Colorado Procedure 57-20

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 the 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, the 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 before 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 results on your form.

NOTE: The CDOT Form is currently in development.