



Issue Date: **September 2025**

Valid Until: **September 2026**

NEU Identification No. **NEU-0002**

An **ACI** Center of Excellence for Carbon Neutral Concrete

VERIFICATION STATEMENT

Prepared for the use of **FORTA LLC**

1.0 SUMMARY

Verified by: NEU: An ACI Center of Excellence for Carbon Neutral Concrete
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Type of Assessment: Verification Statement

Verified for: **FORTA LLC**
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2.0 INTRODUCTION

The verification statement presented herein is prepared by NEU – An ACI Center of Excellence for Carbon Neutral Concrete for **FORTA LLC** for the claim given in Section 3.0 of this statement¹. The responsibility of NEU for this statement was limited to independent evaluation of the evidence submitted and providing an independent opinion on whether the claim is verified. The responsibility of **FORTA LLC** was preparing and submitting any evidence supporting their claim, and making sure that the evidence submitted is free of errors and fraud. **FORTA LLC** is fully responsible for the reliability and accuracy of the evidence submitted. Providing a statement with opinion does not warrant certification, endorsement, recommendation, or consultation through NEU Validation/Verification Program. Forta-Ferro® fibrous reinforcement and Helix® Micro Rebar reinforcements (Helix® 5-25 BAZ, Helix® 5-25 Z and Helix® 5-25), as given in Section 3 of this statement, are recognized in Building Code compliance reports ICC-ES ESR-2522 and ESR-3949, respectively.

3.0 SCOPE OF ENVIRONMENTAL CLAIM

The scope of the environmental claim for this verification is the following:

The Forta-Helix™ EcoMetrics™ v1.0 Program calculates and compares the cradle-to-gate global warming potential (lifecycle stages A1–A3) of slab-on-grade concrete members with Forta-Ferro® fibrous reinforcement and Helix® Micro Rebar reinforcements vs. traditional steel reinforcements using the following GWP values:

Material Type		Average GWP (lifecycle stages A1-A3) (kg-CO ₂ eq.)
Fabricated steel reinforcement bar in accordance with CSA G30.18, or ASTM A615, or ASTM A706 ^a (per metric ton)		854
Welded Wire Fabric (WWF) ^b (per metric ton)		1,747
Plain concrete ^c per cubic yard	3000 to 4000 psi compressive strength with zero fly ash or slag content	293
	3000 to 4000 psi compressive strength with max. 50 percent fly ash/slag content	182
	4000 to 5000 psi compressive strength with zero fly ash or slag content	358
	4000 to 5000 psi compressive strength with max. 50 percent fly ash/slag content	220
Helix [®] 5-25 BAZ and 5-25 Z ^d (per metric ton)		1,370
Helix [®] 5-25 Micro Rebar ^e (per metric ton)		3,060
Forta-Ferro ^{®f} (per metric ton)		2,940

4.0 VERIFICATION PROCEDURE

The verification opinion issued in this NEU statement is based on the evidence listed below, using the NEU-P1 Assessment Scheme, dated September 2024, Rev 1.

- An industry-wide average Environmental Product Declaration (EPD) for Steel Reinforcement Bar according to ISO 14025 and ISO 21930:2017, prepared for Concrete Reinforcing Steel Institute (CRSI). The issue date is September 2022. Valid Until: September 2027. Declaration number: EPD 362.
- Industry-wide average GWP (global warming potential) values obtained from various Environmental Product Declarations (EPDs) for WWF products, issue and expiration dates between 2024 and 2029. List can be provided upon request.
- Industry-wide average Environmental Product Declaration (EPD) for NRMCA member ready-mix concrete, which covers 72 ready mixed concrete products on a cubic meter (cubic yard) basis. Issued January 2022, valid until November 2024. EPD Number: EPD10294.
- Product-specific Environmental Product Declaration (EPD) for Helix[®] 5-25 BAZ and Helix[®] 5-25 Z, EPD number: EPD-637, date of issue: February 2024, valid until February 2029.
- Product-specific Environmental Product Declaration (EPD) for Helix[®] 5-25 Micro Rebar[®], EPD number: EPD-287, date of issue: March 2022, valid until March 2027.
- Product-specific Environmental Product Declaration (EPD) for Forta-Ferro[®], EPD number: EPD 345, date of issue: July 2022, valid until July 2027.
- Example calculations using Forta-Helix[™] EcoMetrics[™] v1.0 Program for 5" Slab on Grade dated June 11, 2025, 10" Slab to 8" Slab dated June 11, 2025, 7" Slab on Grade dated June 11, 2025, and 150mm Slab on Grade dated June 11, 2025.

5.0 VERIFICATION OPINION

Verification type: Historical

Verification level: Verified at the **limited** level of assurance.²

Verification time period: Verification statement assessment for the claim covers the evidence periods given in Section 4 of this statement.

Verification boundaries: The boundaries of this verification statement include lifecycle stages A1 to A3 (cradle-to-gate) for the Forta-Ferro® fibrous reinforcement and Helix® Micro Rebar reinforcements (Helix® 5-25 BAZ, Helix® 5-25 Z and Helix® 5-25) that are recognized in and produced according to Building Code compliance reports ICC-ES ESR-2522 and ESR-3949 respectively.

Verification opinion: Based on the evidence submitted and the verification procedures applied, in its opinion dated **September 2025**, NEU – An ACI Center of Excellence for Carbon Neutral Concrete concluded with limited assurance that the information in the claim were fairly stated, and there were no issues or misstatements observed during assessment of the data submitted.

6.0 MISCELLANEOUS

¹ NEU – An ACI Center of Excellence for Carbon Neutral Concrete is providing this third-party verification statement in accordance with the NEU Procedures. As an independent third-party verifier, NEU maintains a Quality Management System which addresses competence, impartiality, and objectivity for all verification activities; and the NEU verification team that conducted this verification activity has demonstrated and documented competency, independence, and impartiality. NEU continues to monitor the impartiality throughout the engagement in accordance with the NEU Quality Management System documentation. In this verification activity, NEU applied the general requirements of ISO/IEC 17029-19. This statement is issued to the company given in Section 1.0 of this statement, as posted on NEU web site.

² This verification statement by NEU provides **limited** level of assurance. NEU's verification activity for this project consisted of reviewing the technical documents provided by the applicant. NEU did not perform any onsite visits or independent evidence gathering activities.