ITW CCNA
155 Harlem Avenue
Glenview, IL 60025
800-848-5611
Adhesive-Anchors@itwccna.com

ITW CCNA RED HEAD C6+ ADHESIVE ANCHORING SYSTEM IN MASONRY

CSI Section:
04 05 19.16 Masonry Anchors

1.0 RECOGNITION

The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry, recognized in this report, has been evaluated for use as an alternative to anchor bolts for connections to masonry. The structural performance properties of the Red Head C6+ Adhesive Anchoring System in Masonry comply with the intent of the provisions of the following codes and regulations:

- 2021, 2018, 2015, 2012, and 2009 International Building Code® (IBC)
- 2021, 2018, 2015, 2012, and 2009 International Residential Code® (IRC)
- 2023 Florida Building Code, Building (FBC–Building) – attached Supplement
- 2023 Florida Building Code, Residential (FBC–Residential) – attached Supplement
- 2022 California Building Code (CBC) – attached Supplement
- 2022 California Residential Code (CRC) – attached Supplement
- 2013 Abu Dhabi International Building Code® (ADIBC) – attached Supplement
- 2023 Los Angeles Building Code (LABC) – attached Supplement
- 2023 Los Angeles Residential Code (LARC) – attached Supplement

2.0 LIMITATIONS (UTILIZATIONS)

Use of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry, recognized in this report, is subject to the following limitations:

2.1 The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry shall be installed in accordance with the applicable code, the manufacturer's published installation instructions, and this report. Where conflicts between this report and the published instructions occur, the more restrictive shall prevail.

2.2 The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry is recognized for use to resist short-term and long-term loads, including wind and earthquake loads, in accordance with Section 3.2 of this report.

2.3 The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry shall be installed in holes predrilled into fully grouted concrete masonry with carbide-tipped drill bits complying with ANSI B212.15-1994.

2.4 Special inspection in accordance with Section 3.4 of this report shall be required for all anchor installations.

2.5 Prior to installation, calculations and details demonstrating compliance with IBC Sections 107 and 1603, TMS 402 Section 1.2, and this report shall be submitted to the building official. Calculations and details shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

2.6 Since an IAPMO UES Evaluation Criteria for evaluating data to determine the performance of adhesive anchors subjected to fatigue or shock loading is unavailable at this time, the use of the anchors for these loadings is outside the scope of this report.

2.7 The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry may resist tension and shear loadings in wall installations only if consideration is given to the effects of elevated temperature conditions on anchor performance. Figure 1 of this report describes load reduction factors for elevated temperatures.

2.8 Anchors are not permitted to support fire-resistive construction. Where not otherwise disallowed in the applicable code, the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry is permitted for use in fire-resistive construction, provided at least one of the following conditions is fulfilled:

- Anchors are used to resist wind or earthquake forces only.
- Anchors that support gravity load-bearing structural elements are within a fire-resistive envelope or a fire-resistive membrane, are protected by approved fire-resistive materials, or have been evaluated for resistance to fire exposure in accordance with recognized standards.
- Anchors are used to support nonstructural elements.

The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with IBC Section 104.11. This document shall only be reproduced in its entirety.

Copyright © 2025 by International Association of Plumbing and Mechanical Officials. All rights reserved. Printed in the United States. Ph: 1-877-4IESRPT • Fax: 909.472.4171 web: www.uniform-es.org • 4755 East Philadelphia Street, Ontario, California 91761-2816 – USA

2.9 Threaded rods, nuts, washers, and deformed reinforcing bars are standard elements and shall be identified according to the applicable national or international specifications.

2.10 Use of zinc-plated carbon steel threaded rods or steel reinforcing bars is limited to interior locations. Installations exposed to severe, moderate, or negligible exterior weathering conditions, as defined in Figure 1 of ASTM C62 (IBC or IRC), are permitted where stainless steel or zinc-coated anchors are used. Zinc coating shall be either hot-dipped in accordance with ASTM A153 with a Class C or D coating or mechanically deposited in accordance with ASTM B695 with a minimum Class 55 coating (minimum 2.1 mils (53 µm) thickness).

2.11 Anchors installed in masonry shall be installed in dry or damp holes, free of water.

2.12 The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry shall be installed in masonry having internal base material temperatures ranging from 50°F (10°C) to 110°F (43°C) at the time of anchor installation. Installation of anchors in base material having internal temperatures beyond this range is outside the scope of this report.

2.13 The anchors are restricted to use in uncracked masonry. Cracking may occur when $f_t > f_r$ due to service-level design loads or deformations. For masonry, f_r is defined in TMS 402 Section 3.1.8 (2011 and 2008 editions), or 9.1.9.2 of the TMS 402 (2016 and 2013 editions), and f_t is the flexural tensile stress in masonry.

2.14 When anchors are placed where the internal masonry temperature may surpass 70°F (21°C) in service, allowable loads in this report shall be adjusted for operating temperatures in accordance with Figure 1 of this report. The use of the C6+ Adhesive Anchoring System in base materials with interior temperatures above 176°F (80°C) in service is outside the scope of this report.

2.15 Steel anchoring materials in contact with preservative-treated and fire-retardant-treated wood shall be zinc-coated steel or stainless steel. Coating weights for zinc-coated steel shall be in accordance with ASTM A153 Class C or D.

2.16 Use of the ITW CCNA Red Head A7+ Adhesive Anchoring System in dry-stack masonry, as described in IBC Section 2114, is outside the scope of this report.

2.17 The ITW CCNA Red Head C6+ Adhesive Anchoring System recognized in this report is produced under a quality program with inspections under the supervision of IAPMO UES.

3.0 PRODUCT USE

3.1 General: The ITW CCNA Red Head C6+ Adhesive Anchoring System consists of post-installed, adhesive anchors used for anchoring building elements to concrete masonry. All cells of the masonry wall shall be grouted. The threaded steel rods and deformed steel reinforcing bars installed with Red Head C6+ Adhesive resist dead, live, seismic, and wind loads, as noted in Section 3.2 of this evaluation report. Post-installed anchors are alternatives to anchor bolts specified in Section 2107 of the IBC and Chapters 6 and 8 of the 2016 and 2013 TMS 402/ACI 530/ASCE 5, or Chapters 1 and 2 of 2011 and 2008 TMS 402/ACI 530/ASCE 5, as applicable.

3.2 Design:

3.2.1 General: Anchor capacities in this report are allowable strength values for use in allowable stress design (ASD) following IBC Section 2107. For use under the IRC, an engineered design complying with IRC Section R301.1.3 shall be submitted to the building official for approval.

The allowable tension and shear bond loads noted in this report shall be adjusted for in-service base-material temperatures in accordance with Figure 1 of this report for anchors installed and cured in base materials having an in-service temperature of 70°F (21°C) and above. Anchors installed or cured at temperatures below 50°F (10°C) or above 110°F (43°C) are outside the scope of this report.

Allowable loads for anchors subjected to combined tension and shear forces shall be determined by Eq-1:

$$\left(\frac{P_s}{P_t}\right) + \left(\frac{V_s}{V_t}\right) \leq 1.0 \qquad \text{Eq-1}$$

where:

Ps = Applied tension load, lbf (kN).
Pt = Allowable tension strength, lbf (kN).
Vs = Applied shear load, lbf (kN).
Vt = Allowable shear strength, lbf (kN).

