KES

Test Method of Ash for Grease

KES T – L165

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Additional Rule

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1. Scope of Application

This standard shall regulate a test method of ash for grease.

2. Summary of Test Method

(1) Method A : After burning a sample until carbon elements disappear, measure a weight of cinders and calculate into the ash.

(2) Method B : After burning a sample, adding sulfuric acid and intensely heating it, measure a weight of cinders and calculate into the sulfuric ash.

3. Equipment

(1) Crucible : Use a homemade, quartz and platinum crucible, which capacity of about 15 mℓ.

(2) Electric furnace : Use the one, which size is appropriate.

4. Reagent

(1) Sulfuric acid : Use the approximately 10 % special grade sulfuric acid solution in KES M 8103.

(2) Methyl orange indicator : Use 0.1 % methyl orange aqueous solution for use of analysis.

(3) Carbonate ammonium : Use carbonate ammonium for use of analysis.

5. Operation

(1) Method A : After heating the crucible and cooling down in a desiccator, measure the weight. After putting 2 ~ 5 gr of the sample into it and measuring the weight to the scale of 0.01 gr, heat the crucible slowly and burn from surface of the sample. At this time, if it is possible for the sample to produce bubbles and reduce its weight, put 1 ~ 2 mℓ of ethyl alcohol before heating.

When done with burning, intensely heat in the electric furnace until the carbon element disappears, cool down in the desiccator and measure the weight.

Repeat this operation until the weight is fixed.

(2) Method B : Heat the sample until the carbon element disappears, like 5. (1).

After cooling the crucible, melt fusible material with little amount of water, close a lid, and add the sulfuric acid a little excessively into the crucible using a pipette.

Place the crucible on a water double boiler, heat until before it actually boils, and wash solid material clung to the lid into the crucible with distilled water.

Check for sulfuric acid by dropping the methyl orange indicator into the crucible, evaporate and dry the material in the crucible, and in order to remove sulfuric

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