

# TECHNICAL DATA SHEET

RCF™ Saturant-Adhesive Epoxy | Revision Date 05/05/2021

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## 1. DESCRIPTION

RCF™ Saturant-Adhesive Epoxy is a two-component, 100% solids, moisture-tolerant, low to medium viscosity, high strength, low modulus, multi-purpose liquid epoxy adhesive. It meets the current ASTM C881 and AASHTO M235 Types I, II, IV, & V Grade 3, Classes B & C specifications.

## 2. WHERE TO USE

RCF™ Saturant-Adhesive Epoxy can be used for wet lay-up structural repairs with carbon fiber reinforced polymer (CFRP), fiberglass reinforced polymer (GFRP) and injections. Use to bond freshly mixed concrete to hardened concrete, to fill voids and cracks in concrete, masonry and other substrates. It can also be used as a binder in epoxy mortar, as an anchoring adhesive, or as a binder for high friction surface treatments (HFST) on concrete, asphalt or other substrates.

## 3. ADVANTAGES

- High-strength/low modulus structural adhesive
- Made in America
- Rapid cure formula
- Convenient 1:1 mix ratio by volume

## 4. SHELF LIFE / 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™ Saturant-Adhesive Epoxy 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	1:1 by volume
Viscosity	2,000 cps @77 °F (25 °C)
Gel Time (60 g mass)	25 minutes
Tack Free Time (73°F or 23°C)	3 to 5 hours
Tensile Properties (ASTM D638), 7 day cure	
Tensile Strength:	2,800 psi (19.3 MPa)
Tensile Elongation:	40%
Bond Strength (ASTM C882)	
2 day cure:	2,000 psi (13.8 MPa)
14 day cure:	2,800 psi (19.3 MPa)
Compressive Properties (ASTM D695), 7 day cure	
Compressive Strength:	5,000 psi (34.5 MPa)
Compressive Modulus:	110,000 psi (760 MPa)
Compressive Strength (ASTM C579)	
3 hour cure:	1,500 psi (10.3 MPa)
24 hour cure:	5,000 psi (34.5 MPa)
Bond Strength (ASTM C1583/ACI 503R)	300 psi (2.0 MPa)
Flexural Strength (ASTM D790)	3,000 psi (20.9 MPa)
Shrinkage on Cure (ASTM D2566)	0.2%
Thermal Compatibility (ASTM C884)	Pass
Heat Deflection Temperature (ASTM D648)	120 °F (49 °C)
Water Absorption (ASTM D570)	0.2% (24 hr)
Chloride Ion Permeability (AASHTO T277)	0.0 coulomb

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

## 6. MINIMUM CURING TIME

TEMPURATURE	50°	60°	70°	80°	90°
MINIMUM CURE TIME	10 HRS	6 HRS	4 HRS	3 HRS	2 HRS

## 7. APPLICATION TEMPERATURE

Substrate and ambient air temperature between 40°F and 100°F ( 4°C and 38°C)

## 8. CONDITION PRODUCT

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

## 9. LIMITATIONS & WARNINGS

Minimum substrate temperature is 50°F (10°C). Do not thin. Solvents will prevent proper cure. Use oven-dried aggregate. Material is a vapor barrier after cure.

## 10. MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS

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

## 11. SURFACE PREPARATION

RCF™ Saturant-Adhesive Epoxy is specially formulated for use as a saturant epoxy for CFRP . New concrete must be a minimum of 28 days old. Surfaces must be clean of all dirt, oil, debris, wax, grease or dust must be removed. Prepare the surface mechanically using a scarifier, sand blast, shot blast, bush hammer or other equipment that will provide a minimum surface profile of CSP3, as defined by ICRI 310.2R. A roughened surface that exposes the aggregate and/or pores of the substrate is imperative for good adhesion.

## 12. CLEAN UP

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 .

## 13. SAFETY

Please refer to the SDS for RCF™ Saturant-Adhesive Epoxy 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.

## 14. WARRANTY

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 Buyers sole remedy shall be a refund of the purchase price or replacement of product.