



Bureau of Materials Materials Approval Procedures

MAP Number: **117-15**

Effective Date: April 1, 2015

Approved By: Eileen Sheehy

PROCEDURE FOR APPROVAL OF REBAR COUPLING DEVICES

PURPOSE:

To establish a procedure to approve rebar coupling devices for addition to the NJDOT Bureau of Material's Qualified Products List (QPL).

REFERENCES:

New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction
Section 905.04

ACI Manual of Concrete Practice
Code 12.14 - Splices of reinforcement

ASTM A 615, Standard Specification for Deformed and Plain Carbon Steel Bars for Concrete reinforcement

PROCEDURE:

A. Manufacturer's Request for Approval.

The Manufacturer shall request in writing for the approval of the product. Include the following information in the request:

1. The name, address and contact information for the manufacturer.
2. The name and size designations of the couplers to be evaluated.
3. Independent test data indicating couplers meet the minimum requirement of 125% yield strength (f_y) of the bar.

Mail the request for approval to the following:

Mailing Address (USPS):

Manager, Bureau of Materials (Thiokol Bldg. 4)
New Jersey Department of Transportation
P.O. Box 600
Trenton, NJ 08625-0600

Street Address(UPS, FedEx, etc.):

Manager, Bureau of Materials (Thiokol Bldg. 4)
New Jersey Department of Transportation
930 Lower Ferry Road
West Trenton, NJ 08628

B. Bureau of Materials Review of Test Data.

The Materials Engineer (ME) will review the test data for compliance with this MAP. If the data indicate that couplers meet the minimum requirement of 125% yield strength (f_y) of the rebar, then the ME will request samples from the manufacturer for testing by the ME. If the test data indicate that the couplers do not comply, the ME will reject the product for approval.

C. Bureau of Materials Laboratory Testing

The ME will test samples of coupler assemblies for compliance. For approval, each of the following samples when tested must meet the minimum requirement of 125% yield strength (fy) of the rebar:

1. Three uncoated coupler assemblies (rebar and coupler) of 3 different bar sizes (#4 thru #8).
2. Three epoxy and/ or galvanized coated coupler assemblies of 3 different bar sizes (#4 thru #8).

(Note: maximum length of each assembly is 48 inches)

PROJECT ACCEPTANCE REQUIREMENTS:

Qualification of a product and addition to the QPL does not constitute a blanket approval of the material. The Contractor for each proposed project must submit the product and source on a Materials Questionnaire as specified in Section 106. The ME will approve the product and source on a project to project basis based on the specifications for the project. The ME will sample, test and accept the material according to the applicable Section of the *NJDOT Standard Specifications for Road and Bridge Construction*.

DISQUALIFICATION:

The ME may remove the product from the QPL for non-conformance with specification requirements or for a documented history of poor field performance. The manufacturer shall notify the ME, in writing, of any change in product formulation. Failure to notify the ME of changes in product formulation will result in disqualification.

REQUALIFICATION:

The ME will reevaluate a product which has been disqualified and removed from the QPL only after submission of a formal request along with acceptable evidence that the problems causing the disqualification have been resolved.

The ME may require the manufacturer to requalify the product for any of the following reasons:

1. To ensure that obsolete products are not kept on the list, the ME may request written confirmation from the manufacturer that the product is still available and has not changed formulation. Failure to respond to the Bureau's written request will result in the product being removed from the list.
2. If the formulation of the product has changed, the ME may require that the new formulation be requalified.
3. If the Department's standard specifications change or if the referenced ASTM or AASTHO standards change, the ME may require requalification to ensure that the product meets the new specification.