For installations in fully grouted concrete masonry construction, anchors are permitted to resist dead, live, wind, and earthquake load applications. When using the allowable stress design load combinations in 2021 IBC Section 1605.1 (Section 2.4 of ASCE/SEI 7-16), or the basic allowable stress design load combinations in accordance with the 2018, 2015, 2012, or 2009 IBC Section 1605.3.1, no increases are allowed for earthquake or wind loading. For the alternative basic allowable stress design load combinations in 2009 IBC Section 1605.3.2 that include earthquake or wind loads, the allowable tension and shear loads for anchors are permitted to be increased, or the alternative basic load combinations may be reduced, using the factors noted in Table 9 of this report. When using the alternative basic allowable stress

design load combinations in 2021 IBC Section 1605.2 or 2018, 2015, and 2012 IBC Section 1605.3.2 that include earthquake or wind loads, no adjustments are permitted.

3.2.2 Design of Threaded Steel Rods Installed in the Vertical Face of Fully Grouted CMU Walls (Resisting Dead, Live, Wind, and Earthquake Load Applications): Tables 1, 2, and 3 of this report specify allowable tension and shear values for ⅜-, ½-, ⅝-, and ¾-inch-diameter (9.5, 12.7, 15.9, and 19.1 mm) threaded rods installed in the vertical side of the fully grouted CMU masonry wall construction (face shell, web, and bed joint locations are shown in Figure 2 of this report) for anchors designed to resist dead, live, wind, and earthquake load applications. Edge and end distances, spacing requirements, and allowable load reduction factors are noted in Tables 2 and 3 of this report. The allowable load shall be taken as the least result of bond loads in Table 2 or 3 of this report and threaded steel rod strengths in Table 1 of this report.

3.2.3 Design of Deformed Steel Rebars Installed in the Vertical Face of Fully Grouted CMU Walls (Resisting Dead, Live, Wind, and Earthquake Load Applications): Tables 4, 5, and 6 of this report specify allowable tension and shear loads for No. 3, No. 4, No. 5, and No. 6 deformed steel rebars installed in the vertical side of the fully grouted CMU masonry wall construction (face shell, web, and bed joint locations are illustrated in Figure 2 of this report), for anchors designed to resist dead, live, wind, and earthquake load applications. Edge and end distances, spacing requirements, and allowable load reduction factors are noted in Tables 5 or 6 of this report. The allowable load shall be taken as the least result of bond loads in Table 5 or 6 of this report and steel rebar strengths in Table 4 of this report.

3.3 Installation:

3.3.1 General: Anchors shall be installed in compliance with the manufacturer's published installation instructions (MPII) and the provisions of this report. Where conflicts between this report and the published instructions occur, the more restrictive shall prevail. Anchors shall be installed only when the base material attains the minimum specified compressive strength set forth in Section 4.2.5 of this report. Hole diameter, embedment depths, spacings, edge distances, and base materials shall comply with the provisions of this report. Anchor locations shall comply with approved construction documents.

Anchors installed or cured in masonry at base material temperatures below 50°F (10°C) or above 176°F (43°C) are outside the scope of this report. The manufacturer's recommended gel and cure times are shown in Table 7 of this report. After installation into the hole, the anchor shall be undisturbed during the gel time and shall be allowed to fully cure before building components are attached.

3.3.2 Installation in Fully Grouted Concrete Masonry: Anchor systems shall be installed in the face of the fully grouted CMU wall. Anchor holes shall be drilled into the fully grouted concrete masonry to a predetermined depth, using an electro-pneumatic rotary hammer drill, in either a rotation-and-hammering or rotation-only mode, having a carbide-tipped drill bit conforming to ANSI B212.15-1994. Drill bit sizes corresponding to the anchor size are provided in Table 8 of this report. Holes may be drilled in the face of masonry units, or the mortar bed joints, except installation is permitted in head joints of open-end CMU. Anchor holes shall be cleaned and entirely free of dust and debris using oil-free compressed air and a wire brush. During installation, the holes may be dry or damp but free of water.

A clean, static-mixing nozzle shall be attached to the Red Head C6+ adhesive cartridge. Before the injection of the adhesive into the anchor hole, an initial amount of adhesive shall be dispensed through the nozzle until the two adhesive components are uniformly blended and exhibit an even gray color. An initial amount of adhesive shall be discarded. The adhesive shall be injected into the hole, beginning at the hole's bottom or back, until the hole is roughly 60 percent full. Anchor rods or reinforcing bars, which shall be free of oil, scale, and rust, shall be inserted into the hole with a slow twisting motion to the specified embedment depth. As a minimum, the adhesive shall be flush with the concrete masonry surface after insertion of the anchor. The duration of curing after anchor placement shall conform to Table 7 of this report.

For installations of anchors in the vertical side of the fully grouted masonry wall construction (face shell, web, and bed joint), the anchor location shall comply with the critical and minimum edge and end distances and the critical and minimum spacings noted in Tables 2, 3, 5, or 6 of this report, as applicable, and shown in Figure 2 of this report.

Threaded rods and reinforcing bars shall not be bent after installation except as set forth in Section 26.6.3.1 of ACI 318-19 and -14 or Section 7.3.2 of ACI 318-11, and -08, with the additional condition that the rods and bars shall be bent cold, and heating of threaded rods and reinforcing bars to facilitate field bending is not permitted. The torquing of threaded rods is beyond the scope of this report.

3.4 Special Inspection

3.4.1 IBC and IRC: For the IBC and IRC, adhesive anchors shall be installed with special inspection in accordance with Sections 1704 and 1705 of the IBC. The quality assurance program shall comply with TMS 402 and TMS 602, except that continuous inspection is required for all sustained tension loading installations. A statement of special inspections complying with Section 1705.4 of the 2021, 2018, and 2015 IBC or Section 1705.3 of the 2012 IBC or Section 1705 of

the 2009 IBC shall be prepared and submitted to the registered design professional and the building official. An approved special inspector shall furnish the building official and the registered design professional in responsible charge with an inspection report that includes the following:

1. Anchor description, including the adhesive product identification and expiration date, anchor steel type, grade, cleanliness condition, and nominal anchor diameter and length.
2. Masonry unit type and dimensions, grout type, mortar type, and compressive strength.
3. Drilled hole description, including verification of drill bit compliance with ANSI B212.15-1994, hole diameter, location, and depth.
4. Hole cleaning in accordance with the manufacturer's printed installation instructions (MPII).
5. Installation description including verification of anchor installation location (spacing and edge distance), installation temperature, gel time and cure time, and general installation requirements in accordance with the approved plans, the manufacturer's published installation instructions, and this report.

4.0 PRODUCT DESCRIPTION

4.1 Product Information: The ITW CCNA Red Head C6+ Adhesive Anchoring System is comprised of the following components:

- C6+ Adhesive packaged in cartridges
- Adhesive mixing and adhesive dispensing equipment
- Equipment for hole cleaning

The C6+ adhesive is used with either fully threaded steel rods or deformed steel reinforcing bars. Installation information and parameters are included with each adhesive unit package.

