

## **Acceptance of Reinforcing Steel**

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### BASIS

Material quality of products coded 5005, the quality of involved materials and processes are all monitored by the Materials Division per their quality monitoring procedure(s). Acceptance of products coded 5005 is based on:

- Field inspecting for Reinforcing Steel Fabricator fixed shipping tags or labels
- Field inspecting deformed bars for mill markings
- When epoxy coated, field inspecting for proper handling, coating damage and damage repair
- Documenting field inspection review results to project records

### PROCEDURE

1. Inspect delivered material by inspecting fixed shipping tags or labels. Verify the Fabricator (P/S) shown on the shipping tags is approved, by checking the Approved Products List for Reinforcing Steel.

Verify that the Material Code:

- a) qual021 – Fabricated Reinf. Steel Item  
or
- b) qual022 – Epoxy Coated Reinf. Steel

has an unexpired listing for the Fabricator with a Field Acceptance Method of 5005(2). Every effort should be made to make this inspection at point and time of delivery.

2. Inspect delivered deformed bar steel for mill markings. Markings should appear as detailed in Reference Document 5005-R1(1). Every effort should be made to make this inspection at point and time of delivery.

3. Confirm the deformed bar stock is approved by verifying qual012 – Bar Steel Reinforcement, Billet Steel (with the identified steel mill as the Manufacturer) has an unexpired listing on the Approved Products List with a Field Acceptance Method of 5005.

4. When epoxy coated, inspect handling, coating damage, and coating damage repair procedures for compliance to AASHTO M317.

5a. For all SiteManager projects: Required documentation involves the Residency capturing data in an electronic SiteManager Contract Sample Information / AM5005 Test Template Record.

5b. For Non-SiteManager projects: Key data fields of the SiteManager method are recreated on Reference Document Form 5005-F1(3). Printing and completion of a Form 5005-F1 by the Residency and placement of it by them in their Non-SiteManager project file is the acceptable method.

### NOTES

1. Frequently inspect epoxy coated reinforcement for handling, coating damage and damage repair. The epoxy coating is quite susceptible to damage until it rests in it's final assembled position. Damaged epoxy coating in a finished structure may well be cause for premature structure damage or even failure.

2. The approval and listing process for Reinforcing Steel Fabricators is designed to assure that they only fabricate using pre-approved raw materials on Oklahoma DOT specification projects. Additionally, for unfabricated bar steel or steel reinforcement other than deformed bars, they only ship pre-approved materials to Oklahoma DOT specification projects. Approved Reinforcing Steel Fabricators also maintain mill test reports etc. pertaining to all shipments. The primary focus for all fabricated reinforcing steel is to inspect deliveries to verify the Reinforcing Steel Fabricator is approved.

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3. Frequently inspect deliveries of deformed bar steel for mill markings. For fabricated deformed bars, this is a method of field monitoring Reinforcing Steel Fabricators deformed bar stock usage. When deliveries are made directly from the mill to the project, such as for continuously reinforced concrete pavement, this particular inspection then becomes our primary focus.

4. This Acceptance Method has a delivery/usage point and time focus: What steel reinforcement was delivered, will be or is being used on the project and are the materials and sources appropriate? This is the most accurate and thus desirable point and time to verify, control and document reinforcing steel usage.

Any steel reinforcement that can be verified in accordance with this Acceptance Method does not require any project-level material, manufacturer or supplier certifications as evidence of material quality or material acceptability.

### FREQUENCY

Ideally, inspect each shipment at point and time of delivery. Minimum is once per Reinforcing Steel Fabricator (P/S) per project, with full awareness that the Reinforcing Steel Fabricator (P/S) is unchanged and, by periodic field observance of mill markings and epoxy coating, reasonable awareness that the deformed bar stock is pre-approved and the epoxy coating is acceptable.

### REFERENCE DOCUMENTS

- (1) [5005-R1](#) – Deformed Reinforcing Steel Mill Marking Details
- (2) Approved Product Lists may be found in the Approved List section of the Materials & Testing e-Guide at: [https://www.ok.gov/odot/Doing\\_Business/Materials/](https://www.ok.gov/odot/Doing_Business/Materials/)
- (3) [5005-F1](#) - Acceptance Form for Reinforcing Steel on Non-SiteManager Projects

Revision 3/16/2015: Changed Materials & Testing e-Guide link, in Reference Documents (2) above, to new Materials & Testing e-Guide web page link.

Revision 7/5/2016: Changed Materials & Testing e-Guide hyperlink, in Reference Documents (2) above, to current Materials & Testing e-Guide URL.