DRICORE™ PRO CONCRETE REPAIR BOWED WALL REPAIR INSTRUCTIONS 560GSM

2311 Royal Windsor Drive Unit 2
Mississauga, Ontario, Canada
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WHAT COMES IN THE BOWED WALL REPAIR KIT?

KIT INCLUDES (TOOLS MAY VARY DEPENDING ON PROJECT)

- (3) 5.5" wide carbon fiber straps (length is determined by kit)
- (2) Tubes of DRICORE™ PRO Concrete Repair Saturant-Adhesive Epoxy
- (2) Static epoxy mixing nozzles
- (6) Bolts and washers
- (3) Sill plate brackets
- Gloves and Instructions

PRODUCTS COMMONLY USED WITH BOWED WALL REPAIR

DRICORE™ PRO Concrete Repair Dual Epoxy Gun

300/300 ml or 300/150 ml gun

DRICORE™ PRO Concrete Repair High Strength Anchoring Epoxy Paste

Used to fill cracks

RECOMMENDED POWER TOOLS (TOOLS MAY VARY DEPENDING ON PROJECT)

5-Inch Surface Grinding Dust Shroud Kit

Use for grinding foundation wall
**USE DIAMOND CUP WHEEL

10-Gallon Dust Extractor

Collects dust while attached to grinder and shroud tools

Tuck Point Grinder with Dust Shroud Attachment

Use to tuckpoint the wall
**USE DIAMOND TIP BLADE

Hammer Drill

Use for concrete removal
**USE CHISEL OR SPADE TIP ATTACHMENT

YOU WILL ALSO NEED...

- Safety goggles
- Respirator mask
- Epoxy gun
- Coveralls
- Drop cloth / plastic
- Scissors
- Marker
- Hard hat
- Putty knife
- Measuring tape
- Power drill (1/4" Bit)

SAFETY WARNINGS

Please read and follow safety procedures for all tools and wear proper safety equipment during installation.

While using power tools, follow all EPA/OSHA guidelines for lead paint removal and respiratory protection. For more information visit www.epa.gov or www.osha.gov.

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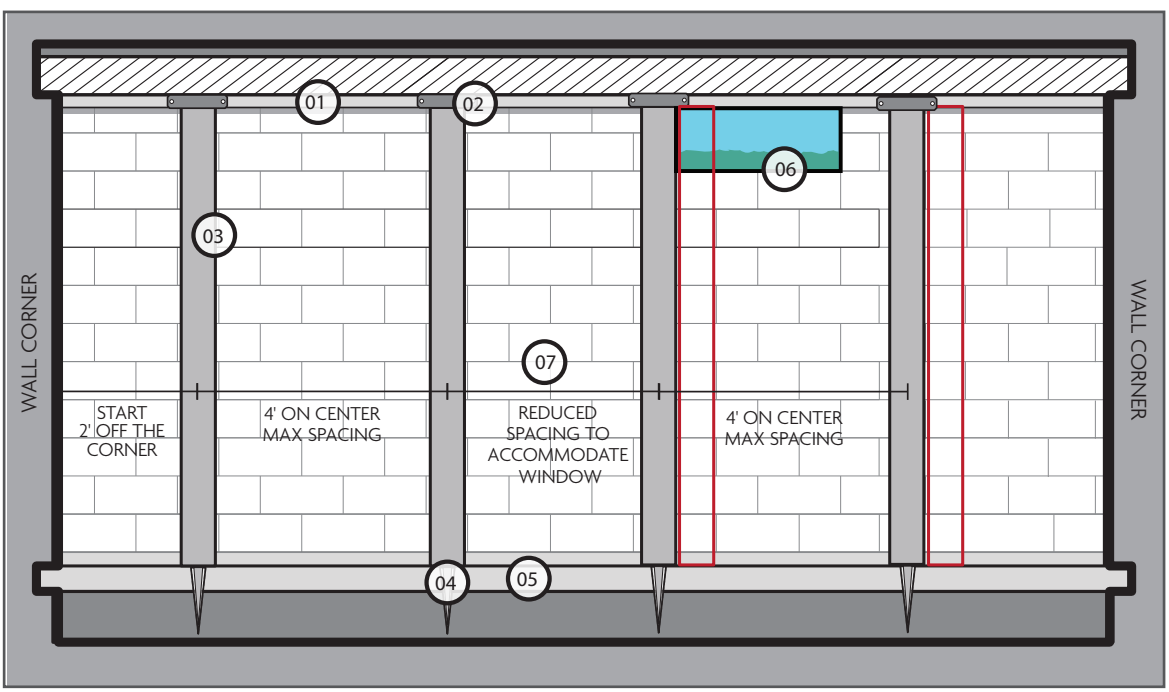
PLEASE READ ALL DIRECTIONS CAREFULLY & WEAR SAFETY GOGGLES DURING INSTALLATION