4.2 Material Information

4.2.1 ITW CCNA Red Head C6+ Adhesive: The ITW CCNA Red Head C6+ adhesive is an injectable, two-component, epoxy-based adhesive that is mixed in a 2 to 1 ratio of resin to initiator by volume. These two components combine and react when dispensed from a static mixing nozzle attached to the cartridge. The shelf life of the ITW CCNA Red Head C6+ adhesive in unopened cartridges is 24 months from the date of manufacture when stored at temperatures between 41°F and 86°F (5°C and 30°C) in a ventilated and dry area. ITW CCNA Red Head C6+ is available in 15-ounce (281 mL) side-by-side cartridges and 30-ounce (828 mL) side-by-side cartridges.

4.2.2 Dispensing Equipment: ITW CCNA Red Head C6+ adhesive shall be dispensed using ITW CCNA Red Head manual dispensing tools, or pneumatic dispensing tools as listed in Figure 3 of this report.

4.2.3 Equipment for Hole Preparation: Hole cleaning equipment consists of hole-cleaning brushes and air nozzles. The brushes shall be ITW CCNA Red Head wire hole cleaning brushes as listed in Table 8 of this report. Air nozzles shall be equipped with an extension capable of reaching the bottom/back of the drilled hole.

4.2.4 Anchor Materials

4.2.4.1 Threaded Steel Rods: Threaded anchor rods, having diameters from $^3/_8$ inch to $^3/_4$ inch (9.5 mm to 19.1 mm), shall be carbon steel conforming to ASTM A307, or ASTM A193 Grade B7; or stainless steel conforming to ASTM F593, Group 1, Alloy 304, Condition CW1. The steel rods shall be fully threaded, clean, straight, and without any deformations, indentations, or other defects.

4.2.4.2 Deformed Reinforcing Bars (Rebar): Deformed steel rebar, in sizes No. 3 to No. 6, shall conform to ASTM A615 Grade 60 minimum. The embedded zones of reinforcing bars shall be straight, and cleaned of mill scale, rust, mud, oil, and other materials that may reduce the bond with the adhesive.

4.2.5 Concrete Masonry: The masonry compressive strength, f'_m, at 28 days shall be at least 1,500 psi (10.3 MPa). All cells of the masonry wall shall be grouted. The fully grouted grout-filled masonry walls shall be built with the following materials:

4.2.5.1 Concrete Masonry Units (CMU): CMU shall be open or closed-end lightweight, medium-weight, or normal-weight concrete masonry conforming to IBC Section 2103.1 or IRC Section R606.2, and ASTM C90. The minimum allowable nominal size of CMU shall be 8 inches (203 mm) wide by 8 inches (203 mm) high by 16 inches (406 mm) long (i.e., 8×8×16) for threaded rod and rebar installed with ITW CCNA Red Head C6+ adhesive in the vertical side of the masonry wall construction.

4.2.5.2 Grout: Grout shall comply with IBC Section 2103.3 or IRC Section R606.2.12 (2021 and 2018 IRC), R606.11 (2015 IRC), or R609 (2012 and 2009 IRC). As an alternative, the grout shall have a compressive strength equal to or exceeding its specified strength, and at least 2,000 psi (13.8 MPa), determined by tests following ASTM C1019.

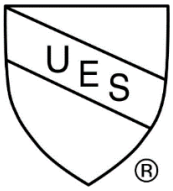
4.2.5.3 Mortar: Mortar (Type M, S, or N) shall comply with IBC Section 2103.2, or IRC Section R606.2.8 (2021 and 2018 IRC), R606.2.7 (2015 IRC), or R607.1 (2012 and 2009 IRC), as applicable. The minimum mortar compressive strength shall be 1,500 psi (10.3 MPa).

5.0 IDENTIFICATION

5.1 The ITW CCNA Red Head C6+ Adhesive Anchoring System is identified by the ITW Commercial Construction North America (CCNA) name and trademark, product name, production date code, and evaluation report number (ER-891).

5.2 The Anchor Materials shall be identified as set forth in the applicable ASTM Specification.

The IAPMO Uniform Evaluation Service Mark of Conformity may also be used as shown below:



IAPMO UES ER-891

6.0 SUBSTANTIATING DATA

6.1 Test reports are from laboratories in compliance with ISO/IEC 17025.

6.2 Data complying with AC58, the ICC-ES Acceptance Criteria for Adhesive Anchors in Masonry Elements, issued March 2018, (editorially revised May 2021), including static tension and shear, and seismic tension and shear tests.

6.3 Quality Documentation.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on the ITW CCNA Red Head C6+ Adhesive Anchoring System to assess conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product certification. Products are manufactured as noted in Section 2.17 of this report under a quality control program with periodic inspection under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org

TABLE 1—ALLOWABLE TENSION AND SHEAR STRENGTHS FOR STEEL THREADED RODS[1,2,3,4]

Threaded Rod Diameter (inches)	Tension (lbf)[3]			Shear (lbf)[4]		
	ASTM A307 F_u = 60 ksi	ASTM A193 Grade B7 F_u = 125 ksi	ASTM F593 SS 304 F_u = 100 ksi	ASTM A307 F_u = 60 ksi	ASTM A193 Grade B7 F_u = 125 ksi	ASTM F593 SS 304 F_u = 100 ksi
⅜	2,185	4,555	3,645	1,125	2,345	1,875
½	3,885	8,100	6,480	2,000	4,170	3,335
⅝	6,075	12,655	10,125	3,130	6,520	5,215
¾	8,750	18,225	12,390	4,505	9,390	6,385

For SI: 1 inch = 25.4 mm, 1 lbf = 4.48 N, 1 ksi = 6.89 MPa.

1 The allowable design strength shall be the lesser of bond loads in Table 3 or Table 4 of this report and steel threaded rod strengths in Table 1 of this report.
2 Allowable tension and shear strengths for threaded rods to resist short-term loadings, such as wind or seismic, shall be calculated in accordance with Section 3.2.1 as applicable.
3 The allowable tension steel strength is based on the following equation: $F_t = 0.33 \times F_u$ x Tensile Stress Area.
4 The allowable shear steel strength is based on the following equation: $F_v = 0.17 \times F_u$ x Tensile Stress Area.

