



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/building

ITW Buildex, a division of Illinois Tool Works, Inc.

**155 Harlem Ave.
Glenview, IL 60025**

SCOPE: This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section 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 Section (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. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section 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: Tapcon Storm Guard Concrete Anchors

APPROVAL DOCUMENT: Drawing No. **23-70642**, titled "Tapcon SG Concrete Anchors", sheet 1 of 1, dated 02/13/06, with last revision dated February 16, 2024, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E., bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: None

LABELING: Each box shall bear a permanent label with the manufacturer's name or logo, Roselle, IL or Addison, IL 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 **revises NOA No. 22-0524.05** and consists of this page 1 and evidence page E-1, E-2, E-3 and E-4, as well as approval document mentioned above.

The submitted documentation was reviewed by **Ishaq I. Chanda, P.E.**

Ishaq I. Chanda



NOA No. 24-0117.12
Expiration Date: February 08, 2028
Approval Date: February 29, 2024
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under NOA No. 17-0919.02)
2. Drawing No. **20-32150**, titled "Tapcon SG Concrete Anchors", sheet 1 of 1, dated 02/13/06, with last revision dated 10/20/20, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.
(Submitted under NOA No. 21-0201.07)

B. TESTS

- | | <u>Test Report No.</u> | <u>Standard</u> | <u>Date</u> | <u>Signature</u> |
|----|------------------------|-----------------|-------------|-------------------|
| 1. | ARL-30498 | ASTM E488 | 11/18/05 | C. A. Hamon, P.E. |
| 2. | ARL-30500 | ASTM E488 | 04/12/19 | C. A. Hamon, P.E. |
| 3. | ARL-30499 | ASTM E488 | 02/28/19 | C. A. Hamon, P.E. |
| 4. | ARL-30602 | ASTM G85 | 04/12/19 | C. A. Hamon, P.E. |
| 5. | ARL-30503 | ASTM E488 | 02/28/19 | C. A. Hamon, P.E. |
| 6. | ARL-30502 | ASTM E488 | 02/28/19 | C. A. Hamon, P.E. |
| 7. | ARL-30501 | ASTM E488 | 02/28/19 | C. A. Hamon, P.E. |
| 8. | ARL-30496 | ASTM E488 | 02/28/19 | C. A. Hamon, P.E. |
| 9. | ARL-30497 | ASTM E488 | 04/05/19 | C. A. Hamon, P.E. |
- (Submitted under NOA No. 06-0222.07)*
10. Test report on tension and shear capacity of 1/4" dia. x 2-1/4" Tapcon Storm Guard Screw Anchors in concrete per ASTM E 488, prepared by CEL Consulting, Inc., Test Report No. **171356**, dated 07/24/17, signed and sealed by Lee W. Mattis, P.E.
(Submitted under NOA No. 17-0919.02)

C. CALCULATIONS

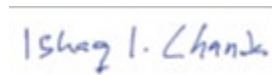
1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. None.



Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 24-0117.12
Expiration Date: February 08, 2028
Approval Date: February 29, 2024

ITW Buildex, a division of Illinois Tool Works, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS NOA's (CONTINUED)

F. STATEMENTS

1. Statement letter of conformance, complying with **FBC 7^h Edition (2020)** dated 01/07/21, issued by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.
(Submitted under NOA No. 21-0201.07)
2. No product change statement letter issued by ITW Buildex, dated 06/23/11, signed by Amy Kolczak and Michael Gong.
(Submitted under NOA No. 11-0616.04)
3. Statement letter of no financial interest dated 02/13/06, issued by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.
(Submitted under NOA No. 06-0222.07)

G. OTHERS

1. Notice of Acceptance No. **17-0919.02**, issued to ITW Buildex. for their Tapcon Storm Guard Concrete Anchors, approved on 02/08/18 and expiring on 02/08/23.

Ishaq I. Chanda

Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 24-0117.12
Expiration Date: February 08, 2028
Approval Date: February 29, 2024

ITW Buildex, a division of Illinois Tool Works, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. None.

