

WSDOT Test Method T 125

Determination of Fiber Length Percentages in Wood Strand Mulch

1. Scope

- 1.1. This test method covers the determination of the percentage, by mass, of fiber strands in a wood strand mulch sample meeting the specified requirements.
- 1.2. This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

- 2.1. AASHTO Standards:
 - M 231 Weighing Devices Used in the Testing of Materials
 - R 76 Reducing Samples of Aggregate to Testing Size

3. Summary of Test Method

- 3.1. A sample of wood strand mulch is separated into individual fiber strands and the length, width and thickness of each strand is measured. The fiber strands are then separated into two categories; Strands meeting specified requirements and Strands not meeting specified requirements. The percentage of wood fiber strand is then computed and compared to the requirements of the specification. (See Calculation below)

4. Apparatus

- 4.1. *Balance* – shall have sufficient capacity, be readable to 0.1 percent of the sample mass, or better, and conform to the requirements of AASHTO M 231 for general-purpose balance required for the principle sample mass being tested.
- 4.2. *Measuring device* – capable of reading to the nearest $\frac{1}{16}$ th inch (can either be one device or two separate devices)

5. Sampling

- 5.1 Split a bale of wood strand mulch into three approximately equal sections. From the interior face of each section obtain a minimum of 150 g of fiber strand, taking care not to damage the material.
- 5.2 Recombine the three 150 g samples and reduce the combined sample to a minimum sample size of 100g, in accordance with FOP for AASHTO R 76, Method B Quartering.

6. Sample Preparation

- 6.1. Air dry the sample to a Constant Mass as defined in AASHTO T 265.

7. Procedure

- 7.1. Spread the sample on a clean flat surface large enough to permit careful inspection of each strand. Measure the length, width and thickness of each strand in the 100g sample.
- 7.2. Compare the measurements of each strand to the specified requirements and separate the strands into two categories:
 - Strands meeting specified requirements
 - Strands not meeting specified requirements
- 7.3. Determine the total mass of each category.

8. Calculation

- 8.1. Report the following information:
 - 8.1.1. Calculate the percentage of fiber strand meeting the specified requirements to the nearest one percent as follows:

$$P = [(S) / (S+N)] \times 100$$

Where:

- P = percent of strands meeting the required specifications
- S = mass of strands meeting required specifications
- N = mass of strands not meeting required specifications

Performance Exam Checklist

WSDOT Test Method 125

Participant Name: _____ Exam Date: _____

Record the symbols "P" for passing or "F" for failing on each step of the checklist.

Procedure Element	Trial 1	Trial 2
1. The tester has a copy of the current procedure on hand?	_____	_____
2. All equipment is functioning according to the test procedure, and if required, has the current calibration/verification tags present?	_____	_____
3. Sample reduced to correct size?	_____	_____
4. Sample dried and cooled, if necessary?	_____	_____
5. Sample properly measured?	_____	_____
6. Strands separated into "meeting specification" and "not meeting specifications" categories?	_____	_____
7. Dry mass of each category determined to nearest 0.1 g?	_____	_____
8. Calculation performed correctly?	_____	_____

Comments: First Attempt: Pass _____ Fail _____ Second Attempt: Pass _____ Fail _____

Examiner Signature: _____ WAQTC #: _____

