

SECTION 123

CONCRETE REINFORCEMENT

123.1 DESCRIPTION

- A. Bar Reinforcement – Structures and Paving (excluding dowel and tie bars):** Bar reinforcement for structures and concrete pavement, shall conform to the requirements of AASHTO M 31 (ASTM A615) Grade 60. Bar reinforcement shall be deformed, unless otherwise noted.
- B. Welded Wire Reinforcement:** Shall conform to ASTM A1064. The optional yield strength measurement will only be required for welded wire reinforcement utilized in box culverts.
- C. Epoxy Coated Reinforcement:** A Certificate of Compliance and a copy of all quality control test results for the epoxy coating shall be furnished for each shipment supplied for use on a project.

Dowel bars for concrete pavements shall be epoxy coated and shall conform to AASHTO M 254 Type B except the film thickness shall be from 5 to 13 mils after cure.

All other epoxy coated reinforcement shall comply with ASTM A775.

- D. Tie Bars:** Shall conform to the requirements of AASHTO M 31, Grade 40, except rail steel shall not be used for tie bars that are to be bent and re-straightened. Tie bars shall be deformed. Tie bars shall be epoxy coated.

Sawing or shearing of the tie bars to obtain the specified length will be permitted provided the coating is not damaged and the resulting bar is free from burring and other deformations. The cut ends shall be coated.

- E. PCC Paving Dowel Bars and Dowel Bar Assemblies:** The steel cores of dowel bars and plain round bars shall be plain round bars conforming to AASHTO M 31 (ASTM A615) Grade 40 or 60, M 227 (ASTM A663) Grade 70 minimum, or M 255 (ASTM A675) Grade 75 minimum. The bars shall be the diameter shown in the plans, free from burring or other deformation restricting slippage in the concrete. Dowel bars shall be epoxy coated.

Sawing or shearing of the dowel bars will be permitted provided the coating is not damaged and the resulting bar is within the permissible deformations. The cut ends are not required to be coated. Any deformation larger than true shape shall not exceed a 0.04 inch increase in diameter or thickness and shall not extend more than 0.40 inch from the dowel end.

Bond breakers used to pre-coat dowel bar assemblies shall be one of the products from the SDDOT Approved Products List.

123.2 METHOD OF MEASUREMENT

Reinforcing Steel will be measured as specified in plans. If reinforcing steel measurement is not specified in plans it shall be incidental to the associated concrete bid item.

123.3 BASIS OF PAYMENT

Reinforcing steel will be paid for as specified in plans. If reinforcing steel payment is not specified in plans, it shall be incidental to the associated concrete bid item.

END OF SECTION