

Part # 405

**DESCRIPTION:** Rhino 405 Structural Epoxy Gel is a highly versatile, 100% solids high build system. Its wide variety of uses on concrete substrate include structural restoration, patching, and adhesive repairs. The long working life of Rhino 405 is ideal for repairing large concrete floors, and restoration of deteriorated concrete structures. Rhino 405 applications are tack free within 8 – 10 hours, and may be recoated with a variety of Rhino Epoxy products at that time. When mixed at a ratio of 2:1 by volume (yellow resin and blue hardener), the material cures to a light green color, which also ensures a proper mix. Rhino 405 provides excellent chemical resistance and is highly moisture tolerant. These features make Rhino 405 ideal for wastewater applications.

**TYPICAL USES:**

- Patching “bug holes” and cracks on large floor areas or other concrete structures.
- Concrete spall repair
- Gap filler, may be used like “Bondo” to fill quarter-sized holes or smaller metal tanks.

**FEATURES & BENEFITS:**

- Easy to use 2:1 by volume mixing
- High build (up to 1" on vertical surfaces)
- Adhesive “tack coat” for saturated carbon or e-glass laminates
- Long working time of >60 minutes
- Easy to mix. Yellow resin and blue hardener mix and cure to a light green color, assuring proper mixing on the jobsite.
- Moisture tolerant, excellent chemical resistance, and 100% solids for the widest variety of concrete substrate repair applications.

**APPLICATION PROPERTIES:**

Coverage Rate	Varies, and range from 10 mils to 500 mils
Solids by Volume (%)	100%
Mixed Viscosity	Highly thixotropic paste for vertical use
Working Time	60 – 90 minutes
Tack Free Time	8 – 10 hours
Walk-on Time	16 – 24 hours after application
Cure Time (return to service)	24 – 36 hours

**SURFACE PREPARATION:** Surfaces must be structurally sound and free from contaminants such as dust, oil or dirt. Sand or sweep blasting, by other means of mechanically abrading achieves the best bond. All freestanding water must be removed. General surface preparation and application procedures specified in ACI 503.1-4 should be followed.

**MIXING:** A thorough and complete mix is important. Due to the gel consistency of Rhino 405, the use of a slow turning and heavy duty Jiffy or mixing paddle is recommended. Carefully proportion each component at the ratio of 2 parts A (yellow resin) to 1 part B (blue hardener) by volume and mix until a consistent light green color with no stripes or color variation visible in the mix. It is recommended that Rhino 405 be mixed in smaller batches, and used within 45 minutes from time of mix. Due to the product’s gel characteristics, the individual components should be conditioned to a controlled temperature between a minimum of 65°F and a maximum of 90°F for best results.

**TIPS FOR USE:** Temperature and humidity conditions affect the cure and tack free times of this material. Warm, dry conditions speed the cure and cool, damp conditions will lengthen the cure time. Each component should be stirred prior to mixing.

**APPLICATION INSTRUCTIONS:** Mixed material should be applied by trowel, squeegee or putty knife, and feathered at the edges to blend with existing sound concrete substrates.

**RHINO® 405** (continued):

**NOT RECOMMENDED FOR:**

- Do not apply to concrete less than 28 days old.
- Do not apply to unprepared concrete with curing or sealing membranes.
- Do not apply to base concrete at a temperature of less than 55°F.

**HOW SUPPLIED:** Rhino 405 Structural Epoxy Gel is available in 3 gallon, 15 gallon and 165 gallon kits.

**SAFETY PRECAUTIONS: Health Considerations: Consult the Rhino Linings® Safety Data Sheets (SDS)**

This chemical system requires the use of proper safety equipment and procedures. Please follow the Rhino Linings® product SDS and Safety Manual for detailed information and handling guidelines.

**For Your Protection:** The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage and handling are only the opinion of Rhino Linings Corporation. Users should conduct their own tests to determine the suitability of these products for their own particular purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by Rhino Linings Corporation will necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors. Because of numerous factors affecting results, **Rhino Linings Corporation makes no warranty of any kind, express or implied**, other than that the material conforms to its applicable current Standard Specifications. Rhino Linings Corporation hereby disclaims any and all other warranties, including but not limited to those of merchantability or fitness for a particular purpose. No statements made herein may be construed as a representation or warranty. The liability of Rhino Linings Corporation for any claims arising from or sounding in breach of warranty, negligence, strict liability, or otherwise shall be limited to the purchase price of the material.

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