TABLE 2—ALLOWABLE TENSION BOND LOADS FOR THREADED RODS WITH RED HEAD C6+ ADHESIVE INSTALLED INTO FULLY GROUTED CONCRETE MASONRY UNITS[1,2,3,4,5,16,17]

Threaded Rod Diameter (inches)	Minimum Rod Embedment[6] (inches)	Load at s_{cr} and c_{cr} (lbf)	Spacing[7]			Edge Distance[10]		
			Critical, s_{cr} (inches)	Minimum, s_{min}[9] (inches)	Load reduction factor for s_{min}[13,14]	Critical, c_{cr}[11] (inches)	Minimum, c_{min}[12] (inches)	Load reduction factor for c_{min}[13,15]
⅜	3⅜	945	13.5	4	1.00	12	4	0.87
½	4½	1,395	18	4	0.50	20	4	0.68
⅝	5⅝	1,825	22.5	4	0.50	20	4	0.68
¾	6¾	2,085	27	4	0.50	20	4	0.68

For SI: 1 inch = 25.4 mm; 1 lbf = 4.48 N, 1 ksi = 6.89 MPa. **(The footnotes follow Table 3 of this report)**

TABLE 3—ALLOWABLE SHEAR BOND LOADS FOR THREADED RODS WITH RED HEAD C6+ ADHESIVE INSTALLED INTO FULLY GROUTED CONCRETE MASONRY UNITS[1,2,3,4,5,18,19,20]

Threaded Rod Diameter (inches)	Minimum Rod Embedment[6] (inches)	Load at s_{cr} and c_{cr} ⊥ to edge (lb)	Spacing[7]			Edge Distance[10]		
			Critical, s_{cr}[8] (inches)	Minimum, s_{min}[9] (inches)	Load reduction factor for s_{min}[13,18]	Critical, c_{cr}[11] (inches)	Minimum, c_{min}[12] (inches)	Load reduction factor for c_{min}[13,19]
3/8	3 3/8	825	13.5	4	0.50	12	4	0.87
1/2	4 1/2	1560	18	4	0.50	20	4	0.56
5/8	5 5/8	2,680	22.5	4	0.50	20	4	0.30
3/4	6 3/4	3180	27	4	0.50	20	4	0.27

For **SI:** 1 inch = 25.4 mm; 1 lbf = 4.48 N, 1 ksi = 6.89 MPa

(The following footnotes [continued on next page] apply to both Tables 2 and 3.)

1 The allowable design strength shall be the lesser of bond loads in Table 3 or Table 4 of this report and steel threaded rod strengths in Table 1 of this report.
2 The tabulated allowable bond loads are established using a safety factor of 5.0 or greater for installations under the IBC and the IRC.
3 The masonry shall comply with Section 4.2.5 of this report.
4 Anchors shall be permitted to be installed at any location in the vertical sides of the fully grouted masonry wall construction (cell, web, bed joint) as illustrated in Figure 2 of this report.
5 One or two anchors of the same diameter may be placed in a single CMU cell, provided the tabulated spacings and edge distances are observed.
6 Embedment depth shall be determined as the distance from the outside face of the masonry wall to the inserted end of the steel.
7 Anchor spacing (s_{cr} or s_{min}) is the distance measured from center-to-center of two anchors.
8 Critical spacing, s_{cr}, is the least anchor spacing at which the tabulated allowable load of an anchor is achieved, such that anchor performance is not influenced by adjacent anchors.
9 Minimum spacing, s_{min}, is the least spacing where an anchor has an allowable load capacity, which shall be determined by multiplying the allowable loads assigned to anchors installed at the critical spacing distance, s_{cr}, by the corresponding strength reduction factors.
10 Edge distance (c_{cr} or c_{min}) is the distance measured from the anchor center to the edge or end of the CMU masonry wall. Figure 2 of this report illustrates critical and minimum edge and end distances. The tabulated loads apply to anchors located at the ends of fully grouted CMUs where the minimum edge distances are maintained.
11 Critical edge distance, c_{cr}, is the least edge distance at which the tabulated allowable load of an anchor is achieved where a load reduction factor equals 1.0 (no strength reduction).
12 Minimum edge distance, c_{min}, is the least edge distance where an anchor has an allowable load capacity, which shall be determined by multiplying the allowable loads assigned to anchors installed at critical edge distance, c_{cr}, by the tabulated load reduction factors.
13 Reduction factors are cumulative. Multiple reduction factors for more than one spacing or edge or end distance shall be calculated separately and multiplied.
14 Load Strength reduction factors for anchors loaded in tension with spacings between critical and minimum shall be obtained by linear interpolation.

[15] Load reduction factors for anchors loaded in tension with edge distances between critical and minimum shall be obtained by linear interpolation.
[16] The wall thickness shall be at least 1½ times the actual embedment depth. For example, ½-inch-diameter at 4½ inch embedment (4.5x1.5=6.75 inches) requires a minimum nominal 8-inch-thick CMU.
[17] The tabulated allowable bond loads shall be reduced when elevated in-service base material temperatures occur, in accordance with Figure 1 of this report.
[18] Load reduction factors for anchors loaded in shear with spacings between critical and minimum shall be obtained by linear interpolation.
[19] Load reduction factors for anchors loaded in shear with edge distances between critical and minimum shall be obtained by linear interpolation.
[20] Shear loads are permitted to be applied in any direction on the wall.

TABLE 4—ALLOWABLE TENSION AND SHEAR STRENGTHS FOR DEFORMED STEEL REINFORCING BARS[1,2]

Bar Designation	Tension (lbf)[3]	Shear (lbf)[4]
	ASTM A615, Grade 60 (F_u = 90 ksi)	ASTM A615, Grade 60 (Fu = 90 ksi)
No. 3	3,270	1,685
No. 4	5,940	3,060
No. 5	9,205	4,745
No. 6	13,070	6,730

For SI: 1 lbf = 4.48 N, 1 ksi = 6.89 MPa.

[1] The allowable design strength shall be the lesser of bond values given in Table 5 or Table 6 of this report and steel reinforcing bar values given in Table 4 of this report.
[2] Allowable tension and shear strengths for threaded rods to resist short-term loads, such as wind or seismic, shall be calculated in accordance with Section 3.2.1 as applicable.
[3] The allowable tension steel strength is based on the following equation: $F_t = 0.33 \times F_u \times$ Tensile Stress Area
[4] The allowable shear steel strength is based on the following equation: $F_v = 0.17 \times F_u \times$ Tensile Stress Area.

TABLE 5— ALLOWABLE TENSION BOND LOADS FOR STEEL REINFORCING BARS WITH REDHEAD C6+ ADHESIVE INSTALLED INTO FULLY GROUTED CONCRETE MASONRY UNITS [1,2,3,4,5,16,17]

Bar Designation	Minimum Embedment (inches)[6]	Load at s_{cr} and c_{cr} (lb)	Spacing[5]			Edge Distance[10]		
			Critical, s_{cr}[8] (inches)	Minimum, s_{min}[9] (inches)	Load reduction factor for s_{min}[13,14]	Critical, c_{cr} (inches)	Minimum, c_{min}[12] (inches)	Load reduction factor for c_{min}[14,15]
No. 3	3 3/8	785	13.5	4	1.00	12	4	0.87
No. 4	4 1/2	1,355	18	4	0.50	20	4	0.68
No. 5	5 5/8	2,060	22.5	4	0.50	20	4	0.68
No. 6	6 3/4	2,415	27	4	0.50	20	4	0.68

For SI: 1 inch = 25.4 mm; 1 lbf = 4.48 N, 1 ksi = 6.89 MPa (**The footnotes follow Table 6 of this report)**

TABLE 6—ALLOWABLE SHEAR BOND LOADS FOR REINFORCING BARS WITH RED HEAD C6+ ADHESIVE INSTALLED INTO FULLY GROUTED CONCRETE MASONRY UNITS[1,2,3,4,5,18,19,20]

