



MIAMI-DADE COUNTY
BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 372-6339

NOTICE OF ACCEPTANCE (NOA)

www.maimidade.gov/buildingcode

Protective Coating Co.
221 South 3rd Street
Allentown, PA 18102

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: PC Concrete Epoxy Anchoring System

APPROVAL DOCUMENT: Drawing No. **J31502**, Sheets 1 through 2 of 2, titled "PC Concrete – Injectable Repair and Anchoring Epoxy", dated 07/21/08, with no revisions, prepared by Protective Coating Co., signed and sealed by Lee W. Mattis, P.E., bearing the Miami-Dade County Product Control approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: None

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA consists of this page 1 and evidence page E-1, as well as approval document mentioned above. The submitted documentation was reviewed by **Carlos M. Utrera, P.E.**



Utrera
 9/12/08

NOA No. 08-0520.10
Expiration Date: January 13, 2011
Approval Date: October 2, 2008
 Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. **J31502**, Sheets 1 through 2 of 2, titled "PC Concrete – Injectable Repair and Anchoring Epoxy", dated 07/21/08, with no revisions, prepared by Protective Coating Co., signed and sealed by Lee W. Mattis, P.E.

B. TESTS

	<u>Test Report</u>	<u>Standard</u>	<u>Date</u>	<u>Signature</u>
1.	ATEC # 22028	ASTM E488	09/17/92 & 11/17/92	P.G. Read, P.E.
2.	ARL # 29779	ICBO AC 58	10/20/98	C. A. Hamon, P.E.
3.	ARL # 29789	ICBO AC 58	10/20/98	C. A. Hamon, P.E.
4.	ARL # 30165	ICBO AC 58	06/15/01	C. A. Hamon, P.E.
5.	ARL # 29864	ICBO AC 58	11/16/98	C. A. Hamon, P.E.
6.	ARL # 29863	ICBO AC 58	11/16/98	C. A. Hamon, P.E.
7.	ARL # 29742	ICBO AC 58	10/20/98	C. A. Hamon, P.E.
8.	ARL # 29739	ICBO AC 58	10/07/98	C. A. Hamon, P.E.
9.	ARL # 29740	ICBO AC 58	10/15/98	C. A. Hamon, P.E.
10.	ARL # 30170	ICBO AC 58	01/05/01	C. A. Hamon, P.E.
11.	ARL # 30172	ICBO AC 58	01/09/01	C. A. Hamon, P.E.
12.	ARL # 29890A	ICBO AC 58	02/15/99	C. A. Hamon, P.E.
13.	ARL # 30171	ICBO AC 58	01/05/01	C. A. Hamon, P.E.
14.	ARL # 30254	ICBO AC 58	06/01/01	C. A. Hamon, P.E.
15.	ARL # 29776	ICBO AC 58	10/07/98	C. A. Hamon, P.E.
16.	ARL # 29777	ICBO AC 58	10/15/98	C. A. Hamon, P.E.
17.	ARL # 29786	ICBO AC 58	10/07/98	C. A. Hamon, P.E.
18.	ARL # 29787	ICBO AC 58	10/15/98	C. A. Hamon, P.E.

"Submitted under NOA # 06-0111.05"

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

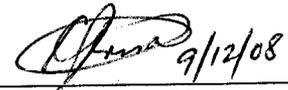
1. Miami Dade Building Code Compliance Office (BCCO).

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENT

1. None change letter issued by Adhesives Technology, dated 05/12/08, signed by Richard Boland and notarized by Miriam M. Carter.



Carlos M. Utrera, P.E.

