



GALVABAR®

1. Product Name

GalvaBar™

2. Manufacturer

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3. Product Description

GalvaBar is a Continuous Galvanized Rebar (CGR) with a pure zinc coating for construction projects featuring exceptional formability that complies with ASTM A1094/A1094M. Stock length bundles can be staged prior to being released by fabrication, creating a consistent flow of product, since GalvaBar is processed prior to fabrication. ASTM A1094 improves lead time project delivery methods with a seamless supply of corrosion resistant rebar with increased quality control and customer satisfaction. GalvaBar is procured as a process to client rebar and as a product.

Combined with the metallurgically bonded coating and distinctive cathodic protection principal, Continuous Galvanized Rebar (CGR) reduces corrosion rates and extends corrosion performance. ASTM A1094 bars provide superior corrosion performance compared to conventional reinforcement. GalvaBar has exceptional abrasion resistance that can be fabricated and shipped without special equipment.



GalvaBar can be used but not limited to conditions for corrosion resistant reinforced concrete construction applications in the following forms:

- | | |
|-----------------------------------|--------------------------|
| • Architectural Building Features | • Energy Structures |
| • Balconies | • Foundations |
| • Bridge Decks | • Masonry Construction |
| • Cast-In-Place Concrete | • Mission Critical |
| • Critical Infrastructure | • Parking Garages |
| • Coastal Structures | • Precast Concrete |
| • Corrosive Environments | • Piers and Docks |
| • Dowels and Tie Bars | • Resilient Construction |
| • Elevated Podium Slabs | • Shotcrete Structures |
| | • Transportation Sectors |
| | • Waste/ Water Treatment |

Composition and Materials

GalvaBar consists of a minimum 50 micron pure zinc coating (2 mil); metallurgically bonded to steel rebar.

See our video, "[CMC GalvaBar - Process Overview](#)", on YouTube.

Features and Benefits

Design

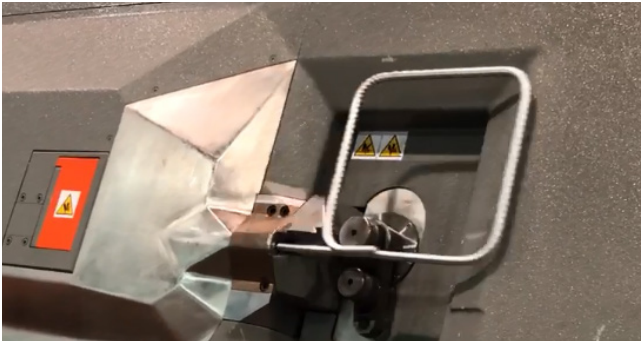
- Designate the ASTM A1094/A1094M Standard Specification for Continuous Hot-Dip Galvanized Steel Bars for Concrete Reinforcement
- Specify GalvaBar as a replacement for ASTM A767 Standard Specification for Zinc-coated (Galvanized) Steel Bars for Concrete Reinforcement
- Engineered like uncoated "black" rebar for bend diameters and splice/lap lengths (A615, A706, A996, A1035)

Performance

- Formability – can be fabricated after galvanizing without cracking, peeling or flaking
- Fabrication – by any rebar fabricator without specialized equipment
- Durability – bond strength and slip resistance in concrete is superior to uncoated "black" bar
- Efficiency – splice/lap same as uncoated rebar
- Longevity – Proven protection of zinc dating hundreds of years

Processing

- Automated factory-controlled procedures to optimize



- quality control of standard mill lengths up to 60+ feet
- Consistent flow of inventoried product allowing for field changes to be addressed
- Transport seamlessly through current supply chains without double handling or additional logistics
- Logistical improvements handling and staging in stock lengths prior to being released by fabrication
- Storage outside in weather without degradation

Cost

- Significantly less expensive than other corrosion resistant reinforcement technologies including non-ferrous, high strength, stainless steel and GFRP/CFRP rebar.
- Competitive with epoxy coated rebar (ECR)
- Lowest total of ownership over the life of a structure

Types, Dimensions and Sizes

Sizes

- #3 to #11 available

Finish

- Passivation-quench treatment available per ASTM A-1094

Product Limitations

The GalvaBar process currently includes rebar sizes #3 thru #11.