Bar Designation	Minimum Embedment[6] (inches)	Load at s_{cr} and c_{cr} ⊥ to edge (lb)	Spacing[7]			Edge Distance[10]		
			Critical, s_{cr}[8] (inches)	Minimum, s_{min}[9] (inches)	Load reduction factor for s_{min}[13,18]	Critical, c_{cr}[11] (inches)	Minimum, c_{min}[12] (inches)	Load reduction factor for c_{min}[13,19]
No. 3	3 3/8	1,230	13.5	4	0.50	12	4	0.73
No. 4	4 1/2	2,340	18	4	0.50	12	4	0.37
No. 5	5 5/8	3,600	22.5	4	0.50	20	4	0.27
No. 6	6 3/4	3,685	27	4	0.50	20	4	0.22

For SI: 1 inch = 25.4 mm; 1 lbf = 4.48 N, 1 ksi = 6.89 MPa (**The following footnotes [continued on next page] apply to both Tables 5 and 6)**

[1] The allowable design load shall be the lesser of bond values given in Table 5 or Table 6 of this report and steel reinforcing bar strengths given in Table 4 of this report.
[2] The tabulated allowable bond loads are established using a safety factor of 5.0 or greater for installations under the IBC and the IRC.
[3] The masonry shall comply with Section 4.2.5 of this report.
[4] Anchors shall be permitted to be installed at any location in the vertical side of the fully grouted masonry wall construction (cell, web, bed joint), as shown in Figure 2 of this report.
[5] One or two anchors of the same diameter may be placed in a single CMU cell provided the tabulated spacings and edge distances are observed.
[6] Embedment depth shall be determined as the distance from the outside face of the masonry wall. to the inserted end of the steel.
[7] Anchor spacing (s_{cr} or s_{min}) is the distance from center-to-center of two anchors.
[8] Critical spacing, s_{cr}, is the least anchor spacing at which the tabulated allowable load of an anchor is achieved, such that anchor performance is not influenced by adjacent anchors.

[9] Minimum spacing, s_{min}, is the least spacing where an anchor has an allowable load capacity, which shall be determined by multiplying the allowable loads assigned to anchors installed at the critical spacing distance, s_{cr}, by the corresponding load reduction factors.
[10] Edge distance (c_{cr} or c_{min}) is the distance measured from the anchor center to the edge or end of the CMU masonry wall. Figure 2 of this report illustrates critical and minimum edge and end distances. The tabulated loads are applicable for anchors in the ends of fully grouted CMUs, provided minimum edge distances are maintained.
[11] Critical edge distance, c_{cr}, is the least edge distance at which the tabulated allowable load of an anchor is achieved, where a load reduction factor equals 1.0 (no strength reduction).
[12] Minimum edge distance, c_{min}, is the least edge distance where an anchor has an allowable load capacity, which shall be determined by multiplying the allowable loads assigned to anchors installed at critical edge distance, c_{cr}, by the tabulated load reduction factors.
[13] Reduction factors are cumulative. Multiple reduction factors for more than one spacing or edge or end distance shall be calculated separately and multiplied.
[14] Load reduction factors for anchors loaded in tension with spacing between critical and minimum shall be obtained by linear interpolation.
[15] Load reduction factors for anchors loaded in tension with edge distances between critical and minimum shall be obtained by linear interpolation.
[16] The wall thickness shall be at least 1½ times the actual embedment depth. For example, ½-inch-diameter at 4½ inch embedment (4.5x1.5=6.75 inches) requires a minimum nominal 8-inch-thick CMU.
[17] The tabulated allowable bond strengths shall be reduced when elevated in-service base material temperatures occur, in accordance with Figure 1 of this report.
[18] Strength reduction factors for anchors loaded in shear with spacing between critical and minimum shall be obtained by linear interpolation.
[19] Strength reduction factors for anchors loaded in shear with edge distances between critical and minimum shall be obtained by linear interpolation.
[20] Shear loads are permitted to be applied in any direction on the wall.

TABLE 7—GEL AND CURE TIMES FOR RED HEAD C6+ ADHESIVE CORRESPONDING TO TEMPERATURE[1]

Base Material (°F)	Base Material (°C)	Gel Time[2]	Full Cure Time[3]
110°	43°	10 minutes	2 hours
90°	32°	14 minutes	2.75 hours
70°	21°	16 minutes	6.5 hours
50°	13°	38 minutes	24 hours

[1] Masonry base material temperatures shall be within the tabulated range during adhesive installation. Applicable methods for cold weather or hot weather construction may be used for adjusting the base material temperatures to the tabulated limits.

[2] Gel time is the maximum time between completing the adhesive mixing and inserting the anchor into the adhesive for the tabulated adhesive and concrete temperatures.
[3] Cure time is the minimum time between the tabulated gel time and the application of loads to the anchor for the tabulated adhesive and concrete temperatures. Anchors shall not be adjusted or disturbed until the tabulated cure time.

TABLE 8—WIRE BRUSHES AND DRILL BITS FOR RED HEAD C6+ ADHESIVE

Brush Part No.	Threaded Rod Dia. (in)	Rebar Dia. (in)	Drill Bit Dia. (in)	Overall Length (in)	Brush Dia. (in)
WB-038	3/8	No. 3	7/16	4-7/8	.563
WB-012	1/2	Not applicable	9/16	4-7/8	.675
WB-012	Not applicable	No. 4	5/8	4-7/8	.675
WB-058	5/8	No. 5	3/4	4-7/8	0.900
WB-34	3/4	No. 6	7/8	4-7/8	1.125

For SI: 1 inch = 25.4 mm

TABLE 9—2009 IBC ALTERNATIVE ALLOWABLE STRESS DESIGN (ASD) BASIC LOAD COMBINATION ADJUSTMENT FACTORS[1,2,3]

Anchor Type	Adjustment Factors for 2009 IBC Section 1605.3.2 ASD Alternative Basic Load Combinations			
	Reduction Factors to Load Combinations		Increase Factors for ASD Tabulated Loads	
	Tension	Shear	Tension	Shear
Mild steel threaded rods	0.75	0.75	1.33	1.33
High-strength steel threaded rods	0.75	1.00	1.33	1.00
Stainless steel threaded rods	0.75	0.87	1.33	1.14
Steel reinforcing bars	0.75	0.75	1.33	1.33

[1] In accordance with 2009 IBC Section 1605.3.1.1, the provisions of this table do not apply to basic load combinations in 2009 IBC Section 1605.3.1.
[2] The above modification factors are applicable under the 2009 IBC only.
[3] For the alternative basic load combinations in the 2009 IBC Section 1605.3.2 with wind or seismic loads, the load combinations are permitted to be reduced by multiplying by the reduction factors located in the left portion of the table. As an alternative, the tabulated allowable bond or steel loads for anchors in this report may be increased by the increase factors located in the right portion of the table. For example, for mild steel threaded rods in tension or shear, the basic load combinations including wind or seismic may be multiplied by 0.75; or the tabulated allowable bond or steel loads may be multiplied by 1.33.

