DEWALT AC200 Acrylic Injection Adhesive Anchoring System Instructions

Contents

DEWALT AC200 Acrylic Injection Adhesive Anchoring System

Product Information

- **Specifications**
  - **Manufacturer:** DEWALT
  - **Model:** AC200+
  - **Product Type:** Adhesive Anchoring System
  - **Steel Element:** Standard rebars (bare or galvanized) and epoxy-coated rebars
  - **Drilling Method:** Hammer drilling
  - **Hole Cleaning Method:** Per published instructions
  - **Bond Strength Reduction Factor:** N/A (baseline values) for standard rebars, 0.90 (10% reduction) for epoxy-coated rebars

Product Usage Instructions

- **Step 1:** Preparing the Surface
  - Ensure that the concrete surface is clean, dry, and free from any contaminants. Remove any loose debris or dust from the drilling area.
- **Step 2:** Drilling the Holes
  - Use a hammer drill equipped with a standard carbide drill bit to drill the holes in the concrete.
  - Follow the published instructions for the AC200+ adhesive anchor system.
  - If applicable, you may also use hollow drill bits from the DEWALT DustX+ System.
  - Ensure that the drill bits meet the requirements of ANSI B212.15 for hole drilling.
- **Step 3:** Hole Cleaning
  - After drilling the holes, clean them thoroughly according to the published instructions for the AC200+ adhesive anchor system.

    - This step is crucial to ensure proper bonding between the adhesive and the concrete surface.
    - Use the recommended hole-cleaning method specified in the instructions.
- **Step 4:** Inserting the Adhesive Anchor
    - Take the AC200+ adhesive anchor and insert it into the prepared hole.
    - Make sure to follow all the published installation instructions specific to your application and the conditions of the connection.
    - Proper installation is essential for achieving the published design strengths.
- **Step 5:** Allow for Curing
    - Allow sufficient time for the adhesive anchor to cure.
    - Refer to the published literature for the specific adhesive anchor system for the recommended curing time.
    - Avoid any loading or stress on the anchor during this curing period.
- **Step 6:** Testing and Verification
    - Once the adhesive anchor has cured, conduct the necessary tests and verifications to ensure that it meets the required bond strength and performance standards.
    - Follow the guidelines provided by ACI 318, Chapter 17 (-19 and -14), and ACI 318-11 Appendix D, as well as any other relevant design considerations for your specific application.
- **FAQ (Frequently Asked Questions)**
    - **Q:** Can I use epoxy-coated rebars with the AC200+ adhesive anchor?
    - **A:** Yes, you can use epoxy-coated rebars with the AC200+ adhesive anchor. However, please note that there is a bond strength reduction factor of 0.90 (10% reduction) for epoxy-coated rebars. Consider this factor along with other relevant design considerations for your specific application.
    - **Q:** Can I use hollow drill bits from the DEWALT DustX+ System?
    - **A:** Yes, you may use hollow drill bits from the DEWALT DustX+ system if applicable. These drill bits should meet the requirements of ANSI B212.15 for hole drilling, as specified by ICC-ES ESR-4027.
    - **Q:** Where can I find additional design and installation information for the AC200+ adhesive anchor system?
    - **A:** You can find additional design and installation information for the AC200+ adhesive anchor system at anchors.DEWALT.com. Please refer to the published literature specific to your application for comprehensive guidelines.
    - **Q:** How can I contact DEWALT for technical support or further inquiries?
    - **A:** For technical support or further inquiries, you can reach DEWALT at **anchors@DEWALT.com**. They will be able to assist you with any product-related questions or concerns.

System and Installations

AC200+™ Adhesive Anchoring System and Installations with Epoxy Coated Reinforcing Bars

- ACI 318, Chapter 17 (-19 and -14) and ACI 318-11 Appendix D (and by reference to the 2021, 2018, 2015 IBC and 2012 IBC, respectively) require that adhesive anchors for concrete be tested and qualified with standard steel threaded rods and/or reinforcing bars for each anchor diameter in concrete.
- This is to determine how the anchor size and steel element type influence the bond strength of installed adhesive anchors.
- DEWALT publishes bond strengths for AC200+ adhesive anchors that are based on standard threaded rods

and reinforcing bars.

- Fortunately, DEWALT has also conducted supplemental laboratory testing per recognized standards on AC200+ adhesive anchors installed with epoxy-coated rebar in concrete.
- The table below shows the results of testing the adhesive anchor system with typical standard reinforcing bars and with epoxy-coated reinforcing bars.
- The corresponding reduction factor derived from this comparative testing is provided below.
- This reduction factor must be applied to the bond strength when calculating the bond strength capacity for the given adhesive anchor used with epoxy-coated reinforcing bars and relevant conditions.

Adhesive Anchor System	**Steel Element**	**Drilling Method**	**Hole Cleaning Method**	**Bond Strength Reduction Factor**
DEWALT AC200+	Standard rebars (bare or galvanized)	Hammer drilling	Per published instructions	N/A (baseline values)
	Epoxy coated rebars			0.90 (10% reduction)

Not Applicable

N/A = Not applicable.

1. The results shown are based on tension tests conducted per ACI 355.4/ASTM E488 in dry uncracked normal-weight concrete.
2. Holes were drilled with a hammer drill and standard carbide drill bit and cleaned following published instructions for the AC200+ adhesive anchor system. Hollow drill bits (DEWALT DustX+ System) may be used, as applicable.
3. Standard carbide drill bits and hollow drill bits must meet the requirements of ANSI B212.15; ANSI compliance for hole drilling is required by ICC-ES ESR-4027.
4. See published literature for the specific adhesive anchor system for additional design and installation information which is available at anchors.DEWALT.com.
5. The reduction factor for epoxy-coated rebars is supplemental to all other relevant design considerations for the specific application, as applicable.
6. AC200+ adhesive anchors will achieve published design strengths for relevant loading conditions when the product is properly installed into holes drilled in the concrete.
7. The adhesive anchors must be installed following all other published installation instructions specific to the application and conditions of the connection.
8. **anchors@DEWALT.com**. Technical Bulletin

CONTACT

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- October 30, 2023.

Documents / Resources

	DEWALT AC200 Acrylic Injection Adhesive Anchoring System [pdf] Instructions AC200 Acrylic Injection Adhesive Anchoring System, AC200, Acrylic Injection Adhesive Anchoring System, Adhesive Anchoring System, Anchoring System

References

- Anchoring and Fastening Systems from DEWALT Anchors & Fasteners
- Anchoring and Fastening Systems from DEWALT Anchors & Fasteners
- User Manual