01 PREP AND GRIND

- Lay plastic or drop cloth around work surface
- Measure and mark locations of the straps
- Grind the vertical length of the foundation wall where carbon fiber strap will be installed. Remove paint, coatings and glossy surfaces to achieve a "Bare Foundation" (Even uncoated blocks need to be ground to expose the aggregate in the blocks)
- Round top corner of block where strap will be located
- Carbon Fiber strap should span from sill plate to floor
- Remove caulk/latex/loose mortar/etc. from mortar joints
- Use opposing mortor joints as a guide

*READ AND FOLLOW ALL EPA AND OSHA SAFETY PRACTICES

Tools: marker, measuring tape, plastic or dropcloth, grinder



01: Sill Plate
02: Sill Plate Bracket
03: Carbon Fiber Strap
04: Carbon Fiber Pin
05: Concrete Floor
06: Obstacle
07: Adjust spacing as necessary to avoid obstacles

Max spacing is 2' off corners and 4' on center across the wall.

Refer to spacing chart or project specific design for the appropriate strip spacing.

02 REPAIR CRACKS

- Repair all cracks by using hydraulic cement or DRICORE™ PRO Concrete Repair High Strengh Anchoring Epoxy Paste before installing carbon fiber

*Wall must be completely bare and clean with cracks/deep morter joints filled before applying carbon fiber

Tools: hammer drill, hydraulic cement or High Strengh Anchoring Epoxy Paste

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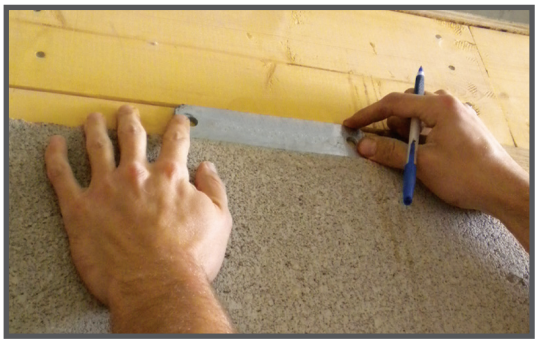


03 SILL PLATE PREP

- Mark drill holes with pencil or pen for the sill plate bracket
- Make sure the sill plate bracket is level with the top of the foundation wall and centered over the area where the strap will be installed
  *An uneven Bracket could cause splitting and damage to the sill plate
- Pre-drill holes using a 1/4" drill bit
- Pre-drilled holes will ensure a secure connection between the carbon fiber, sill plate

Tools: pencil/pen, power drill with 1/4" Bit

04 DRILL FOOTING

- Using a hammer drill, pre-drill a 3/4" hole at the center of the prepped carbon fiber location
- Drill hole as close to vertical as possible against the base of the wall
- If the floor is sound, pinning to the floor is sufficient
- If the floor is being removed or is deteriorated, remove floor and pin directly to the footer

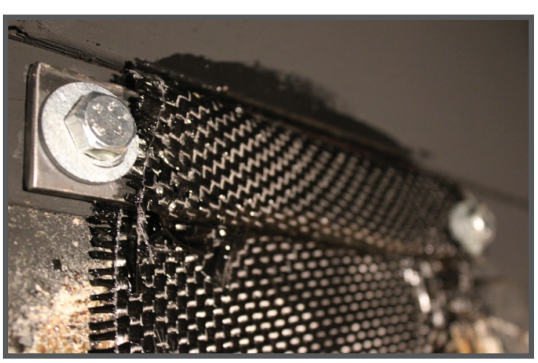
Tools: hammer drill,

05 ATTACH SILL PLATE

TIP: Lay carbon fiber on piece of cardboard

- Apply epoxy to the top 8" of the carbon fiber, spread epoxy so that the strap is saturated
- Lay bracket flush with the top of carbon fiber
- Roll bracket and carbon fiber twice and ensure the wrap is tight