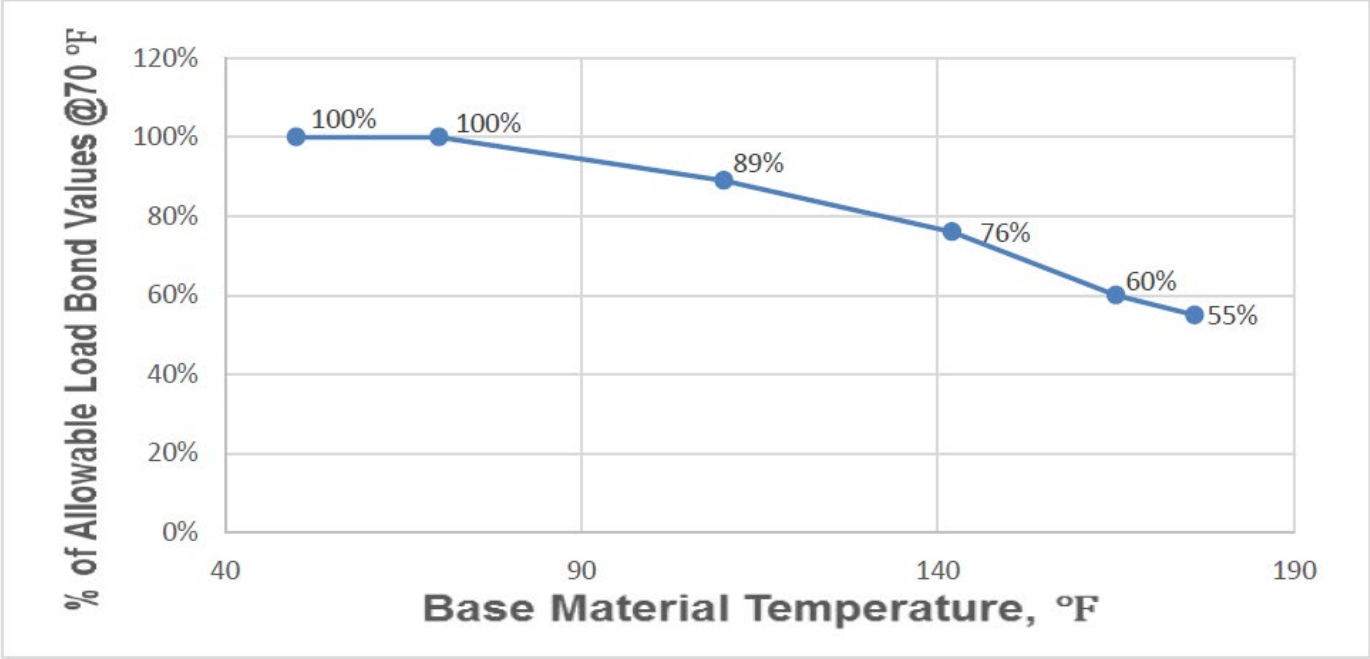


FIGURE 1—ADJUSTMENT FACTORS BASE MATERIAL TEMPERATURE EFFECTS ON ALLOWABLE BOND TENSION AND SHEAR STRENGTHS FOR RED HEAD C6+ ADHESIVE ANCHORS INSTALLED INTO THE FACE OF FULLY GROUTED CONCRETE MASONRY UNITS

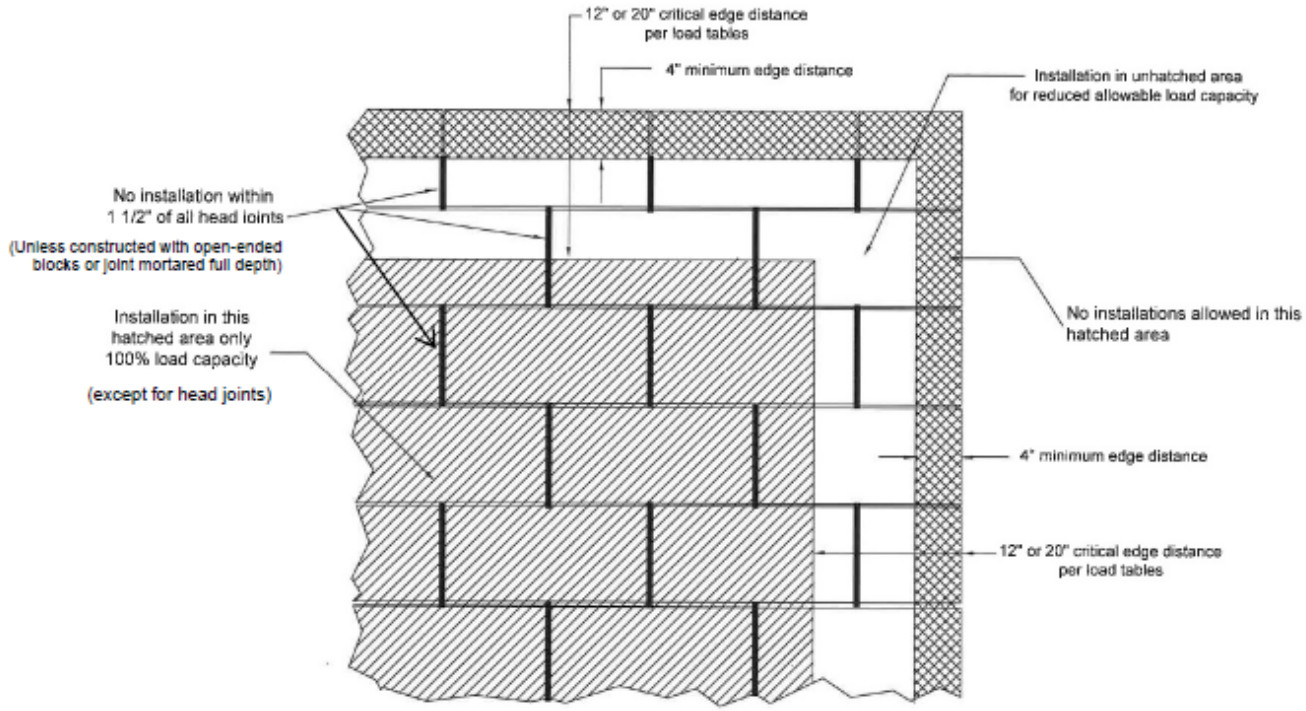


FIGURE 2—PERMITTED LOCATIONS FOR PLACEMENT OF RED HEAD C6+ ADHESIVE ANCHORS INSTALLED INTO THE FACE OF FULLY GROUTED CONCRETE MASONRY UNITS

