

## Colorado Procedure 57-19

*Standard Method of Test for*

### Determining the "Free Moisture" in Cold In-Place Recycled Pavement

#### 1. SCOPE

1.1 This procedure is to be used to determine the "free moisture" in cold in-place bituminous recycled pavement.

#### 2. REFERENCED DOCUMENTS

2.1 Two alternate procedures are recommended as follows:

CP 43, Method A (Microwave Procedure)

CP 21 (Oven Dry Procedure)

**NOTE 1:** Use of a hot plate is not allowed, sample shall be dried to constant weight (mass) in an oven at 230°F ± 9° (110°C ± 5°) if CP 21 is used.

#### 3. SAMPLING

3.1 Obtain a sample of the existing pavement from the roadway prior to cold in-place recycling. One sample per day of each pavement type being recycled should be sampled and tested.

**NOTE 2:** One sample per day needs to be taken to account for the variation in the in-place moisture of the existing pavement.

**NOTE 3:** Core samples are not recommended because of the excessive moisture introduced by the coring process.

3.2 Obtain a sample of the in-place recycled pavement, which has been compacted and is ready for either placement of the sealing emulsion or hot mix asphalt pavement overlay.

#### 4. PROCEDURE

4.1 Determine the moisture content of the existing pavement sample by one of the procedures listed in Subsection 2.1.

4.2 Determine the moisture content of the cold in-place recycled sample from the same location as referenced in Note 2 by one of the procedures listed in Subsection 2.1.

#### 5. CALCULATIONS

5.1 Calculate the percent "free moisture" as follows:

$$\text{Percent "free moisture"} = B - A$$

Where:

A = Percent moisture in Existing Pavement,  
B = Percent moisture in Cold Recycled Material.

#### 6. REPORTING

6.1 Report the "free moisture" to the nearest 0.1%.

6.2 Record the "free moisture" on the field density report for cold recycled pavement.

6.3 Document on CDOT Form #XX.

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