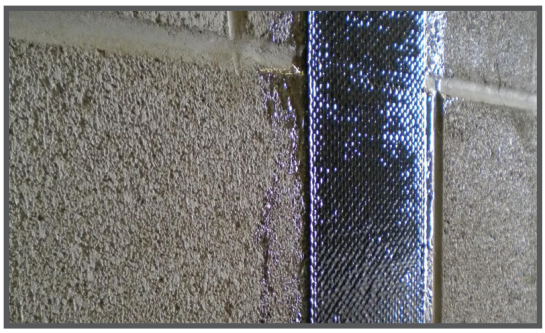
Tools: tape measure, latex gloves and epoxy gun



06 MOUNT

- Mount the saturated carbon fiber wrapped sill plate bracket unit
- Check for level of sill plate bracket to ensure a secure fit to sill plate
- Fasten sill plate bracket to the sill plate using the supplied (2) 3/8" x 2" lag bolts and (2) washers

Tools: drill, level, lag bolts and flat washers



07 EPOXY

TIP: Roll carbon fiber and sit on sill plate ledge so that it is out of the way
- Apply an even coat of epoxy to the wall over the entire area where the strap will meet the wall
- Once a sufficient coating of epoxy is applied to foundation wall, lay the carbon fiber strap over the applied epoxy making sure that the carbon fiber strap is straight and tight
- Work the carbon fiber into the epoxy with trowel, spatula, roller, or gloved hands
- Apply a second layer of epoxy on top of the carbon fiber and lightly spread the epoxy with a putty knife to provide an even finish

Tools: putty knife, gloves, epoxy adhesive, epoxy gun, static nozzle

01: Lift carbon fiber strap & apply epoxy to wall

02: Spread epoxy on foundation wall

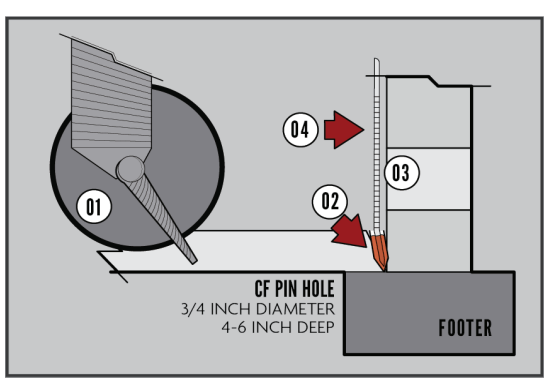
03: Apply carbon fiber strap & coat with epoxy

08 ANCHOR

- Secure bottom of the carbon fiber strap as per the diagram below
- If there is extra carbon fiber, cut the excess at this time (leave 6" to 8" of carbon fiber beyond the bottom of the wall for the sheer pin)
- Fill the hole with epoxy and saturate the remainder of the strap
- Fold bottom of strap to make a point (triangle tip) then twist to create the pin
- Insert pin into hole and top off with epoxy

FINAL STEP
- Use light strokes with putty knife to spread epoxy evenly, focusing on the edges for a clean and secure installation
- Make sure the strap is tightly adheared to the wall all the way to the floor

Tools: gloves, epoxy gun, putty knife



01: Fold and twist end of carbon fiber strap to make pin
02: Fill hole with epoxy and place carbon fiber twisted pin inside hole
03: After pin is inserted, make sure strap is tightly adheared to wall
04: Top off hole with epoxy

** When waterproofing, or if floor is deteriorated, the strap can be pinned to the footer.

Apply epoxy to hole

Twist carbon fiber and insert into hole

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01: PRODUCT & COMPANY IDENTIFICATION

Product Name: DRICORE™ PRO Concrete Repair Saturant-Adhesive Epoxy
Common Name: Polyamine
Company Address: 2311 Royal Windsor Drive Unit 2
Mississauga, Ontario, Canada L5J 1K5
P: +1 866 767 6374
E: info@dricore.com

Chemical Family: Polyamine
Synonyms: Amines Liquid Corrosive
Product Use: Epoxy Bonding Agent
Emergency Phone: CHEMTREC 1 800 424 9300

02: HAZARDS IDENTIFICATION

GH Glassification

HEALTH HAZARD	CATEGORY
Skin Corrosion	1B
Serious Eye Damage	1
Skin Sensitization	1

Hazard Statement
H314: Causes severe skin burns and eye damage
H317: May cause an allergic skin reaction

Precautionary Statement

Inhalation:	Harmful if inhaled and may cause delayed lung injury. Can cause severe respiratory tract burns. Risk of serious damage to the lungs. May cause nose, throat and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.
Skin Contact:	Causes skin burns.
Eye Contact:	Causes eye burns. May cause blindness. Severe eye irritation.
Ingestion:	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Prolonged exposure	Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat, Eye disease, Skin Disorders and Allergies.