Other Applicable CSI MasterFormat Categories

- **03 21 13** Galvanized Reinforcement Steel Bars
- **03 33 13** Heavyweight Architectural Concrete
- **03 33 16** Lightweight Architectural Concrete
- **03 41 16** Precast Concrete Slabs
- **03 41 23** Precast Concrete Stairs
- **03 45 13** Faced Architectural Precast Concrete
- **04 05 19** Masonry Anchorage and Reinforcing

- **04 72 00** Cast Stone

4. Technical Data

Applicable Standards

American Association of State and Highway Transportation Officials (AASHTO):

- **M 111** Standard Specification for Zinc (Hot-Dipped Galvanized) and coatings on iron and steel products

ASTM International:

- **ASTM A123/123M** Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
- **ASTM A90/A90M** Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
- **ASTM A153/153M** Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
- **ASTM A615/A615M** Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
- **ASTM A641** Specification for Zinc-Coated (Galvanized) Carbon Steel Wire
- **ASTM A706/A706M** Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement
- **ASTM A767/A767M** Standard Specification for Zinc-coated (Galvanized) Steel Bars for Concrete Reinforcement
- **ASTM A780/A780M** Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings
- **ASTM A996/A996M** Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement
- **ASTM A1035/A1035M** Standard Specification for Deformed and Plain Low-Carbon, Chromium, Steel Bars for Concrete Reinforcement
- **ASTM A1094/A1094M** Standard Specification for Continuous Hot-Dip Galvanized Steel Bars for Concrete Reinforcement
- **ASTM B6** Specification for Zinc



- **ASTM B487** Test Method for Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of Cross Section
- **ASTM B852** Specification for Continuous Galvanizing Grade (CGG) Zinc Alloys for Hot-Dip Galvanizing of Sheet Steel
- **ASTM E376** Practice for Measuring Coating Thickness by Magnetic-Field or Eddy-Current (Electromagnetic) Testing Methods

Concrete Reinforcing Steel Institute (CRSI):

- Manual of Standard Practice
- Placing Reinforcing Bars

International Standards of Organization (ISO):

- **ISO 1461** Hot-dip galvanized coatings on fabricated iron and steel products
- **ISO 14657** Zinc-coated steel for the reinforcement of concrete
- **AS/NZS 4680** (Origin – Australia/New Zealand) Hot-dip galvanizing (zinc) coatings on fabricated ferrous articles

US Federal Specifications:

- **DOD-P-21035** Paint, High Zinc Dust Content, Galvanizing Repair
- **MIL-P-26915** Primer Coating, Zinc Dust Pigmented

Environmental Considerations

GalvaBar is a sustainable material created through an environmentally responsible process free of volatile organic compounds (VOCs) and hazardous air pollutants.

The 100 percent recyclability of galvanized steel is an exemplary measure of environmental stewardship.

Contact manufacturer for CRSI information.

5. Installation

Installations require no special handling equipment for protection from the elements at the job site.

Do not bend or straighten bars in a manner that may injure the material. Splicing to be performed per manufacturer's instructions and according to project drawings.

Follow manufacturer's instructions, project drawings and per ASTM Practice A780/A780M.

Product installation guidelines and additional resources available at:

www.cmc.com/galvabar

6. Availability and Cost

Please contact manufacturer for availability and pricing.

7. Maintenance

This product requires no maintenance.

8. Technical Services

Contact Galvabar for technical support. GalvaBar facilities will coordinate with steel mills and fabrication detailers to be sure all questions are answered and code requirements are met. Services include design professional consultation, continued education courses, and project-site assistance.

9. Filing Systems

- SpecLink
- Additional product information is available upon request.