ 14 days ..... 1.3 x 10<sup>6</sup> psi (8.9 x 10<sup>3</sup> MPa)

**Compressive Strength** (ASTM C 695)

@ 14 days ..... >10,900 psi (>75.2 MPa)

**Shelf Life:** 2 years in unopened containers.

### PACKAGING / YIELD

EUCO #452-P EPOXY SYSTEM is available in 1 gallon (3.8 liter) and 3 gallon (11.4 liter) units.

	<u>Volume</u>
Part A Resin	0.73 gal (2.8 liter)
Part B Hardener	0.27 gal (1 liter)
Yield	1 gal (3.8 liter)

### DIRECTIONS FOR USE

**Surface Preparation** - New concrete must be a minimum of 28 days old and possess an open surface texture with all curing compounds and sealers removed. Old concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. The surface of the joint must be prepared mechanically using a bushhammer, sawcut or other equipment specifically designed for joint and crack filling preparation. The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing.

Acid etching is acceptable only when mechanical preparation is impractical. It is recommended that only contractors experienced in the acid etching process use this means of surface preparation. The salts of the reaction must be thoroughly pressure washed away.

The best bond will be achieved if the concrete is allowed to completely dry. Note: Even with proper procedures, an acid etched surface may not provide as strong a bond as mechanical preparation procedures.

**Priming** - EUCO #452-P EPOXY SYSTEM requires no special primers. The product may be placed directly on the properly prepared surface.

**Mixing** - All materials should be in the proper temperature range of 60°F (15°C) - 90°F (32°C). Mix parts A and B (resin & hardener) for 2 minutes using a drill and mixing prop. For ease of mixing, add the part B to the part A (not the reverse). The epoxy must be well mixed and streak free to ensure proper chemical reaction.

Place immediately. Warm temperatures will reduce working time.

**Placement** - EUCO #452-P EPOXY SYSTEM is normally placed using standard caulk or epoxy joint filling equipment. The product may be placed by hand for small jobs.

### **CLEAN-UP**

Clean tools and equipment with solvent such as EUCO SOLVENT, xylene, xylol, toluene or MEK. Do not allow the epoxy to harden on equipment.

### **PRECAUTIONS / LIMITATIONS**

- This product is primarily intended as an adhesive. While use as a coating is allowed, better performance and color consistency can be expected from the EUCOPOXY TUFCOAT or EUCOTHANE product line.
- This product may vary in color and may yellow and chalk in prolonged exposure to sunlight.
- Bring materials as close to 70°F (21°C) as possible. Store in room temperature environment 24 hours prior to use. Do not heat with open flame.
- Store indoors at 45°-110°F (7°-43°C).
- Epoxy components may cause irritation. Avoid contact with eyes and skin.
- Do not apply over freestanding water.
- Do not apply over hardened primer or old epoxy without proper surface preparation.
- Not recommended for use as a surface sealer over new concrete less than 30 days old.
- Not recommended for use when base concrete is at a temperature under 40°F (4°C).

Form Euco #452-P Epoxy System-12.97

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