

KES

Method of Nickel Analysis
in Copper Alloys and
Copper Product.

KES T – M051

(EST.) 1988 – 10 – 27

Contents

1. Scope of Application.
2. General Fact.
3. Method of Analysis
4. Mass Analysis
5. Photometry.
6. Atom Photometry.



1. Scope of application

This standard shall prescribe for method of nickel analysis in copper alloys and copper product.

2. General fact.

General fact of method analysis shall follow KES bT-M039 (Method of nickel analysis in copper alloys and copper product)

3. Analysis method.

Nickel analysis in copper alloys and copper product is to be analyzed by following 3 ways.

- (1) Mass analysis : Applied to sample containing nickel more than 1%
- (2) Photometry : Applied to sample containing nickel 0.01 ~ 7.0%
- (3) Atom photometry : Applied to sample containing nickel less than 1%

4. Mass analysis

4.1 Outline.

After dissolving sample in mixture acid, electrolysis copper to separate and make alkaline with ammonia then deposit nickel with dimethyl glyoxime and dry at 110 ~ 120 °C then fix quantity for nickel.

4.2 Reagent.

- (1) Mixture acid: Make with mixing Nitric acid, surfate, water at the rate of volume
7 : 10 : 40
- (2) Ammonia(1 : 1)
- (3) Tartar solution(5%)
- (4) Dimethyl glyoxime alcohol solution (1%)

4.3 Equipment