B. TESTS

1. Test report on tension and shear capacity of 1/4" dia. x 2-1/4" Tapcon Storm Guard Screw Anchors for use in grout-filled and hollow concrete masonry per ASTM E 488, prepared by CEL Consulting, Inc., Test Report No. **171376**, dated 01/09/18, signed and sealed by Lee W. Mattis, P.E.
2. Test report on Corrosion Resistance (Salt Spray) per ASTM G 85-11, Annex A5, 140 cycles (280 hours) as detailed in TAS 114, Appendix E of: 3/16" x 2-3/4" & 1/4" x 2-3/4" Blue Tapcon, and 3/16" x 1-3/4" & 1/4" x 2-3/4" White Tapcon Flat Head Anchors, prepared by PRI Construction Materials Technologies, LLC, Test Report No. **PRI-2415T0001**, dated 10/14/21 thru 11/10/21 and signed and sealed by Duc Thanh Nguyen, P.E.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

1. Name change request to legal enterprise name of Illinois Tool Works, Inc. of which Buildex was and is a wholly owned brand and division of Illinois Tool Works, Inc., dated January 20, 2023 signed by Henry Schniedermeier, Engineering Manager, ITW Construction – Residential & Renovation
2. Affidavit affirming that Illinois Tool Works, Inc. (the Company) is a Delaware corporation, having its shares traded at the New York Stock Exchange (NYSE) and that the assets and business operations known as ITW Buildex are owned directly by the Company and are referred to as: ITW Buildex, a division of Illinois Tool Works, Inc., dated January 25, 2023, signed by Phillip McGovern, Assistant Secretary, Illinois Tool Works, Inc.

G. OTHERS

1. Notice of Acceptance No. **21-0201.07**, issued to ITW Buildex. for their Tapcon Storm Guard Concrete Anchors, approved on 05/06/21 and expiring on 02/08/23.



Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 24-0117.12
Expiration Date: February 08, 2028
Approval Date: February 29, 2024

ITW Buildex, a division of Illinois Tool Works, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

2. New evidence submitted

A. DRAWINGS

1. Drawing No. **23-70642**, titled "Tapcon SG Concrete Anchors", sheet 1 of 1, dated 02/13/06, with last revision dated February 16, 2024, prepared by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.

B. TESTS (submitted under previous approval)

1. None.

C. CALCULATIONS (submitted under previous approval)

1. None.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS


1. None.

F. STATEMENTS (items #2-4 submitted under previous approval)

1. Statement letter of code conformance to 8th edition (2023) FBC, prepared by Engineering Express, dated 01/11/2024, signed and sealed by Frank L. Bennardo, P.E.
2. Statement letter of conformance, complying with **FBC 7^h Edition (2020)** dated 01/07/21, issued by Engineering Express, signed and sealed by Frank L. Bennardo, P.E.
3. Name change request to legal enterprise name of Illinois Tool Works, Inc. of which Buildex was and is a wholly owned brand and division of Illinois Tool Works, Inc., dated January 20, 2023 signed by Henry Schniedermeier, Engineering Manager, ITW Construction – Residential & Renovation
4. Affidavit affirming that Illinois Tool Works, Inc. (the Company) is a Delaware corporation, having its shares traded at the New York Stock Exchange (NYSE) and that the assets and business operations known as ITW Buildex are owned directly by the Company and are referred to as: ITW Buildex, a division of Illinois Tool Works, Inc., dated January 25, 2023, signed by Phillip McGovern, Assistant Secretary, Illinois Tool Works, Inc.

G. OTHER

1. This NOA revises NOA No. **22-0524.05**, updated to FBC2023, expiring 02/08/28.



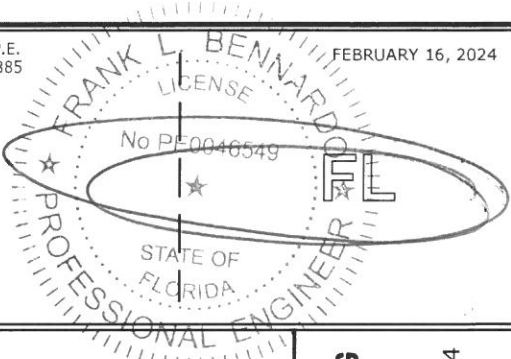
Ishaq I. Chanda, P.E.
Product Control Unit Supervisor
NOA No. 24-0117.12
Expiration Date: February 08, 2028
Approval Date: February 29, 2024

c:\users\milton\engineering\express\production - documents\projects\23-23-70642 2023 noa product update fl 22-0524.05\work\2023 fbc\drawings & cad\5 - 23-70642b noa dwg.dwg 2/16/2024 12:25 PM MILTON

