

KES

Test Method of Evaporate
Loss of Insulating Oils

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1. Scope of Application

This shall regulate evaporate test of insulating oil.

2. Composition Oil of Ray oil and Alkil Benzene (except silicon oil)

(1) Summary : Calculate evaporate loss keeping sample in reservoir of 98 ± 1 °C for 5 minutes and find it as percent.

(2) Device and appliance

(a) Sample vessel : This shall be glass of inner radius 40 mm, length 50 mm and mass 20 g and flat plate.

(b) Drier

(c) Thermometer

(3) Operation

(a) Get sample of 20 ± 5 ml at sample vessel measured in advance and measure it to 1 mg.

(b) Put sample in drier of 98 ± 1 °C and keep it for 5 minutes.

(c) After some time, cool it in decicator to room temperature and measure it to 1 mg.

(4) Calculation

$$\text{Evaporate loss (\%)} = \frac{\text{Weight of sample (gr)} - \text{Sample weight after evaporation(gr)}}{\text{Sample weight (gr)}} \times 100 \quad \dots\dots\dots (1)$$

3. Silicon Oil

(1) Summary : Calculate evaporate loss keeping sample in reservoir of 150 ± 3 °C for 24 hours and find it as percent.

(2) Device and appliance

(a) Beaker : This shall be 50 ml and 200 ml and hard material.

(b) Thermostat : This shall be 150 ± 3 °C.