Determination of Fly Ash Sample Contamination By Use of Phenolphthalein Indicator

SC T 53

1. Scope

This test method outlines the procedure for determining whether a fly ash sample is contaminated with cement. This procedure is to be used when contamination is suspected due to abnormally low or high fineness, evidence of visible contamination during testing, or failure to turn beige, red, or brown during loss on ignition.

2. Referenced Documents

2.1. Lange's Handbook of Chemistry

3. Apparatus

3.1. Weighing Paper or suitable container
3.2. Dropping Bottle or plastic disposable pipette
3.3. Phenolphthalein Indicator Solution

4. Test Specimens

4.1. Representative sample of fly ash

5. Procedure

5.1. Stir or hand shake sample of fly ash.
5.2. Using a spatula, place one or two scoops of fly ash on a weighing paper or.in a suitable container.
5.3. Using a dropping bottle or disposable pipette, drop 2-3 drops of the phenolphthalein indicator solution on the sample.
5.4. Wait 2-3 seconds. If cement is present, the treated material will turn fuchsia.
5.5. If this color change does not occur, the material is classified as not being contaminated with cement and the material will be tested as normal for a fly ash sample. If the color does occur, no further testing will be performed.

6. Report

6.1. Report presence of contamination on Lab Form CEM 605