



UNITED
REFRACTORIES CO.



DELIVERS

OVER 40 YEARS OF PERFORMANCE DESIGNED SOLUTIONS

UNI-SHOT RF CF Shotcrete

CEMENT FREE TECHNOLOGY • GEL BONDING SYSTEM • NO COLLOIDAL SILICA REQUIRED

BENEFITS

• Cement Free Technology

- Excellent resistance to chemical attack.

• One Component System

- No colloidal silica is required... mix with water and accelerate with the CF activator.
- Better in winter conditions!
- Extremely cost effective, as a **UNI-SHOT RF CF** mix can be 15-20% less than colloidal silica systems.

• Great Strength

- Actual job tested data after 2000°F for **UNI-SHOT RF-60 CF**.

Density	159 pcf
MOR	2480 psi
CCS	12180 psi
C704	6.5-7.8 cc

• Faster Heat-ups

- The "Gel bond" allows faster water release than cement bonded products, thereby saving time on heat-up.

	% Weight Loss (H ₂ O)	
	Gel Bond	Cement Bond
after 135°F	52	25
after 220°F	97	71
after 300°F	100	80

URC ❖ FAQ's

1. Are colloidal silica containing products better?

The original cement free patents incorporated colloidal silica. Today, advances like the RF CF Shotcretes have made a one component system more cost effective with performance equal or better than colloidal silica systems.

2. Do the UNI-SHOT RF CF products set up at room temperature?

a) **Shotcrete Application:** When **UNI-SHOT RF CF** is shotcreted with the CF activator, the shotcreted product solidifies and hardens at ambient temperature just like a cement containing shotcrete.

b) **Pumped Application:** The **UNI-SHOT RF CF** products are designed to be shotcreted. When pumped in place without the CF activator, they exhibit similar "soft set" properties after 24 - 36 hours as colloidal silica containing products. However, experiments on pumping ductwork with **UNI-SHOT RF-50 CF** show that a low heat (90°F to 110°F) inside the ductwork sections will "hard set" the product so that forms are comfortably removed and the ductwork can be moved.



3. Is the UNI-SHOT RF CF system consistent batch after batch?

Yes! On a recent 300 ton project, 51 samples of **UNI-SHOT RF-50 CF** were tested by an independent lab. The tested samples met data sheet and project specs, and the testing firm sent the following email with the results.

"I don't think I've seen a castable material that was this consistent over 50+ samples"

4. Do the UNI-SHOT RF CF products veneer?

Our tests show that the RF CF Shotcrete products veneer as well or better than colloidal silica mixes over clean, existing refractory.

PRODUCTS

- **UNI-SHOT RF-50 CF**
- **UNI-SHOT RF-60 CF**
- **UNI-SHOT RF-60Z CF**
- **UNI-SHOT RF-80 CF**
- **UNI-SHOT RF-AZ-SC CF**

724-941-9300 • URC4U.com • Sales@URC4U.com

9201_UNISHOTRF CF_0617