

KES

Analysis In Nitrogen For Lacquer Paint

KES T – M160

(EST.) 1989 – 03 – 30

Contents

1. Scope of Application
2. Qualitative Analysis
3. Quantitative Analysis
4. Estimating Standard

Additional Rule



1. Scope of application

This standard shall be applied to qualitative and quantitative analysis method of nitrogen for lacquer paint.

2. Qualitative analysis

- (1) Transfer 5gr of the sample to a evaporating dish, evaporate most of a solution by heating in a hot water bath, heat the sample for an hour at 105~110°C, remove the solid in the evaporating dish using the knife, put it in the circular filter paper to extraction, add acetone, then, extract a solution for an hour by Soxhlet extraction equipment.
- (2) Remove the extracting solution to the evaporating dish, evaporate acetone on the hot water bath, then, pour about 50ml of chloroform with the solid, melt perfectly, filter the solution using a glass filter. Wipe off the solid with chloroform again and again until the filtering solution should not coloring, put the lees in the glass filter in a 100ml Erlenmeyer flask, heat and boil the solid slowly with 50ml of sodium hydroxide solution(4gr of sodium hydroxide that is soluble in 1ℓ of water), and reflex for an hour.
- (3) Cool the solution with room temperature. It is filtered by filter paper. Decant 2ml of filtering solution into a test tube, add sulfuric acid about 2ml, and refrigerate up to room temperature.
- (4) Run down ferrous sulfate(Melt 6ml of ferrous sulfate with 1 : 5 Sulfuric acid 20ml) with wall of the test tube that is inclined. If a ring of dark brown has formed between sulfuric acid solution and ferrous sulfate solution, nitrogen gas exist.

3. Quantitative analysis

3.2.1 Summery

This standard shall be applied about the nitrogen analysis method for a resin-contained nitrogen.