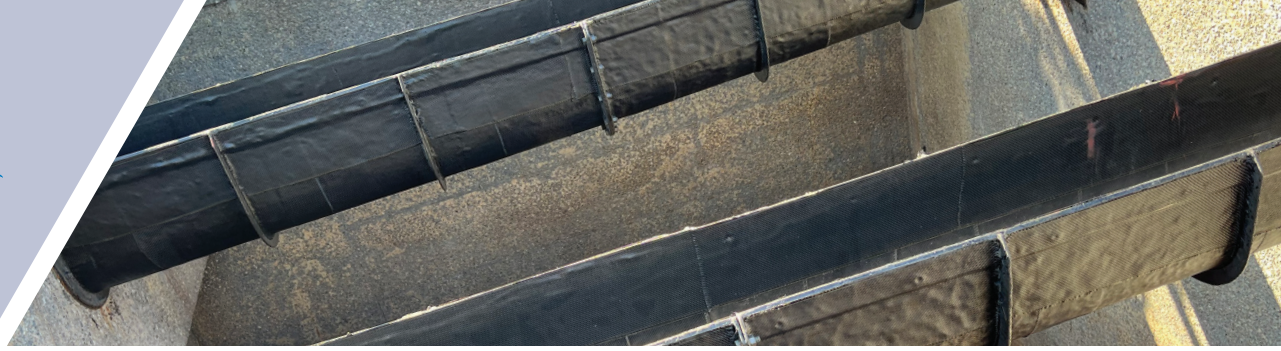


ARC CFW-CR AND ARC CFW-HT

CARBON FIBER REINFORCED NOVOLAC EPOXY LAMINATE REPAIRS FOR CORROSIVE AND HIGH TEMPERATURE CONDITIONS

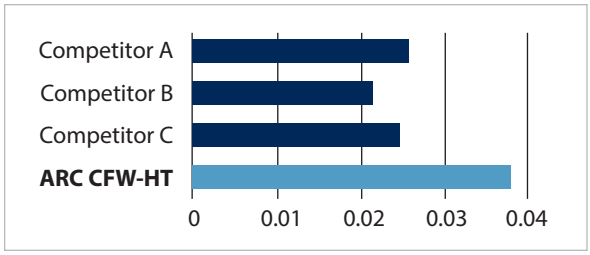
The Chesterton® ARC Carbon Fiber Wrap Systems, ARC CFW-CR and ARC CFW-HT, provide structural repair solutions. Once treated with a proprietary epoxy blend, these specialty carbon fiber wraps provide structural repair solutions for damaged pipes, tanks, and other specialty repairs.

Features and Benefits

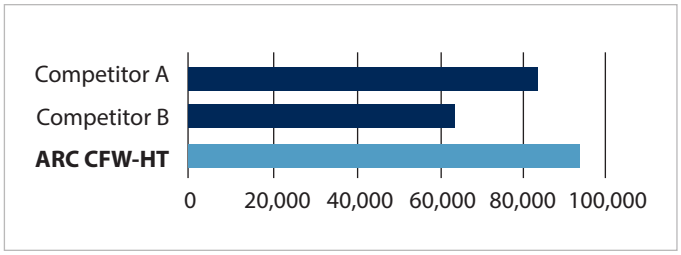
- In-field structural repairs—reduce down time
- Structural repairs—avoid high costs associated with piping or equipment replacement
  - Repair pipes up to 24" diameter (custom solution available for larger diameter pipes)
  - Repair active leaks and through wall failure
- Versatility of use—excellent adhesion to concrete, steel, fiberglass, aluminum, and other common substrates

Competitor Advantages

CARBON PLY THICKNESS (INCHES)



TENSILE STRENGTH (PSI)



CHESTERTON®
Global Solutions, Local Service.

Industries

Power, chemical, oil and gas, pulp and paper, water and wastewater, steel, mining and ore processing, institutional

Applications

Tanks, pressure vessels, pipes, elbows, flanges, equipment casings, heat exchanger shells, ducting, structural beams

Item#	Packaging Includes	Coverage
ARC CFW-CR 086972 **ARC CFW-HT 086973**	• 2 × 250 g packs of ARC 858 • 1.2 gallons of ARC CFW-CR or ARC CFW-HT saturating resin blend • 12" x 3.5' bidirectional glass fiber mat • 12" x 18.75' bidirectional carbon fiber	20ft²

Technical Properties	ARC CFW-HT	ARC CFW-CR
Ply thickness	0.038"	0.038"
Tensile strength	90,500 psi	95,600 psi
Tensile modulus	7.46 msi	4.29 msi
Pot life	50 min	50 min
Set time	2 hours	2 hours
Temperature resistance	300°F	200°F

Product Case Study

Challenge

Issue

A potential leak of chlorine-based dust in a bag house was detected less than one week into a two-week maintenance shutdown at a chemical plant. Conventional cut/weld repair required 10 days and involved scaffolding and hot work permits. Estimated costs for repair was $180,000.

Goals

Repair the corroded bag house walls in a more cost-efficient manner within the two-week maintenance shutdown time.

Solution

Preparation

The surface was power tool cleaned to SP 10 finish. **Chesterton® ARC 858 Abrasion Control Compound** was used as faring compound to smooth heavily pitted steel surfaces prior to applying carbon fiber layers.

Application

Five layers of **Chesterton ARC CFW-CR** were used to repair the breaches after the cleaning. Once the breaches were sealed and set, a protective top coat of **Chesterton ARC CS2 Coating** was applied and cured to help ensure maximum chemical resistance.

Results

Increased Reliability

The plant was able to meet startup requirements with no lost time. There were no signs of leaks at startup and the customer saved over$150,000. in traditional repair costs.

The **ARC CFW-CR** repairs cost $35,000. for materials and labor and allowed for in situ structural repairs without costly and time-consuming scaffolding and labor-intensive cutting welding.

$ = USD

Bag house structure with corroded breach.

ARC CFW-CR applied to breach after preparation.

ARC CS2 applied as top coat over CFW-CR repairs.

Chesterton ISO certificates available on chesterton.com/corporate/iso

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Sell Sheet - English
3/26