Product Control Examiner

NOA No. 08-0520.10

Expiration Date: January 13, 2011

Approval Date: October 2, 2008

DESCRIPTION:

PC CONCRETE - INJECTABLE REPAIR AND ANCHORING EPOXY

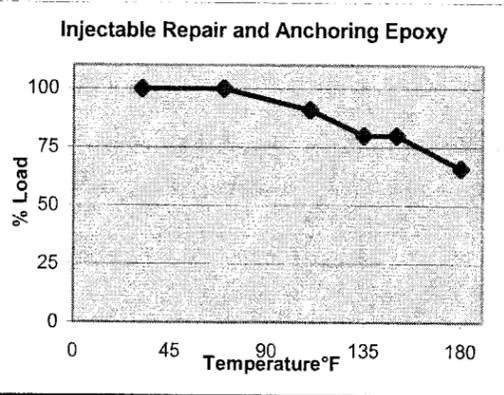
PC CONCRETE - Injectable Repair and Anchoring Epoxy is a two component 100% solid epoxy designed to achieve high strength when anchoring in solid concrete. The epoxy is contained in a single, two component cartridge and dispensed in a 1 to 1 ratio.

TABLE 1
Allowable Loads for Threaded rods in 2000psi Concrete ¹²³⁴

Anchor Diameter	Embedment Depth [in.]	Critical and Minimum Edge [in.]	Allowable Tensile Load (lbs)	Allowable Shear Load (lbs)
3/8"	3 3/8"	6 3/4"	2,312	1,796
1/2"	4 1/2"	9"	5,582	3,215
5/8"	5 5/8"	11 1/4"	7,487	5,714
3/4"	6 3/4"	13 1/2"	9,819	8,075
7/8"	7 7/8"	15 3/4"	13,465	9,053
1"	9"	18"	15,674	13,037
1 1/4"	11 1/4"	22 1/4"	22,148	17,252
#4 rebar	4 1/2"	9"	5,800	2,810
#5 rebar	5 5/8"	11 1/4"	8,082	5,256
#6 rebar	6 3/4"	13 1/2"	10,391	8,072
#8 rebar	9"	18"	13,705	9,645

- 1] Working Time 18 to 20 minutes at 80 °F with 20 gram mass.
- 2] Minimum load time 4 hours at 80 °F.
- 3] Adhesive performance is affected by the temperature of the environment. (See Table

TABLE 2
Allowable Load Reduction Factor for Temperature Sensitivity



Substrate Temp.	Adj. %
32	100
70	100
110	91
135	80
150	80
180	66

NOTES :

- 1] Allowable Loads equal to ultimate loads divided by a safety factor of 4.
- 2] Testing performed with A 193 B7 steel threaded rod or A 615 Grade 60 reinforcing steel as indicated in tables. Compare loads to allowable loads for steel strength (Table 3 & 4) and use the lower value.
- 3] Allowable loads applicable to normal weight concrete only. Allowable loads valid for minimum spacing distance of 1.75 x embedment depth.
- 4] Minimum concrete thickness equals 1.5 x embedment depth.
- 5] Tabulated allowable loads are based on the strength of the steel. These values must be compared to the allowable loads for the anchors, based on the adhesive bond strength. The lesser of the value shown above and the value shown in the tables in this evaluation report for the bond strength of the adhesive anchors must be used for the allowable value of the threaded bar installed with adhesives.

TABLE 3
ALLOWABLE TENSION AND SHEAR LOADS FOR THREADED ROD BASED ON STEEL STRENGTH ⁵

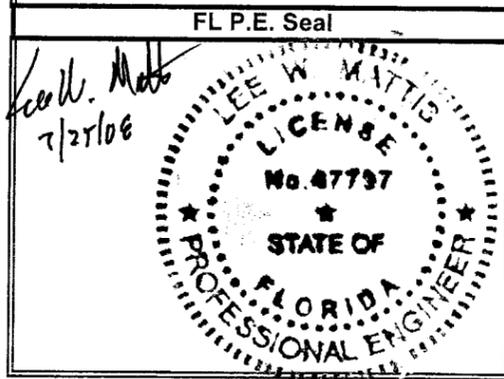
ROD SIZE	TENSION (pounds)			SHEAR (pounds)		
	Type of Steel			Type of Steel		
	A 307	A193 Grade B7	AISI 304-SS	A 307	A193 Grade B7	AISI 304-SS
3/8"	2,115	4,555	3,645	1,090	2,170	1,870
1/2"	3,755	8,100	6,480	1,935	3,895	3,330
5/8"	5,870	12,655	10,125	3,025	6,125	5,220
3/4"	8,455	18,225	12,390	4,355	8,855	6,390
7/8"	11,510	24,805	16,865	5,930	12,105	8,680
1"	15,030	32,400	22,030	7,745	15,810	11,340
1-1/4"	23,490	50,620	34,425	12,100	26,080	17,735

