

KES

General Rules for Chemical
Analysis of Copper Products
and Copper Alloys

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1. Scope of application

This standard shall specify general analysis method of ingredients of copper products and copper alloys.

2. Analysis samples

Extract analysis sample by KS D 5002 (Examination rules of non-metallic materials and test samples after removing defects that is attached on the surface. In test sample case, average composition of the materials must be indicated.

3. Others

General particulars are according to KS M 0001

(General rules about chemical analysis and test method).

Note ⁽¹⁾ Make some kinds of tools such as drills clean by alcohol.

After removing oil and other attached materials on surface of sample and make it clean, trim it and collect residue in order to remove iron in it by a strong magnet.

Note ⁽²⁾ Gather more than two casting samples whenever they are melted.

In case of trimming casting samples and products samples, use methods that a drill pierces the parts close to center and end perpendicular to cross section or that it does till it contacts with center part from both of the ends at least. Other methods can be used in accordance with above methods.

Pay attention to prevent oxidation because trimmed surface sometimes oxidized by heat when samples are trimmed.

In case that trimmed samples are oxidized, it is not suitable for a sample and therefore, treat just as follows in order to use as a sample.

Put a sample in the beaker and add nitric acid (2%) to the very limit of immersion. Then, solve oxidation layer on surface by shaking and wash it several times with water after pouring the liquid by tilting. After that, wash it 2 ~ 3 times by purified alcohol.

After wrapping it with double filter papers and putting it in a desiccator that has calcium chloride in order to dry, use it as a sample.

All the clean samples that are gathered by trimming test materials need to put in a desiccator for more than an hour in order to use.