C6P-30
30 ounce cartridge

C6P-15
15 ounce cartridge

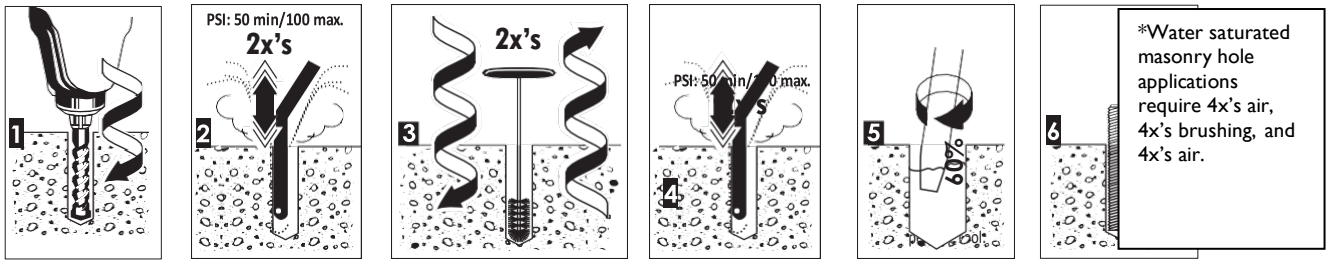
C6+ Dispensing Tools

Wire Brush
(see Table)

FIGURE 3—RED HEAD C6+ ADHESIVE ANCHORING SYSTEM COMPONENTS CONSISTING OF CARTRIDGES, DISPENSING TOOLS AND CLEANING BRUSHES

C6+ Adhesive Anchor Installation Instructions

RED HEAD®



1 Use a rotary hammer drill or pneumatic air drill with a carbide drill bit complying to ANSI B212.15-1994 tolerance requirements. Drill hole to the required embedment depth. See attached table for drill bit specifica- tions and min/maximum embedment depths.

- Installations may be used with maximum 1-1/4" diameter rods/rebar for floor, wall and overhead applications.
- Per construction specification, adhere to minimum spacing, minimum edge distance, and minimum member thickness.

2 For dry holes, oscillate a clean air nozzle in and out of the dry hole two times, for a total of two seconds, starting at the bottom of the hole with contaminant-free compressed air, exhausting hole until visually clean (i.e., no dust, debris, etc.)

- For water-saturated masonry and water-filled hole applications, oscil- late a clean air nozzle in and out of the damp, water-filled or submerged hole four times, for a total of four seconds, starting at the bottom of the hole with contaminant-free compressed air, exhausting hole until visu- ally clean (i.e., no dust, debris, etc.)
- If required, use an extension on the end of the air nozzle to reach the bottom of the hole.

3 Select an appropriately sized Red Head brush for the anchor diameter. Brush must be checked for wear before use. See attached table for brush specifications, including minimum diameter.

- Insert the brush into the hole with a clockwise motion. For every ½" forward advancement, complete one full turn until bottom of hole is reached. For faster and more suitable cleaning, attach the brush to a drill.
- Using a clockwise motion, for every full turn of the brush, pull the brush ½" out of the hole.
- For dry holes, twist/spin the brush two times in/out of the hole.
- For water-saturated masonry and water-filled hole applications, twist/ spin the brush four times in/out of the hole.
- If required, use a wire brush extension (part nos. ESDS-38 or EHAN-38) to reach the bottom of the hole.
- Air clean the dust off the brush to prevent clogging of the brush.

4 For dry holes, oscillate a clean air nozzle in and out of the dry hole two times, for a total of two seconds, starting at the bottom of the hole with contaminant-free compressed air, exhausting hole until visually clean (i.e., no dust, debris, etc.)

- For water-saturated masonry and water-filled hole applications, oscil- late a clean air nozzle in and out of the damp, water-filled or submerged hole four times, for a total of four seconds, starting at the bottom of the hole with contaminant-free compressed air, exhausting hole until visu- ally clean (i.e., no dust, debris, etc.)

5 Review the Material Safety Data Sheet (MSDS) before use.

- Check the "Use By" date on the cartridge and that the cartridge has been stored in temperatures between 50 and 77 degrees F – out of direct sunlight.
- Review the gel time/cure time chart, based on the temperature at time of installation, in order to determine tool, cartridge and nozzle require- ments.
- Assemble the Red Head supplied cartridge and nozzle. Do not modify or remove mixing elements in nozzle.
- For 5/8" and larger diameter anchors installed at embedments greater than 10" (floor, wall, and overhead applications), assemble Red Head E916-6 extension tubing and appropriate sized piston plug on end of nozzle:

  PL-5834 for 5/8"& ¾" diameters PL-7810 for 7/8"& 1" diameters PL-1250 for 1-1/4" diameter

- Place the assembly into a manual dispensing tool or a pneumatic dispel.
- Dispense mixed adhesive outside of hole until uniform color is achieved.
- During installations, masonry must be between 50 and 104 degrees F, or artificially maintained.
- Insert the nozzle to the bottom of the hole and inject the adhesive at an angle, leaving the nozzle tip always slightly below the fill level.
- If nozzle does not reach the bottom of the hole, use Red Head E25-6 ex- tension tubing positioned on the end of nozzle or use the S75EXT (nozzle extension) on the end of the S75 nozzle.
- In a slow circular direction, work the adhesive into the sides of the hole, filling slowly to ensure proper adhesive distribution, until the hole is ap- proximately 60% filled.
- For holes that contain water, keep injecting the adhesive below the wa- ter in order to displace the water upward.

6 Immediately insert the oil, rust and scale free rod/rebar assembly to the required embedment depth, using a counterclockwise motion to ensure proper adhesive distribution.

- The anchor rod/rebar must be marked with the required embedment depth.
- After installing the anchor, the gap between the rod and the masonry must be completely filled with adhesive. The adhesive must fill voids, crevices and uniformly coat the rod and masonry.
- For overhead applications, the anchor must be supported until the adhesive is fully cured.
- After installation, do not disturb the anchor until the full cure time has elapsed.
- Adhesive must be fully cured before applying any load or torque. Do not over torque the anchor as this could adversely affect its performance.

FIGURE 4—RED HEAD C6+ ADHESIVE ANCHORING SYSTEM MPII

FLORIDA SUPPLEMENT

ITW CCNA
155 Harlem Avenue
Glenview, IL 60025
800-848-5611
Adhesive-Anchors@itwccna.com

ITW CCNA RED HEAD C6+ ADHESIVE ANCHORING SYSTEM IN MASONRY

CSI Section: 04 05 19.16 Masonry Anchors

1.0 RECOGNITION

The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry, as evaluated and represented in IAPMO UES Evaluation Report ER-891 and with changes as noted in this supplement, is a satisfactory alternative for use in buildings built under the following codes (and regulations):

- 2023 Florida Building Code, Building, 8th and 7th Edition (FBC–Building)
- 2023 Florida Building Code, Residential, 8th and 7th Edition (FBC–Residential)

2.0 LIMITATIONS (UTILIZATIONS)

Use of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry, recognized in this report supplement, is subject to the following limitations:

2.1 For use under the 2023 FBC–Building or 2023 FBC–Residential, the design and installation of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry shall be in accordance with the 2021 International Building Code and the 2021 International Residential Code as noted in IAPMO UES ER-891.

2.2 Construction documents, including calculations showing compliance with FBC–Building Sections 107 and 1603, TMS 402 Section 1.2, and this report, shall be submitted to the building official. The construction documents shall be prepared by a registered design professional where required by Chapter 471, Florida Statutes, or Chapter 481, Florida Statutes.

2.3 Load combinations shall be in accordance with Section 1605.1 or 1605.2 of the 2023 FBC–Building.

2.4 Design wind loads shall be in accordance with Section 1609.1.1 of the FBC–Building or Section R301.2.1.1 of the FBC–Residential, as applicable, and Section 1620 of the FBC–Building where used in High-velocity Hurricane Zones (HVHZ).

