

# ***CONSTRUCTION PROCEDURES HANDBOOK***

SECTION VI	SUBSECTION T	DATE
CONSTRUCTION OPERATIONS	SAMPLING EMULSIFIED ASPHALT FOR MICROSURFACING, SLURRY SEAL, TACK COAT AND PRIME COAT	09/10/2019

This procedure covers obtaining samples of emulsified asphalt used for microsurfacing, slurry seal, tack coat, and prime coat.

Note: This procedure does not detail sampling of asphalt binder (PG 64 or PG 76) tack coat. Metal quart cans (paint cans) are required for sampling of asphalt binder and extreme caution is needed due to high temperatures.

Caution: Bituminous products are stored at elevated temperatures. Always use appropriate safety equipment and precautions for hot liquids.

When sampling from the delivery tanker trailer before it is pumped into the distributor, ensure the truck driver takes the sample via the sample valve. When sampling from the distributor, the truck driver can take sample via the distributor sample valve, spray bar or application device. If there is no sampling valve or application device (wand) on the distributor, then the sample may be obtained using one of the nozzles on the spray bar.

When sampling from a sampling valve, ensure the truck driver allows a minimum of 1 gallon to flow into a waste container before obtaining sample. Discard this material. When sampling from an application device, ensure the truck drive allows a minimum of 1 gallon to flow into a waste container or to be distributed on the roadway to be paved before taking the sample. When sampling from the nozzle, the distributor should run at least 20 yards before taking the sample.

Ensure the truck driver fills the containers to within 1.5" of the top of container or about 85% of total volume. Do not allow sample to become contaminated. Use work gloves to take possession of the sample as the sample may be hot. After top is screwed on, clean the outside of the container with a clean dry cloth. Do not use solvents to clean the container. Do not allow sample to freeze. Do not allow the sample to be shaken, agitated or handled roughly. Do not transfer sample to another container.

Collect one sample (two 1-quart containers) for each type of material for the project. Take additional samples when there is suspicion that the material has been diluted or contaminated.

Use a wide-mouth jar or bottle, approximately 1 quart, made of plastic or glass with a screw on lid for the sample container. Sample containers may be obtained from the Regional Materials Engineer (ME) or the Bureau of Materials in Trenton.

Obtain the truck delivery ticket and certificate of compliance from each truckload of material delivered to the project. In order to properly test the sample the grade of the emulsified

asphalt needs to be indicated on the certificate. Place a copy of the paperwork inside of the completed Form LB-88 envelope and submit it with the sample.

Mark containers with the name of the project, DP#, Item #, date sampled, sample #, material type, name and location of manufacturer, product grade, lot number, tank number and name of NJDOT representative who witnessed the sampling. Only mark containers on the side, never on the lid. Coordinate sampling with the Contractor or truck driver. Witness the sampling and take possession of the sample. Ensure the sample is properly transported and stored.

Complete Form LB-88 Sample Envelope, provided by the ME, with the same information as marked on the sample container (See Attachment A). On the signature line, write the name of the inspector witnessing the sampling. On the bottom of the Form LB-88, add the RE's e-mail address for reporting purposes. Insert a copy of the certificate of compliance and a copy of the corresponding delivery ticket into the Form LB-88. Attach the Form LB-88 to the sample with a rubber band.

Once a samples are obtained, bring the samples to the field office as soon as practical. The sample must be stored in an environment between 50°F to 80°F. Ensure that the samples are not stored near a window, heating, or air conditioning duct

Transport to the Bureau of Materials' Liquids Lab in Trenton. (930 Lower Ferry Road, Trenton N.J. 08625), Building 2, (just after the gate) within 24 hours preferably but no later than 48 hours after sampling for the first days / nights operation. For subsequent days / nights, transport samples within 24 hours preferably but no later than 72 hours after sampling. Shipments of rapid setting and polymer modified tack coat samples need to be expedited because the material has a shorter shelf life than other emulsions. Coordinate with the RME for transportation of the samples.

**NOTE:**

Do not create a sample in Site Manager. The Bureau of Materials 'Liquids Lab' will create the sample in Site Manager.

## Attachment "A"

Example LB-88:

Item # 28

Charged To MRRC N208 DP# 12345

Seal No. \_\_\_\_\_ Sample No. ECS-14

Material Emulsion for tack coat

Size & Type CSS-1H

Producer XYZ Asphalt

Date of Report Submitting Sample 6/2/16

Signed: Eileen Sheehy

THIS SPACE FOR LABORATORY USE ONLY

report to: resident.engineer@dot.nj.gov

Charged To = Project Name & DP#

Sample No. = Inspector's Initials and a sequential number

Material = Description of material

Size & Type = Grade of Emulsion

Producer = Emulsion producer

Date of Report Submitting Sample = Date sample taken

Signed = Print name of inspector

Add the following:

Item #

RE's e-mail for reporting