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Development of Performance Guidelines for the Selection of Sealants Used in Pavement Maintenance

Objective

To develop performance guidelines for the selection of sealants to ensure that the most durable and best-performing products are used.

Background

Regular sealing of cracks and joints is a proven maintenance measure that extends the service life of pavements. However, sealants often fail within three years. Performance guidelines are required to guide users in the selection of suitable sealants.

Statement of Work

The work consists of developing the following:

- Procedures to measure the short- and long-term aging effects of bituminous sealants
- Methods to assess sealant performance in summer and winter temperatures
- A sealant adhesion test that takes aggregate type into account
- Performance parameters for sealant selection

Expected Outcomes

Document with performance guidelines for sealant selection based on specific local conditions.

Partners

Department of National Defence Canada, The Greater Toronto Airport Authority, The Ministry of Transportation of Ontario, McAsphalt Industries Ashwarren-Lafarge, the cities of Calgary, Edmonton, Hamilton, Toronto and Winnipeg, the Regional Municipalities of Peel and Niagara, the Departments of Transportation of Connecticut, the District of Columbia, Georgia, Michigan, Minnesota, New Hampshire, New Jersey, New York, Rhode Island, Virginia and Texas, and Virginia Tech Transportation Institute.

Workers apply crack sealant to pavement

Start/Expected Completion Dates

This project began in 2001 and will be completed in Dec. 2007.

Project Manager

Dr. J-F Masson: 613-993-2144; Jean-Francois.Masson@nrc.gc.ca

For more information, see http://irc.nrc-cnrc.gc.ca/ui/ur/sealants_e.html

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