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**Test Procedure for****CANTABRO LOSS****TxDOT Designation: Tex-245-F****Effective Dates: October 2005–August 2014.**

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**1. SCOPE**

- 1.1 Use this test procedure to determine the abrasion loss of compacted hot-mix asphalt specimens.
- 1.2 This test procedure measures the breakdown of compacted specimens utilizing the Los Angeles Abrasion machine. The percent of weight loss (Cantabro loss) is an indication of PFC durability and relates to the quantity and quality of the asphalt binder. The percentage of weight loss is measured and reported.
- 1.3 The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.
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**2. APPARATUS**

- 2.1 *Apparatus*, used in Tex-410-A.
- 2.2 *Balance*, Class G2 in accordance with Tex-901-K.
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**3. TEST SPECIMENS**

- 3.1 Compact test specimens:
- At the design asphalt content, gradation, and air void percent.
  - With a Superpave Gyrotory Compactor at the design number of gyrations.
  - With the diameter and height specified in the mixture design procedure.
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**4. PROCEDURES**

- 4.1 *Laboratory-Produced Mixtures:*
- 4.1.1 Prepare a laboratory mixture in accordance with Tex-205-F.
- 4.1.2 Compact two test specimens in accordance with Tex-241-F.
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- 4.1.3 Follow instructions for Sections 4.2.2–4.2.5.
- 4.2 *Plant-Produced Mixtures:*
- 4.2.1 Compact two test specimens in accordance with Tex-241-F.
- 4.2.2 Cool compacted specimens to room temperature and weigh. Record and designate the weight as *A* under Section 5.
- 4.2.3 Place the test specimen in the Los Angeles testing machine.  
**Note 1**—Do not include the steel balls.
- 4.2.4 Rotate the Los Angeles machine at a speed of 30–33 revolutions per minute for 300 revolutions.
- 4.2.5 After the 300 revolutions, discard the loose material broken off the test specimen. Do not include any of this material in the weight. Weigh the test specimen. Record and designate this weight as *B* under Section 5.
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## 5. CALCULATIONS

- 5.1 Calculate the Cantabro Loss:

$$CL = \frac{A - B}{A} \times 100$$

Where:

*CL* = Cantabro Loss, %

*A* = Initial weight of test specimen

*B* = Final weight of test specimen.

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## 6. REPORT FORMS

- 6.1 [Cantabro](#)
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## 7. ARCHIVED VERSIONS

- 7.1 Archived versions are available.