

StrongHold™ Bowing Wall Carbon Fiber Repair System (STR-KIT-BW-516-06)

The StrongHold™ Bowing Wall Carbon Fiber Repair System System is a high strength uni-axial carbon fabric designed to structurally strengthen basement walls to resist bowing.

Advantages

- Stops bowing in basement walls
- Structural repair
- Simple installation
- Adds only 1/16-th of an inch to the repaired surface
- Corrosion Resistant

Packaging

- 64-ft kits (STR-BW-516-06-064)

Accessories

- Tack Coat Paste
- ShapeShift™ High Build Polymer
- Topcoats
- mixing sticks
- gloves
- mixing paddles
- paint trays

**Sold Separately*

Typical Data & Physical Properties		
Storage Conditions	Store dry 65°F to 85°F (18°C to 29°C), do not over-stack boxes	
Color	Black	
Tensile Strength (ASTM D3039)	150,000 psi	1,034 MPa
Modulus of Elasticity (ASTM D3039)	12,530 ksi	86,391 MPa
Elongation @ Break (ASTM D3039)	1.17%	
Single Ply Thickness	0.047 inches	1.19 mm
Compressive Strength (ASTM D695)	11,000 psi	75.8 MPa
Shore D Hardness (ASTM D2583)	78	

Installation Procedure for StrongHold™ Bowing Wall Carbon Fiber Repair System

DESIGN SPECIFICATIONS	
Certified Installer Company Name	
Certified Technician(s)	
Job #	
Project Name	

MATERIAL HANDLING & STORAGE						
<input type="checkbox"/>	Product was stored between 65°F and 80°F					
<input type="checkbox"/>	Packing Slip has been verified against order and design calculations					
Record	Primer	Filler	ShapeShift	Saturant	Fabric	Topcoat
Item Code						
QTY						
LOT #'s						
EXP						

ENVIRONMENTAL CONDITIONS	
<input type="checkbox"/>	Surface Temperature Use an infrared thermometer to obtain value and record below: _____(°F) _____(°C)
<input type="checkbox"/>	Ambient Temperature Use a digital temp gauge to obtain value and record below: _____(°F) _____(°C)
<input type="checkbox"/>	Surface Temperature is > (5°F/3°C) above Dew Point Surface Temp _____(°F) _____(°C) – Dew Point _____(°F) _____(°C) = VALUE _____(°F) _____(°C)

SURFACE PREP		
<input type="checkbox"/>	Surface Repair Guidelines were followed	Remove concrete laitance and repair cracks & unsound concrete or masonry
<input type="checkbox"/>	Minimum surface profile was achieved & verified	Surface profile shall be flat and have a texture like 60-grit sandpaper
<input type="checkbox"/>	Surface is clean & dry	Confirm that surface moisture is < 5% Confirm surface is dust free by performing coin dust test
INSTALLATION		
<input type="checkbox"/>	Prime the surface with 7-10 mils StrongHold™ Primer Start by pouring the entire contents of Primer Polymer Part B into the container marked Part A. Mix for 3 minutes using a low speed drill at 400-600 RPM. Using a brush or roller, nap apply the primer to 100% of repair area. Make sure surface is saturated to rejection. No dry spots shall be visible in the prepared area after priming	
<input type="checkbox"/>	Fill Mortar Joints, Pits, & Smooth Transitions StrongHold™ Tack Coat – if required* Start by pre-mixing the Part A for 3 mins until completely smooth and consistent. Then pour the entire contents of Filler Part B into the container marked Part A. Mix for 3 minutes using a low-speed drill at 400-600 RPM. Apply tack coat to fill mortar joints, pits, bug holes, and surface irregularities. Use tack coat to make transitions over high spots using a 3:1 transition. <i>*Tack Coat is sold separately – See Accessories</i>	
<input type="checkbox"/>	Saturate the carbon fabric using StrongHold™ Saturant Start by pouring the entire contents of Saturant Polymer Part B into the container marked Part A. Mix for 3 minutes using a low-speed drill at 400-600 RPM. Unwrap the carbon fabric from its packaging. Unroll the carbon and prepare for wet-out and keep foreign matter off the dry fabric. Use a brush, roller nap, or spatula to fully wet out the carbon fiber on both sides. Roll the wet carbon fiber onto a clean core.	
<input type="checkbox"/>	Apply StrongHold™ Saturated Fabric to primed & prepared surface After saturating, press the saturated fabric onto the substrate and using a roller, apply pressure to the surface of the fabric to ensure good bonding. Roll out any trapped air before the polymer sets. Smooth with roller in all directions to remove air pockets. Overhead applications will require tack coat between layers. All bubbles, voids, and fiber disruptions shall be removed while fiber is still wet.	
<input type="checkbox"/>	Apply ChemSeal™ (or approved) Topcoats – if required* After all layers of fabric have been installed, apply designated ChemSeal™ Topcoat or other pre-approved coating. Topcoat shall cover 100% of surface area applied at designated minimum	

	thickness.
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POST-INSTALLATION INSPECTION & REPAIR		
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<input type="checkbox"/>	Visual Inspection	A visual inspection shall be performed to detect defects such as but not limited to dry fiber, voids, bubbles, insufficient overlaps.
<input type="checkbox"/>	Acoustic Tap-Test	An acoustic tap test shall be performed to detect voids and delamination between the composite repair and surface.
<input type="checkbox"/>	QC Repair	All anomalies requiring repairs shall be performed prior to return to service.

CURE		
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<input type="checkbox"/>	Surface Temps < 77°F / 25°C (Shore D of 78 required)	A minimum 72 hours of cure time has been achieved.
<input type="checkbox"/>	Surface Temps > 77°F / 25°C (Shore D of 78 required)	A minimum 24 hours of cure time has been achieved.

NOTE:
 Cure times can be decreased by adding heat to the repair location.
 Consult with HJ3 for a specific cure schedule associated with elevated temperatures.