

KES

Analysis of Insoluble Matter in Greases

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1. Scope of Application

This standard shall specify an analysis test of the insoluble matter in greases.

2. Apparatus and Reagent

- (1) Chemical balance
- (2) Hydrochloric acid
- (3) Steam bath or water bath
- (4) Gooch crucible
- (5) Normal hexane (n-hexane)
- (6) Ethyl alcohol

3. Method

- (1) Measure the exact weight of the specimen and put in a beaker.
- (2) Add 50 ml of hydrochloric acid (10%), and heat until lumps disappear while agitating in the steam or water bath.

If the insoluble matter exists, filter out the specimen with the Gooch crucible in a warm state.

Wash the beaker and the Gooch crucible with warm water (140 ~ 140 °F), cleanse with warm n-hexane solution, and finally wash with the ethyl alcohol.

Dry the Gooch crucible and the insoluble matter at 248°F, and cool down to the room temperature in the desiccator.

Measure the weight of the Gooch crucible and the insoluble matter down to 0.1 mg.

4. Calculation

Calculation of the insoluble matter is as shown in the following equation.

$$A (\%) = \frac{G - I}{W} \times 100$$