2.5 Use of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry in High-velocity Hurricane Zones (HVHZ), as set forth in Section 2321.5.2 of the FBC–Building and Section R4409 of the FBC–Residential, to resist wind uplift is permitted. The anchors shall be designed to resist the uplift forces as required in Section 1620 (HVHZ) of the FBC–Building or 700 pounds (3114 N), whichever is greater, per FBC–Building Section 2321.7.

2.6 Use of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry in High-velocity Hurricane Zones (HVHZ), as set forth in Section 2122.7 of the FBC–Building and Section R4407 of the FBC–Residential, to resist wind forces is permitted. The anchors shall be designed to resist the horizontal forces as required in Section 1620 (HVHZ) of the FBC–Building or 200 pounds per lineal foot (2919 N/m) of wall, whichever is greater, per FBC–Building Section 2122.7.3.

2.7 Use of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry with stainless steel or galvanized carbon steel threaded rod complies with the High-Velocity Hurricane Zone (HVHZ) provisions set forth in Sections 2324.2 of the FBC–Building.

2.8 Use of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry with carbon steel threaded rods or reinforcing bars in applications exposed to the weather within High-velocity Hurricane Zones (HVHZ) set forth in the FBC–Building and the FBC–Residential is beyond the scope of this supplemental report.

2.9 For products falling under Section (5)(d) of Florida Rule 61G20-3.008, verification that the report holder's quality assurance program is audited by a quality assurance entity approved by the Florida Building Commission (or the building official when the report holder does not possess an approval by the Commission) is required to provide oversight and determine that the products are being manufactured as described in this evaluation report to establish continual product performance.

2.10 This supplement expires concurrently with IAPMO UES ER-891.

CALIFORNIA SUPPLEMENT

ITW CCNA
155 Harlem Avenue
Glenview, IL 60025
800-848-5611
Adhesive-Anchors@itwccna.com

ITW CCNA RED HEAD C6+ ADHESIVE ANCHORING SYSTEM IN MASONRY

CSI Section: 04 05 19.16 Masonry Anchors

1.0 RECOGNITION

The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry, as evaluated and represented in IAPMO UES Evaluation Report ER-891, and with changes as noted in this supplement, is a satisfactory alternative for use in buildings built under the following codes (and regulations):

- 2022 California Building Code (CBC)
- 2022 California Residential Code (CRC)

2.0 UTILIZATION

Use of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry, recognized in this report supplement, is subject to the following limitations:

2.1 The design, installation, conditions of use, and identification of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry shall be in accordance with the 2021 International Building Code and the 2021 International Residential Code as noted in ER-891.

2.2 The design, installation, and inspection of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry shall be in accordance with CBC Chapters 16, 16A, 17, 17A, 21, and 21A as applicable, due to local amendments to these chapters.

2.3 For installations regulated by the DSA or HCAi (formerly OSHPD), the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry has been qualified for seismic applications as specified in CBC Section 1617A1.1.19, subject to the requirements of this supplement and ER-890.

2.4 For seismic design installations regulated by the HCAi (formerly OSHPD), anchor sizes shall comply with CBC Section 2106.1.1.4.

2.5 For installations regulated by the DSA, anchor sizes shall comply with CBC Section 2115.9.1.3.

2.6 For seismic design installations regulated by the DSA and HCAi (formerly OSHPD), anchor sizes shall comply with CBC Section 2106A.1.4.

2.7 This supplement expires concurrently with IAPMO UES ER-891.

For additional information about this evaluation report, please visit www.uniform-es.org or email us at info@uniform-es.org.

CITY OF LOS ANGELES SUPPLEMENT

ITW CCNA
155 Harlem Avenue
Glenview, IL 60025
800-848-5611
Adhesive-Anchors@itwccna.com

ITW CCNA RED HEAD C6+ ADHESIVE ANCHORING SYSTEM IN MASONRY

CSI Section: 04 05 19.16 Masonry Anchors

1.0 RECOGNITION

The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry, as evaluated and represented in IAPMO UES Evaluation Report IAPMO UES ER-891 and with changes as noted in this supplement, is a satisfactory alternative for use in buildings built under the following codes (and regulations):

- 2023 City of Los Angeles Building Code (LABC)
- 2023 City of Los Angeles Residential Code (LARC)

2.0 UTILIZATION

Use of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry, recognized in this report supplement, is subject to the following limitations:

2.1 The design, installation, conditions of use, and identification of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry shall be in accordance with the 2022 California Building Code and the 2022 California Residential Code as noted in the California Supplement.

2.2 Prior to installation, calculations and details demonstrating compliance with this report supplement and the Los Angeles Building Code or Los Angeles Residential Code shall be submitted to the structural plan check section for review and approval. The calculations and details shall be prepared, stamped, and signed by a California registered design professional.

2.3 The design, installation, and inspection of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry shall be in accordance with LABC Chapters 16 and 17, as applicable, due to local amendments to these chapters or LABC Section 2114, as applicable.

2.4 The design information listed in the report and tables of ER-890 is valid for the anchorage to masonry only. Connected members also shall be analyzed for structural capacities in accordance with the applicable requirements in the LABC and LARC.

2.5 The capacities of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry used in wall anchorage assemblies to flexible diaphragms shall comply with the LADBS Information Bulletin P/BC 2020-071, Wall Anchorage Assemblies to Flexible Diaphragms.

2.6 Periodic special inspection shall be provided by the Registered Deputy Inspector in accordance with Section 1705 of the LABC during installations of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry.

2.7 Under the LARC, a design in accordance with Section R301.1.3 shall be submitted.

2.8 The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry is not approved for unreinforced masonry walls.

2.9 This supplement expires concurrently with IAPMO UES ER-891.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org.

ABU DHABI SUPPLEMENT

ITW CCNA
155 Harlem Avenue
Glenview, IL 60025
800-848-5611
Adhesive-Anchors@itwccna.com

ITW CCNA RED HEAD C6+ ADHESIVE ANCHORING SYSTEM IN MASONRY

CSI Section:
04 05 19.16 Masonry Anchors

1.0 RECOGNITION

The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry, as evaluated and represented in IAPMO UES Evaluation Report ER-891 and with changes as noted in this supplement, is a satisfactory alternative for use in buildings built under the following codes (and regulations):

- 2013 Abu Dhabi International Building Code (ADIBC)

2.0 LIMITATIONS

Use of the ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry, recognized in this report, is subject to the following limitations:

2.1 The ITW CCNA Red Head C6+ Adhesive Anchoring System in Masonry described in IAPMO UES ER-891, complies with Chapter 21 of the 2013 ADIBC, given the design and installation are in accordance with the 2009 International Building Code® (IBC).

2.2 Special inspection of the Adhesive Anchoring System shall be provided at the job site as required by Sections 1704.4 and 1709.1 of the 2013 ADIBC and Section 3.4 of IAPMO UES ER-891.

2.3 This supplement expires concurrently with IAPMO UES ER-891.