03: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:

Cas#	Chemical Name	%	OSHA PEL	ACGUH TLV
Component A				
25085-99-8	Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	>80%	NE	NA
68609-97-2	Aliphatic Glycidyl Ether <20% NE NE			
CE330 Part B				
84852-15-3	Nonylphenol	>40%	NE	NE
140-31-8	Aminoethylpiperazine	<10%	NE	NE
9046-10-0	Polyoxypropylenediamine	<30%	NE	NE
90-72-2 2,4,6	Tri (dimethylaminomethyl)phenol	<10%	10 mg/m3	5 mg/m3
112-24-3	Triethylenetetramine	<10%	NE	NE

None of the remaining components are considered a hazardous material or carcinogen (1910.1200 Hazard Communication (d) 4.)
NE= Not Established NA=Not Applicable

04: FIRST AID MEASURES

General Advice:	Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped trained personnel should begin cardiopulmonary resuscitation immediately.
Inhalation:	If respiratory irritation occurs, go to fresh air, flood work area with fresh air. If irritation continues seek medical attention.
Skin Contact:	Remove contaminated clothing and shoes. Wash affected area(s) throughly with soap and water. If irritation persists, seek medical attention. SOLVENTS SHOULD NOT BE USED because they carry the irritant into the skin.
Eye Contact:	Flush the eyes with plenty of water for at least 15 minutes. If necessary, gently hold eyelids open during the flush. Immediately seek medical attention.
Ingestion:	Obtain immediate medical attention. Do not induce vomiting. Should vomiting occur, be sure to keep victim's head below hips to avoid aspiration of vomit into the lungs.

05: FIRE FIGHTING MEASURES

Special Fire Fighting Prodedures: none. Avoid breathing smoke. NFPA Class B-C extinguisher (dry chemical or foam) for class 1C fires. Water spray may be ineffective on fire but can protect fire-fighters and cool closed containers. Use fog nozzels if water is used. Use supplied breathing masks.

Protection of firefighters: Fire may produce irritating, corrosive and/or toxic gases. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots and in enclosed spaces SCBA. Structural firefighters protective clothing will only provide limited protection.

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06: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Keep people away from and upwind of spill/leak. Avoid inhalation of vapors and spray mists. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Follow facility/company's emergency plans.
Small Spills:	Absorb with an inert material (sand, vermiculite). Sweep or scoop up and put into disposal containers. Flush area immediately with water (prevent water from entering waterways).
Large Spills:	Dike area far ahead of liquid spill for later disposal. Do not release into sewers or waterways. Absorb with an inert material (sand, vermiculite). Sweep or scoop up into disposal containers. Flush area immediately with water (prevent water from entering waterways)
Regulatory Requirements: wearing	Follow applicable OSH regulations (29 CFR 1910.120). Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not

07: HANDLING AND STORAGE

Handling Precautions:	For professional use only. Avoid eye/skin contact. Wash after using and before eating or smoking. Avoid breathing vapors. Use as directed. Avoid uncontrolled mixing with other mixtures (stong acids,bases and oxidizers). Do not use solvent to thin. Respiratory protection is required when ventilation is inadequate. NIOSH/OSHA approved respirators should be provided and worn.
Storage Requirements:	Store in cool/dry location. Do not allow material to freeze, as product may be damaged. Store away from sparks and open flames.

08: EXPOSURE CONTROLS/PERSONAL PROTECTION

HMIS PP, H I Splash Goggles, Gloves, Apron, Vapor Respirator

VENTILATION:	Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents containment dispersion into the work area controlling it as its source.
RESPIRATORY PROTECTION:	Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and if necessary, wear OSHA/NIOSH approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen.
PROTECTIVE CLOTHING/EQUIPMENT:	Wear chemically protective gloves, boots and aprons to prevent prolonged or repeated skin contact. Wear protective goggles and face shield, per OSHA eye and face protection (29 CFR 1910.133).
CONTAMINATED EQUIPMENT:	Separate contaminated work clothing from street clothing. Launder before reuse. Remove this material from your work shoes and clean personal protective equipment.
OTHER PRECAUTIONS:	Never eat, drink or smoke in work areas.

