ARIZONA DEPARTMENT OF TRANSPORTATION * MATERIALS GROUP

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POLICY AND PROCEDURE DIRECTIVE

TO: ALL MANUAL HOLDERS	PPD NO. 21
SUBJECT:	EFFECTIVE DATE:
SAMPLING, TESTING, AND ACCEPTANCE OF GLASS BEADS (SPHERES) FOR STRIPING MATERIALS	January 6, 2011

1. **GENERAL**

- This Policy and Procedure Directive outlines the sampling and testing of glass beads used in conjunction with striping materials.
 - 1.2 The term "glass beads" shall be synonymous with the term "glass spheres".

2. ACCEPTANCE OF GLASS BEADS

2.1 Acceptance of glass beads shall be determined by the test results of samples obtained for pre-approval at the striping contractor's yard, or field samples taken from the project.

3. SAMPLING

- 3.1 Sampling of glass beads must be for an active ADOT project.
- For pre-approval of glass beads, the Structural Materials Testing Section will 3.2 obtain a sample from each lot at the striping contractor's yard as requested by the striping contractor.
- 3.2.1 One 50 pound bag of glass beads, or a minimum 1 gallon sample taken from a "super sack" as specified in paragraph 3.2.2, shall be sampled for each lot.
- 3.2.2 When sampling a lot consisting of super sacks, no less than four super sacks shall be sampled, and the samples combined to make one sample.

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- 3.3 A field sample shall consist of one 50 pound bag or a minimum one gallon sample taken from the striping truck for each lot. Each field sample must be identified with the manufacturer's lot number. When sampling from the striping truck, the sample shall be obtained from the drop nozzle after 500 feet of striping has been placed.
- 3.3.1 Unless the inspector suspects contamination of the glass beads, no field samples will be required for pre-approved lots.

4. TESTING OF GLASS BEADS

4.1 Glass beads shall be tested in accordance with the applicable requirements of Section 704, 708, and 709 of the ADOT specifications, or other governing documents.

5. STRUCTURAL MATERIALS TESTING SECTION RESPONSIBILITIES

- 5.1 For each lot of glass beads that is to be pre-approved, Structural Materials Testing Section will perform the sampling and testing.
- 5.1.1 A test report with the lot number will be issued for each project the glass beads are to be used for.
- 5.1.2 Upon completion of testing for pre-approval, Structural Materials Testing Section will provide the striping contractor with a copy of the test results.
 - 5.1.3 Structural Materials Testing Section will keep a log/file of all lots tested.
- 5.2 For glass beads that have not been pre-approved, Structural Materials Testing Section will test field samples submitted by the project.
- 5.2.1 The issuance of a test report and the maintaining of a log/file of all lots tested shall be performed as specified in paragraphs 5.1.1 and 5.1.3.
- 5.2.2 Structural Materials Testing Section will immediately notify the project of any failing test results.

6. PROJECT RESPONSIBILITIES

- 6.1 The project must receive a Certificate of Compliance and/or a Certificate of Analysis, as required, for each lot of glass beads from the striping contractor before striping can begin. Certificates of Compliance and Certificates of Analysis must conform to the requirements of Subsection 106.05 of the Specifications.
- 6.1.1 For glass beads that have been pre-approved, the striping contractor shall also provide the project with a copy of the Structural Materials Testing Section test results.
- 6.2 The project personnel will contact Structural Materials Testing Section to determine if the glass beads have been pre-approved.
- 6.2.1 If the glass beads have not been pre-approved, the project will obtain a sample of the beads, as specified in paragraph 3.3, and submit the sample to Structural Materials Testing Section for testing.

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