



**Specification Document
Product: SpecPoxy 2000**

**DIVISION 3 - CONCRETE
Section 03 30 00 - Cast-in-Place Concrete Bonding Agents**

Part 1 – General

1.01 Summary

A. This specification covers the bonding of fresh concrete to hardened concrete and the anchoring of steel into concrete using SpecPoxy 2000, a high-modulus, medium-viscosity epoxy adhesive.

1.02 Delivery, Storage, and Handling

- A. Delivery: Products must arrive in original, sealed containers with labels.
- B. Storage: Keep off the ground, protected from extremes of weather.
- C. Conditioning: Acclimate products as recommended by SpecChem.

1.03 Job Conditions

- A. Environmental Conditions: Apply only when temperatures are above 40°F and rising.
- B. Protection: Shield all nearby surfaces to prevent damage from spills or splashes.

1.04 Submittals

- A. Documentation: Provide SpecPoxy 2000 product data and safety data sheets.

Part 2 – Products

2.01 Manufacturers

- A. SpecPoxy 2000 as produced by SpecChem, Kansas City, MO.



2.02 Materials

A. Epoxy resin adhesive: Comprising two components, meeting ASTM C881 Type I, II, IV & V grade 2, classes B & C specifications.

2.03 Performance Criteria

A. Compressive Strength (ASTM D695):

- 1 day: 10,250 psi
- 7 days: 11,600 psi

B. Compressive Modulus (ASTM D695):

- 450,400 psi

C. Bond Strength (ASTM C882):

- 2 days: 1,790 psi
- 14 days: 3,220 psi

D. Tensile Strength (ASTM D638):

- 7,050 psi

E. Elongation (ASTM D638):

- 1.9%

F. Water Absorption (ASTM D570):

- Less than 0.15%

G. Heat Deflection Temperature (ASTM D648):

- 135°F

H. Direct Tensile Pullout (ASTM E488):

- 1" dowel x 2.5" hole x 3.5" embedment: 20,990 lbs

Part 3 – Execution

3.01 Surface Preparation

A. Clean surfaces thoroughly to remove all contaminants. Use abrasive methods for best results. Prepare drilled holes and surfaces as per detailed instructions.



3.02 Mixing and Application

- A. Mix components A and B at a 1:1 ratio for three minutes until uniform. Apply using a brush, roller, or spray method at approximately 80 sq ft per gallon.
- B. For bonding, apply neatly to substrates and place fresh concrete while SpecPoxy 2000 is tacky. For reapplication, clean surface and reapply as needed.
- C. For anchoring, fill the hole from bottom-up, slowly insert the bolt or dowel while turning, ensuring no air gaps.
- D. Create epoxy mortar for patching by mixing SpecPoxy 2000 with clean, dry silica sand in a 1:4 ratio, first applying a prime coat of neat epoxy.

3.03 Cleaning

- A. Clean tools and spills with suitable solvent while SpecPoxy 2000 is uncured. Cured material can only be removed mechanically.
- B. Maintain a clean work area, ensuring no epoxy residue remains on adjacent surfaces.