
STEEL REINFORCEMENT

GENERAL

This IM covers steel reinforcement. The requirements for steel reinforcement can be found in standard specification 4151. Refer to IM 451.03B for epoxy coated steel reinforcement. Refer to IM 451.02 for galvanized steel reinforcement. Refer to IM 452 for stainless steel reinforcement. Approved suppliers and manufacturers can be found in the Materials Approved Products Listing Enterprise (MAPLE).

MANUFACTURING MILL APPROVAL

Prior to furnishing reinforcing steel or wire mesh reinforcement on a certification basis, the following documents shall be submitted:

1. A request shall be submitted to Central Construction and Materials Office in Ames, Iowa detailing the location of the manufacturing plant and any distribution center(s).
2. Quality control plan/procedures the company has established to ensure material quality and identity through the manufacturing process as well as quality control testing. Submit NTPEP approval for review and acceptance. NTPEP approval is a requirement for steel mill reinforcing mills but not for wire mesh reinforcement. IM 451 Appendix G provides guidelines for the Fabricator/Supplier Quality Control Procedures.
3. A typical example of certification documents the mill will furnish.
4. A picture showing the permanent mill-imprinted markings/symbols of the manufacturing mill (grade Mark, Bar Size, etc...)
5. Copy of an identification list, invoice or bill of materials. The documents shall show the project number, the size, length, grade, heat number, number and weight of pieces in the shipment. The document must have a certification statement as described in the Certification Procedures.

Upon satisfactory review of this application, the manufacturing mill will be placed on the approved list in Appendix D.

SUPPLIER APPROVAL

Prior to furnishing reinforcing steel or wire mesh reinforcement on a certification basis, the supplier shall request approval by submitting the following items:

1. A request shall be submitted to the Central Construction and Materials Office in Ames, Iowa.
2. Sources of steel that would be handled by the company and supplied and sources must be approved by Iowa Department of Transportation.
3. Quality control procedures the company has established to ensure material identity (as to heat numbers and inventory) from the time material arrives from a mill or a source, through fabrication process, and shipment. Refer to IM 451 Appendix G.

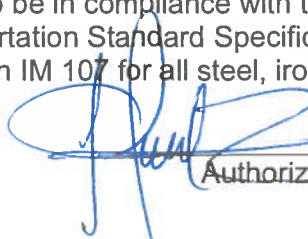
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4. Copy of an identification list, invoice or bill of materials. The documents shall show the project number, the size, length, grade, heat number, weight of pieces in the shipment. For wire mesh reinforcement, also include the spacing and size of wire, length and width of sheets or rolls and quantity in the shipment. The document must have a certification statement as described in the Certification Procedures.

Upon satisfactory review of this application the company will be placed on the approved list in Appendix B, C or E.

CERTIFICATION PROCEDURES

- The steel mill and/or supplier shall furnish an identification list, invoice or bill of lading for each shipment to each project. It shall show the project number, size, length, grade, heat number, source and weight of pieces in the shipment and contain a certification statement state that the attached mill test reports represent the itemized material. For wire mesh reinforcement, also include the spacing and size of wire, length and width of sheets or rolls and quantity in the shipment.
- The signed mill test reports/certification shall include the physical, chemical analysis, ASTM designation, grade and type for each heat.
- The signed mill test reports/certification shall also include a statement indicating the steel meets the requirements of IM 107, Group 1, Buy America.
- The certification of compliance shall be signed by a designated or responsible company representative and shall be stated as follows:

The materials itemized in this shipment are from the Iowa Department of Transportation approved sources and are certified to be in compliance with the applicable ASTM Standards and the Iowa Department of Transportation Standard Specifications, IMs and meet the Buy America requirements as described in IM 107 for all steel, iron products and coatings.


07/26/18
Authorized Signature & Date

ACCEPTANCE

Acceptance of steel reinforcement and wire mesh shall be on the basis of certification from an approved steel manufacturer and/or supplier and acceptable verification test results when required.

Reinforcing steel, which is shipped to a contractor for use on several projects, shall be sampled at the rate established under verification sampling and testing.

Examples of this would be shipments to prestressed/precast and concrete pipe plants or lighting and signing contractors where the steel may be used on several projects.

- Approved suppliers are listed in Appendix B.
- Approved suppliers of wire mesh reinforcement are listed in Appendix C.
- Approved manufacturers of reinforcing steel (plain and deformed bars) are listed in Appendix D.
- Approved suppliers of reinforcing steel mechanical splicing products are listed in Appendix E.

The amount of verification sampling and testing will generally depend upon the amount of steel

required for the project.

1. Project Quantity Less Than 45 tons
Acceptance will be based on certification of each heat with no verification samples required.
2. Project Quantity 45 tons and over
Sample one 6 foot piece of the most common bar furnished to the project.