TABLE 4
ALLOWABLE TENSION AND SHEAR LOADS FOR REINFORCING BAR ROD BASED ON STEEL STRENGTH PER ASTM A615 ⁵

ROD SIZE	BIT DIAMETER	TENSION (pounds)		SHEAR (pounds)	
		Type of Steel		Type of Steel	
		Grade 40	Grade 60	Grade 40	Grade 60
#3	1/2"	2,200	2,640	1,310	1,680
#4	5/8"	4,000	4,800	2,380	3,060
#5	3/4"	6,200	7,440	3,690	4,740
#6	7/8"	8,800	10,560	5,240	6,730
#7	1"	12,000	14,400	7,140	9,180
#8	1-1/8"	15,800	18,960	9,400	12,085

TABLE 5
INSTALLATION INSTRUCTIONS: Recommended minimum distances for 100% allowable loads.

Anchor Diameter	Hole Diameter	Recommended Torque Range [ft.-lbs.]
3/8"	7/16"	12-15
1/2"	9/16"	22-26
5/8"	3/4"	50-60
3/4"	7/8"	90-105
7/8"	1"	140-185
1"	1-1/8"	190-275
1-1/4"	1 3/8"	300-380



Rev No.	REVISIONS	Date

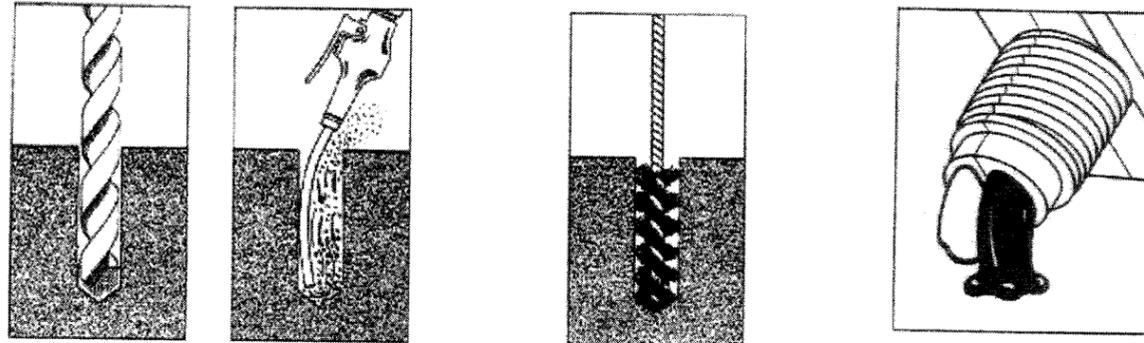
For Office Use
 Approved as complying with the Florida Building Code
 Date 10/02/2008
 NOA# 08-0520.10
 Miami Dade Product Control Division
 By *[Signature]*

PC Protective Coating Co, Inc.
 221 South Third Street
 Allentown, PA 18102

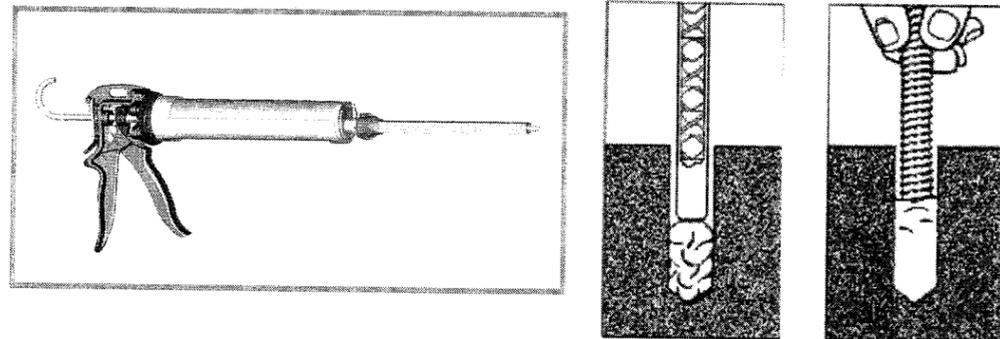
TITLE: PC CONCRETE - Injectable Repair and Anchoring Epoxy
 Drawing Number J31502 Sheet Number 1 of 2 Drawing Date 7/21/08
 Product approval #: Drawn By: J. H.

