

KES

Etching Method of Cu and Cu Alloys

KES T – K007

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Contents

1. Scope of Application
2. Test Instruments
3. Testing Method and Order



1. Scope of Application

This standard determines effective judgement for standard etching liquid manufacturing when observing the structure of Cu and Cu alloy.

2. Test Instruments

(1) Cu etching liquid: distilled water and ethyl alcohol (96 %) 100 ~ 200 ml

HCl (1.19) 20 ~ 50 ml

FeCl (III) 5 ~ 10 g

(2) Optical Microscope

3. Testing Method and Order

(1) Specimen making: Sample a specimen with a micro cutter. Form the specimen with a mounting press.

(2) Grinding

220 → # 320 → # 400 → # 600 → # 800 → # 1000

(3) Polishing

After polishing with 1 μ aluminum an abradant, polish it again with 0.05 μ an abradant.

(4) Etch with Cu etching liquid prepared : For 20 seconds at the room temperature.

(5) Structure observation and judgement