

# TECHNICAL DATA SHEET

RCF™ Structural Epoxy Injection Resin | Revision Date 05/05/2021

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## 1. DESCRIPTION

RCF™ Structural Epoxy Injection Resin is a two-component, 100% solids, moisture-insensitive, ultra-low viscosity, high strength, high modulus, multi-purpose liquid epoxy adhesive. It meets the current ASTM C881 and AASHTO M235, Type I, II, IV & V Grade 2, Classes B & C specifications.

## 2. WHERE TO USE

Use for pressure-injection of hairline cracks in structural concrete, masonry, etc. Can also be used for delamination injection, gravity feed filling of cracks in horizontal concrete and masonry. It is useful as an epoxy resin binder for epoxy mortar patching and overlay of interior, horizontal surfaces.

## 3. ADVANTAGES

- Structurally restores integrity of concrete
- High-strength, high modulus structural adhesive
- Moisture tolerant
- Solvent free
- Ultra low viscosity for deep penetration
- Convenient 2:1 mix ratio by volume
- Made in America

## 4. SHELF LIFE / S STORAGE

24 month shelf life when stored in unopened containers in dry conditions and stored at 40°F-95°F (4°C-35°C)

## 5. TECHNICAL DATA

RCF™ Structural Epoxy Injection Resin Technical Data	
Storage Conditions:	40°F – 95°F (5°C – 35°C).
Condition material to:	65°F – 85°F (18°C – 29°C) before using.
Mix Ratio	2:1 by volume
Viscosity	100-500 cps
Gel Time (60 g mass)	45 minutes
Tack Free Time (73°F or 23°C)	3 to 5 hours
Tensile Properties (ASTM D638), 7 day cure	
Tensile Strength:	10,000 psi (67.0 MPa)
Tensile Elongation:	1.2%
Bond Strength (ASTM C882)	
2 day cure:	2,100 psi (14.5MPa)
14 day cure:	2,200 psi (15.2 MPa)
Compressive Properties (ASTM D695), 7 day cure	
Compressive Strength:	11,000 psi (75.9 MPa)
Compressive Modulus:	300,000 psi (2,070 MPa)
Shear Strength (ASTM D732)	6,000 psi (41.4 MPa)
Flexural Strength (ASTM D790)	7,500 psi (51.7 MPa)
Shrinkage on Cure (ASTM D2566)	.001
Thermal Compatibility (ASTM C884)	Pass
Heat Deflection Temperature (ASTM D648)	123°F (50°C)
Water Absorption (ASTM D570)	0.3% (24 hr)

\*NOTE: Epoxy cure is affected by temperature. Low temperatures will increase cure time, higher temperatures with decrease cure time.

## 6. APPLICATION

- To pressure inject cracks: Dispense product thru an appropriate static mixing nozzle into injection ports.
- To Gravity feed cracks: Blow v-notched crack with oil-free compressed air. Seal underside if cracks reflect through. Pour or dispense mixed epoxy into cracks. Repeat until completely filled.
- To patch and grout: Prime substrate with neat mixed epoxy. Place epoxy mortar using trowels before primer becomes tack-free.

## 7. CONDITION PRODUCT

Condition cartridge and contents to a temperature of 65°F to 85°F (18°C - 29°C) for easier dispensing.

## 8. LIMITATIONS & WARNINGS

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Minimum substrate temperature is 50°F (10°C). Do not thin. Solvents will prevent proper cure.

## 9. MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS

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For complete installation instructions on various applications using RCF™ Structural Epoxy Injection Resin visit [www.rhinocarbonfiber.com](http://www.rhinocarbonfiber.com) or call Rhino Products for more information at 1-888-684-3889.

## 10. CLEAN UP

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Clean tools and equipment with Tough Wipes by Rhino Carbon Fiber™, a biodegradable formula that removes and neutralizes the epoxy. Do not allow epoxy to harden on equipment as cured material can only be removed mechanically.

## 11. SAFETY

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Please refer to the SDS for RCF™ Structural Epoxy Injection Resin published on our Website, [www.rhinocarbonfiber.com](http://www.rhinocarbonfiber.com) or call Rhino Products for more information at 1-888-684-3889. This TDS sheet is not intended to list all Safety and Health Requirements necessary for the installation of these products. All Health and Safety Requirements required by OSHA shall be followed.

## 12. WARRANTY

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Rhino Products warrants to the Buyer that this product is in good quality and conforms to the manufacturer's specifications in force on the date of manufacture and when used in accordance with the Installation Instructions and when stored as directed in the technical literature.

Manufacturer cannot warrant or guarantee any particular method of use, performance or application under any particular condition and Buyer is responsible for determining the suitability of intended purpose and assumes all risks therein. RCF™ shall not be liable for any injury, loss, cost of labor or consequential damages either directly, indirectly or incidentally, arising out of the use or misuse of any product sold by RCF™ or another distributor. If the product is proven to be in non-conformance, the Buyer's sole remedy shall be a refund of the purchase price or replacement of product.