KES

Method for Analysis of Magnesium in Zinc Alloy Die Castings

KES T – M200

(EST.) 1989 – 12 – 30

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Additional Rule

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1. Scope of Application

This standard shall specify an atomic spectrophotometry method for specimen, which magnesium content in the zinc alloy die castings is 0.001 % ~ 0.1 %.

2. Summary

Dissolve the specimen with hydrochloric acid, measure the absorptivity of magnesium measuring line standard solution and the specimen at a range of wavelength 285.2 mm with the atomic spectrophotometer, and obtain concentration of the magnesium from the measuring line.

3. Test Apparatus

Atomic spectrophotometer

Remark : Follow KES T M 002 (Atomic Spectrophotometry Method) for manual.

4. Reagent

(1) Hydrochloric acid (1 : 1)

(2) Hydrochloric acid (1 : 9)

(3) Hydrogen peroxide (30 %)

(4) Magnesium standard solution (1.0 mgMg / mℓ) : Follow KS M 0002

(Production Method of Standard Solution Kinds for Chemical Analysis)

(5) Pure zinc (Above 99.9 %)

5. Test Method

(1) Measure exactly 10 g of the specimen and move to a beaker (300 mℓ).

(Amount of the specimen can be adjusted according to the magnesium content)

(2) Cover a clock dish, put 50 mℓ of the hydrochloric acid (1 : 1), and add more little by little according to a reaction rate.

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