"TAPCON® SG"
DIRECT MOUNT STORM PANEL ANCHORING SYSTEM

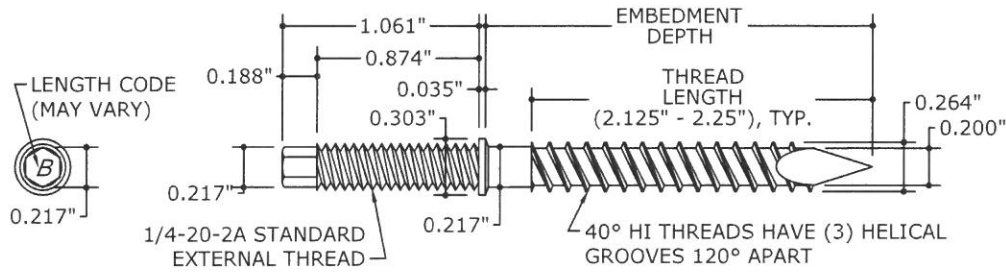
FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885

FEBRUARY 16, 2024

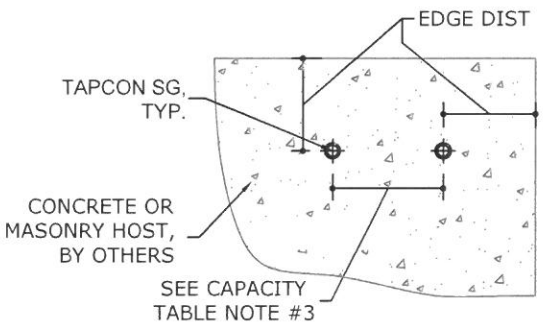


GENERAL NOTES:

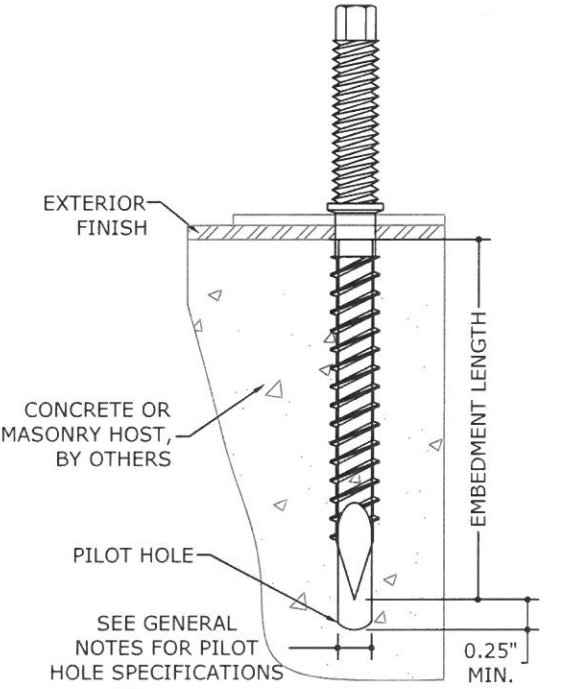
1. THIS PRODUCT HAS BEEN DESIGNED & TESTED IN ACCORDANCE WITH THE STRUCTURAL PROVISIONS OF THE FLORIDA BUILDING CODE EIGHTH EDITION (2023), FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, AND THE FOLLOWING STANDARDS: ASTM E488, ASTM G85, AND TAS 114.
2. ANCHOR INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS AND THIS NOTICE OF ACCEPTANCE.
3. CONCRETE SHALL CONFORM TO ACI 301 SPECIFICATIONS, WITH STRENGTH PROPERTIES AS SPECIFIED HEREIN. MASONRY SHALL CONFORM TO ASTM C-90.
4. ANCHORS REPRESENTED HEREIN ARE MANUFACTURED FROM HEAT-TREATED STEEL WITH AN ANCHOR YIELD STRENGTH $F_y=100$ KSI, ULTIMATE STRENGTH $F_u=125$ KSI. ANCHORS SHALL HAVE CORROSION-RESISTANT COATINGS AS DESCRIBED BELOW IN COMPLIANCE WITH THE FLORIDA BUILDING CODE:
 - TAPCON SG: ULTRASHIELD & WHITE ULTRASHIELD
5. PILOT HOLES FOR ALL INSTALLATIONS SHALL HAVE A DEPTH 1/4" LONGER THAN INDICATED EMBEDMENT DEPTH WITH 3/16" PILOT HOLES.
6. ALLOWABLE LOAD SHOWN=ULTIMATE LOAD DIVIDED BY 4.0 FOR SOLID NON-CRACKED CONCRETE SUBSTRATES AND 5.0 FOR MASONRY SUBSTRATES. NO ALLOWABLE STRESS INCREASE HAS BEEN USED IN PREPARATION OF THIS DOCUMENT.
7. ANCHORS SHALL NOT BE INSTALLED IN CRACKED CONCRETED SUBSTRATES, AS DEFINED IN ACI 355.2.
8. ANCHOR EDGE DISTANCES, EMBEDMENTS, AND SPACINGS BELOW THOSE SHOWN IN DESIGN TABLES HEREIN ARE NOT ACCEPTABLE.
9. ALLOWABLE LOAD CAPACITIES TO SUBSTRATES THAT ARE NOT SHOWN IN THE DESIGN TABLES LISTED HEREIN ARE OUTSIDE THE SCOPE OF THIS CERTIFICATION AND SHALL BE DETERMINED BY A LICENSED PROFESSIONAL ENGINEER.
10. ANCHOR VALUES LISTED HEREIN ARE DETERMINED THROUGH TESTING REPORT DATA AND CHECKED FOR CONSISTENCY WITH EACH TEST PERFORMED.
11. REFERENCE THE FOLLOWING TEST REPORTS:
 - CEL CONSULTING, INC.:
 - REPORT #171356 (6-24-2017)
 - REPORT #171376 (1-9-2018)
 - APPLIED RESEARCH LABORATORIES (ARL):
 - REPORT #30496 (11-18-2006)
 - REPORT #30497 (11-18-2006)



