QPL 24 CONCRETE LATEX MODIFIERS

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PROCEDURES

GENERAL

This evaluation procedure outlines the Department's approval process for concrete latex modifiers used to densify bridge deck concrete to protect the structural concrete from deterioration caused by absorption of deicing salts and water.

SPECIFICATIONS

TDOT 619
AASHTO T 259
AASHTO T 260

PROCEDURES

A completed Product Evaluation Form, MSDS sheets, if applicable, product data information and a sample of the product being tested must be submitted to the Division of Materials and Tests.

A six-inch by twelve-inch hardened Portland cement concrete cylinder will be used as a test specimen. The cylinder shallbe molded using the mix design specified in the above specifications. The six-inch by twelve-inch concrete cylinder will be sawed in half at an angle of ninety degrees from the twelve-inch axis. The concrete surface shall be abraded using sandblasting techniques. Next place a dam around the top edge of the concrete cylinder. The concrete specimen will be covered with a 3% solution of NaCl to a depth of one-half inch and maintained for ninety days in accordance with AASHTO T 259.

After ninety days of exposure the specimen shall be allowed to dry and then the surface shall be wire brushed until all salt crystal buildup is completely removed. A test sample will be taken at the one-half to one-inch depth from each end of the test cylinder. The untreated end of the test cylinder will be the control. The chloride content of each sample shall be determined in accordance with the procedure in AASHTO T 260. The amount of NaCl absorbed into the test cylinder will be determined by subtracting the control from the sample taken from the area treated with the submitted product and covered with a 3% solution of NaCl.

Approval of the product will be based on the following minimum criteria:

Results of 90 day ponding test - <0.5 lbs/cy chloride ion penetration.
Modifier shall contain a minimum of 46% solids.