

Section 932

**PROCEDURE FOR SAMPLING AND ACCEPTING
PAVEMENT MARKING PAINT AND BEADS****932. 1 ACRYLIC WATER BASED PAVEMENT MARKING PAINT****932. 1. 1 Scope**

This method covers sampling acrylic water based paint from totes in the applicator's yard and paint applied to the roadway. Samples obtained by this procedure may be used for acceptance and quality assurance.

932. 1. 2 Apparatus

1. One-pint metal paint can
2. A sample probe (thief) 48 inches long.

932.1.3 Procedure for sampling paint from totes

1. Agitate totes within 24 hours prior to sampling.
2. Open the lid on the top of the tote.
3. Using the bowl of a 16" ladle, clear out the upper layer on the paint enough to push the bowl down in without having the upper layer move back in to the ladle when it is drawn back out. Dip the bowl of the ladle into the paint through the cleared area, eight to twelve inches deep.
4. Pull up the sample and pour the paint that is captured into a clean, pint-size paint can.
5. Repeat the procedure until the paint sample is approximately 1/2" below the top of the sample can.
6. Label the sample and the tote as described in 932.1.4.6
7. The sampling technician and the applicator will each verify by signature that the sample is representative of the tote.

932. 1.4 Procedure for sampling paint applied to the roadway

1. Use a clean one-pint metal paint can. Samples submitted in other containers may not be tested and no acceptance report issued.
2. Allow a minimum of 10 gallons to be applied prior to taking sample.
3. Sample directly from the nozzle of the equipment applying the paint. Sample paint immediately after the paint has been completely agitated. (Stop all agitation before drawing the sample.)
4. Fill the sample container to within 1/2 inch of full.
5. Seal the containers immediately by tightly attaching the container's lid.
6. Clearly label each sample can with the following:
 - a. Project Number
 - b. Project Name
 - c. Paint Manufacturer
 - d. Batch Number
 - e. Field Number
 - f. Striping Company
 - g. Color of Paint
 - h. Date Sampled

i. Sampler's Name

1. Submit paint samples to UDOT Central Chemistry Lab or representative for acceptance. The sampling technician and the applicator will each verify by signature that the sample is representative of the tote.

932.02 GLASS SPHERES (BEADS) USED IN PAVEMENT MARKING PAINT**932. 2. 1 Scope**

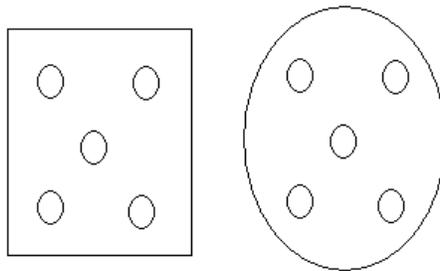
This method covers sampling glass spheres for use in paint applied to the roadway. Samples obtained by this procedure may be used for acceptance and quality assurance.

932. 2. 2 Apparatus

1. A sample probe (thief) 24 or 48 inches long.

932. 2. 3 Procedure for sampling beads from containers

1. Close the probe holes by inserting the rubber hose or twisting the interior cylinder.
2. Insert the probe vertically into the center of the bulk container and push the tube down until it touches the bottom of the container.
3. Open all holes by removing the hose slowly or twisting the interior cylinder to the open position.
4. Shake the probe slightly to fill with as much materials as possible.
5. Remove the probe quickly from the container.
6. Pour the material inside the tube into a sample container. Point the holes up while pouring to avoid losing material.
7. Repeat steps 1-6 four more times at 90° intervals. Each point should be about two thirds of the way from the center toward the wall or each corner of a bulk sack as shown in the diagrams below.



8. Combine all the material from one bulk container into one sample
9. Clearly label each sample container with the following:
 1. Bead manufacturer
 2. Batch number
 3. Striping Company
 4. Date Sampled
 5. Sampler's Name
10. Submit bead samples to the Central Materials Chemistry Lab (or representative) for acceptance.

932.03 CALIBRATING BEAD GUNS AND MEASURING BEAD DISTRIBUTION FROM TRUCKS

932.3.1 Scope

This method covers calibrating bead guns and measuring glass spheres for use in paint applied at the roadway. Measurements obtained by this procedure may be used for acceptance and quality assurance of bead distribution.

932.3.2 Apparatus

1. A graduated beaker to measure bead distribution rates from the truck.
2. A stopwatch

932.3.3 Procedure for Calibrating Bead Guns

1. Mark off a 30 foot section in which the striping vehicle can maintain its striping speed. Install a stripe over this area with no beads.
2. When the spray goes over the starting mark, start a timer. When the spray crosses the stopping mark at 30 feet, stop the timer.
3. Use table 1 to match the time required to travel 30 feet with the corresponding MPH.

Table 1

Time (seconds)	8.2 - 12.8	5.8 - 8.1	4.5 - 5.7	3.8 - 4.4	3.2 - 3.7	2.7 - 3.1	2.4 - 2.6	2.2 - 2.3	2 - 2.1
Speed (MPH)	2	3	4	5	6	7	8	9	10

4. Turn the bead gun on for 10 seconds and allow the beads to flow into a graduated beaker. Measure the volume of the beads.
5. Use table 2 to match the truck speed with the desired drop rate to find the minimum volume.
6. Adjust the output rate of the bead gun until the minimum volume is reached.

Table 2

Speed (MPH)	4 inch line	6 inch line
	Drop Rate (mL/10 seconds)	Drop Rate (mL/10 seconds)
	8#/gallon minimum	8#/gallon minimum
10	1450	2180
9	1310	1970
8	1160	1740
7	1020	1530
6	870	1310
5	730	1100
4	580	870
3	440	660
2	290	440