

Standard Guidelines for Product Review

Asphalt Release Agent;

Section 00745.22

August 22, 2011

00745.22 – Asphalt Release Agent

ODOT maintains a list of products designed for application on the bed of a truck to prevent hot asphalt mix from adhering to it, or at least reduce the adhesion. Our main concern is that the asphalt release agent does not reduce the performance of the asphalt cement coating of the HMA mixture.

This is not to be confused with any solution that is used to clean asphalt materials from tools. Products in the Asphalt Release Agent category will only reduce the bond of the asphalt cement to the truck bed. Products that can clean or remove asphalt from tools will not be acceptable in the Asphalt Release category.

REQUIREMENTS - We require products in this category to meet the following requirements:

1. It must function to reduce the adhesion of asphalt cement sticking to the truck bed.
2. It must be harmless to the environment.
3. It must be harmless to the HMA placed in the truck after application of the coating.

TO APPLY for consideration and possible inclusion on the QPL, submit the following:

- [Preliminary information for Product Evaluation Form](#).
- Current, legible copy of the MSDS.
- Spec data sheet, including the basic ingredients of the material.
- Detailed installation instructions.
- List of limitations and precautions.
- Evidence or affidavit that the material is harmless to the environment.
- Copy of NTPEP test results listed in A below, or
- Independent test results showing conformance to test requirements listed in B below.

TEST REQUIREMENTS - Products in this category must comply with one of the two following evaluation methods.

- A. National Transportation Product Evaluation Program (NTPEP)
for Asphalt Release Agents Testing (www.ntpep.org)

7 day Asphalt Stripping Test – Our requirements are as follows

- no stripping with diluted samples and
- no stripping with non-diluted samples.

(Mixture) Mixture Slide Test (amount of binder that remains.) Result should be little or none.

(Binder Only) Asphalt Performance Test (amount of binder remaining.) Result should be little or none.

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- B. Test results showing less than 15% change in viscosity when performed according to the following protocol.

1. SCOPE:

- (a) The asphalt release agent is to be evaluated for the effect that the asphalt releaser agent has on asphalt binder viscosity.
- (b) Follow AASHTO Test Method T 319 or AASHTO T164 & T170 to extract asphalt binder from an asphalt mixture and recover the binder for testing.

2. SAMPLE PREPARATION:

- (a) An approximate 500 ml. sample of asphalt release agent and water, (at the manufacturer's specified dilution rate) shall be placed in a spray bottle and mixed well.
- (b) Obtain an adequate amount of bituminous mixture that will provide 2 representative 1250 to 1750 gram samples of bituminous mixture. Heat the mixture to approximately 290°F.

3. PROCEDURE:

The two samples are tested as follows:

- (1) One of the samples is placed in a pan and approximately 87 grams of the release agent mixture is sprayed over the sample. Thoroughly mix the release agent into the sample.
- (2) The other sample is tested in its original state without any release agent applied.
- (3) Extract the asphalt binder from the two samples according to the AASHTO test procedures identified above. Since the percent asphalt in the mixture and the sieve analysis of the extracted aggregate is not determined; the initial sample weights need not be determined.
- (4) After the asphalt has been extracted, recover the asphalt binder from each of the two samples according to the AASHTO test procedures.
- (5) Perform an original viscosity on each recovered binder in accordance with AASHTO T-202. The two results should be similar to each other.

4. REPORT:

- (a) Manufacturer's name, address and phone number.

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- (b) Manufacturer's dilution rate used in this test.
- (c) The base ingredient of the product.
- (d) The results of the viscosity comparison test.

Submit all documentation to:

Oregon DOT – Materials Laboratory

Product Evaluation Coordinator

800 Airport Road SE

Salem OR 97301-4792

<http://www.oregon.gov/ODOT/HWY/CONSTRUCTION/QPL/QPIndex.shtml>

Please send no samples at this time.