1 "TAPCON SG" SCREW
1 1:1 SCALE TOP & SIDE VIEWS



3 EDGE DIST. & SPACING
1 N.T.S. PLAN VIEW



2 TYPICAL SECTION
1 1:1 SCALE SIDE VIEW

PRODUCT REVISED
as complying with the Florida
Building Code
NOA-No. 24-0117.12
Expiration Date 02/08/2028
By Ishag I. Chande
Miami-Dade Product Control

TABLE 1: ALLOWABLE ANCHOR CAPACITIES
TO CONCRETE

CONC. COMPRESSIVE STRENGTH (f'_c)	EMBED.	3.00" EDGE DISTANCE		1-1/4" EDGE DISTANCE	
		TENSION	SHEAR	TENSION	SHEAR
2500 psi	1 3/4"	544 lb			
3000 psi	1 3/4"	599 lb	572 lb		
3295 psi	1 3/4"	711 lb	655 lb	676 lb	344 lb
3295 psi	1"	425 lb	583 lb	307 lb	335 lb

TABLE 2: ALLOWABLE ANCHOR CAPACITIES
TO MASONRY

MASONRY TYPE	EMBED.	2 1/2" EDGE DISTANCE		1-1/4" EDGE DISTANCE	
		TENSION	SHEAR	TENSION	SHEAR
GROUT FILLED BLOCK	1 3/4"	312 lb	320 lb	268 lb	131 lb
HOLLOW BLOCK	1 1/4"	171 lb	136 lb	138 lb	58 lb

TABLE 1 AND TABLE 2 NOTES:

1. ALLOWABLE LOAD SHOWN=ULTIMATE LOAD DIVIDED BY 4.0 FOR SOLID NON-CRACKED CONCRETE AND 5.0 FOR MASONRY SUBSTRATES.
2. EMBEDMENT VALUES LISTED CONSIDER FULL EMBEDMENT INTO THE CONCRETE/MASONRY SUBSTRATE. EMBEDMENT DEPTHS DO NOT CONSIDER THE THICKNESS OF WOOD BUCKS, STUCCO OR ANY EXTERIOR FINISHES. ALL FINISHES SHALL BE BY OTHERS AND SHALL NOT EXCEED 1/8" MAXIMUM, OTHERWISE THEY SHALL BE SEPARATELY CERTIFIED TO TRANSFER ALL LOADING TO THE PROJECT SUPERSTRUCTURE.
3. ANCHORS SHALL BE INSTALLED A MINIMUM OF 6.00" ON CENTER FOR 100% ANCHOR CAPACITY (AS LISTED IN TABLES). SPACING MAY BE REDUCED TO 3.00" ON CENTER PROVIDED THAT ANCHOR CAPACITIES ARE REDUCED TO 50% OF VALUES LISTED IN TABLES.
4. DESIGNATES CONDITIONS THAT ARE NOT ACCEPTABLE FOR USE.

ENGINEERING EXPRESS
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2234 NORTH FEDERAL HWY #7664
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ENGINEERINGEXPRESS.COM

Buildex
Buildex Division of Illinois Tool Works, Inc.
155 HARLEM AVENUE
GLENVIEW, IL 60025
CONCRETE ANCHORS
SG "TAPCON" (MALE)
FBC 8TH ED (2023) | MIAMI-DADE COUNTY (NOA)

REMARKS	DRWN	CHKD	DATE
PREV. SUBMITTAL (20-32150) CCB RWN 10/20/20			
2023 FBC UPDATE MRT RWN 12/19/23			

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23-70642
SCALE: NTS UNLESS NOTED