INSTALLATION INSTRUCTIONS

Epoxy Installation into Concrete

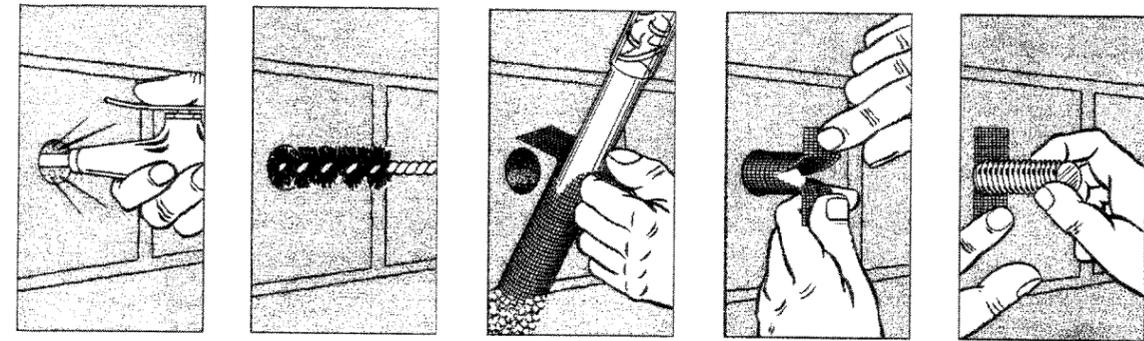


1. Drill hole to proper diameter and length.
2. Blow out dust from the bottom of the hole.
3. Brush the hole with a nylon brush. Blow out the hole again. The hole should be clean of any dust and debris.
4. Place the cartridge into the dispensing gun. Remove the plastic caps from the cartridge. Dispense a small amount of epoxy into a container until you get an even flow of both black and white material.



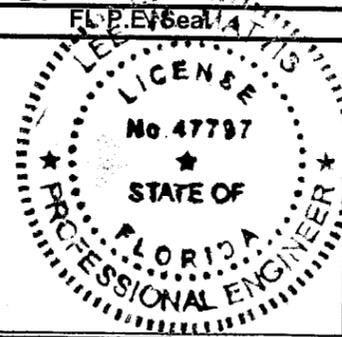
5. Place the nozzle on the cartridge. Dispense enough epoxy into a disposable container, until the color becomes a consistent gray color with no streaks.
6. Dispense the material from the bottom of the hole up. Fill approximately 5/8 of the hole depth while slowly withdrawing the nozzle.
7. Insert the threaded rod to the bottom of the hole while turning clockwise. The threaded rod should be free from dirt, grease, oil or other foreign material. Do not disturb or bolt-up until minimum bolt-up time has passed.

Epoxy Installation into Unreinforced Concrete



1. Drill hole and blow out the dust from the hole.
2. Brush out the hole with a nylon brush. Blow out the dust one final time.
3. Insert the mixing nozzle into the bottom of the screen and completely fill the screen while withdrawing the nozzle. Fill the screen completely all the way to the top.
4. Insert the epoxy filled screen into the hole.
5. Insert the threaded rod or dowel all the way into the screen. Do not disturb the anchor or bolt up the anchor until minimum bolt up time.

Lee W. Math 7/25/08



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TITLE: PC CONCRETE-Injectable Repair and Anchoring Epoxy
 Drawing Number J31502 Sheet Number 2 of 2 Drawing Date 7/21/08
 Product approval #: Drawn By: J. H.