lowa Department of Transportation

Office of Materials

October 16, 2012 Supersedes October 19, 2010

Matls. IM 491.25

INSPECTION & ACCEPTANCE FIBER REINFORCED POLYMER LAMINATE SYSTEMS FOR STRENGTHENING OF CONCRETE STRUCTURES

GENERAL

Fiber reinforced polymer (FRP) laminate system is comprised of fiber fabric and epoxy adhesive. Application of the FRP laminate system shall meet the requirements of the applicable lowa Department of Transportation Specifications.

ACCEPTANCE

Acceptance of a FRP laminate system for use on the Department of Transportation projects will be on the basis of manufacturer and brand name approval.

Approved manufacturers and brands names of FRP laminate systems are listed in Appendix A.

MANUFACTURER & BRAND NAME APPROVAL

To obtain the approval for a FRP laminate system, the manufacturer shall submit the following items to the Office of Materials in Ames, Iowa:

- Product identification including brand name and product number
- Current Material Safety Data Sheet (MSDS)
- Complete manufacturer's recommendation for usage
- Acceptable test results showing the submitted FRP laminate system conforms to the requirements listed in the Iowa DOT Specifications for fiber reinforced polymer repair for concrete containment of collision damaged pretentioned prestressed concrete beams.

The Office of Materials will evaluate the material based on the submitted test results for approval and if necessary, will test the material.

Approval of a FRP laminate system may be withdrawn because of deficient monitor test results, product changes made after original approval, or unsatisfactory field performance.

CERTIFICATION

The manufacturer shall file a certification at the beginning of each calendar year stating that the material supplied during that year shall be identical with the formulation previously tested and approved by the Office of Materials.

MONITOR SAMPLING & TESTING

The Office of Materials may sample and test FRP laminate systems at any time to verify compliance with specification requirements.