This material is not listed by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

09: PHYSICAL & CHEMICAL PROPERTIES

Appearance:	Part A (Clear to light amber)	Part B (Amber)	Evap Rate:	Slower than Butyl Acetate
Physical State	Liquid		Viscosity:	Brookfield 500 cps (Part A) and 80 cps (Part B)
Boiling Point:	ND		Percent Volatile:	0
Odor:	Part A (Mild)	Part B (Amine odor)	Flash Point:	>200° F
Freezing/Melting Point:	ND/NE		Flash Point Method:	Pensky Martens Closed Cup
pH:	ND		Burning Rate:	No data available
Solubility:	Insoluble		Autoignition Temp:	No data available
Vapor Pressure:	NE			
Vapor Density:	(Air = 1) > 1			
Spec Grav./Density:	Part A (1.19)	Part B (.97)		
VOC:	0			

10: STABILITY AND REACTIVITY

Stability:	Stable
Conditions to Avoid:	None
Materials to Avoid:	Strong oxidizers,acids and bases
Hazardous Decomposition Products:	CO, CO2, NOX
Hazardous Polymerization:	None

11: TOXICOLOGICAL INFORMATION

Inhalation:	Harmful if inhaled and may cause delayed lung injury. Can cause severe respiratory tract burns. Risk of serious damage to the lungs. May cause nose, throat and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.
Skin Contact:	Causes skin burns.
Eye Contact:	Causes eye burns. May cause blindness. Severe eye irritation.
Ingestion:	If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
Prolonged exposure	Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat, Eye disease, Skin Disorders and Allergies.

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage.

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12: ECOLOGICAL INFORMATION

Aquatic toxicity	Very toxic to aquatic organisms, may cause long term adverse effects in the
Toxicity to other organisms:	No data available

13: DISPOSAL CONSIDERATIONS

When disposed of properly, this material does not meet RCRA classification or listing for hazardous waste. Never dispose of liquid to a landfill. Spilled material should be stabilized of solified prior to disposal. Once stabilized/solidified, the material may be disposed of through normal means. Certain localities and state laws have specific disposal requirements for non-hazardous industrial chemicals. Consult local municipal authorities, landfull personnel or disposal companies for details prior to any disposal activity. Always follow local, state and federal regulations.

14: TRANSPORT INFORMATION

Part A: Not hazardous for domestic ground shipment
Part A IMDG: UN 3082 Environmentally hazardous substance, liquid, n.o.s. (epoxy resin) 9 III MARINE POLLUTANT

Part B: UN 1760 Corrosive liquids, n.o.s. (nonylphenol) 8 III (ERG #154)
Part B IMDG: UN 1760 Corrosive liquids, n.o.s (nonylphenol) 8 III MARINE POLLUTANT
Segregation Group: 18 Alkalis
Placards required over 1,000 lbs.

15: REGULATORY INFORMATION

This product is a "Hazardous Chemical" as defined by the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories	Immediate Hazard	Yes
	Delayed Hazard	Yes
	Fire Hazard	No
	Pressure Hazard	No
	Reactivity Hazard	No
Section 302 Extremely hazardous substance		No
Section 311 Extremely hazardous chemical		Yes

State Regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

16: OTHER INFORMATION

Rating Scale: 0-4

HMIS II ratings:	Health = 3,	Fire = 1,	Reactivity = 2
HMIS III ratings:	Health = 3,	Fire = 1,	Physical Hazard = 2
NFPA ratings:	Health = 3,	Fire = 1,	Reactivity = 2

The information and recommendation in this document are based on the best information available to us at the time of preparation. We make no other warranty, expressed or implied, as to its correctness or completeness, or as to the results or reliance of this product.

This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

User Responsibility: The information in this document cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions, in addition to those described herein, are required. Any health hazard and safety information herein should be distributed to customers or employees as applicable.

17: DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate and current as of the date of this MSDS. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representation or warranties, either expressed or implied, as to its correctness or completeness, or as of merchantability, fitness for a particular purpose, or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers or as to the results or reliance of this product. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

END OF MSDS DOCUMENT