

KES

**Test Standard of Standard zinc
Solution for Atomic Absorption
Spectrum Analysis**

KES T – L396

(EST.) 1990 – 11 – 25

Contents

- 1. Scope of Application**
- 2. Reference Material for Manufacture of
Standard Solution**
- 3. Storing Method**
- 4. Chemical Reagent**
- 5. Manufacturing Recipe**
- 6. Related Standard**



1. Scope of application

This standard shall be applied to manufacturing and storing method for zinc standard solution, which is used for the atomic absorption spectrum analysis.

2. Reference material for manufacturing standard solution

Use metal and chemical reagent of high degree of purity for manufacturing standard solution, which is used for analyzing steel and raw material of steel by atomic absorption spectrum.

(1) Metal of high degree of purity

Use metal of which degree of purity is more than 99.9%. It should be fragment for easy dissolving and should be dry after removal of fat. Moreover, if an oxidized film is formed on the metal of high degree of purity, dissolve oxidized film with dilute hydrochloric acid, clean with methyl alcohol, dry the metal, and use it immediately.

(2) Chemical reagent

An oxide, a chloride, and a carbonate of metal are generally used. Use at least 1st class chemical agent, and especially choose stable compound that do not chemically change by weathering and deliquescence. After removing impurities by re-crystallizing, re-precipitation and sublimation if required, dry at uniform temperature and dissolve in acid. Boil the solution sufficiently. Dry it by evaporation and re-dissolve extracted material in water as circumstance requires. When dissolving reagent, cover measuring dish for losing and contamination.

3. Storing method

It is important factor to know exact composition of standard material to determine storage of solution and accuracy of analysis. It is appropriate that each component concentration of standard raw solution is 0.05 ~ 1.0 %. These can be stored for several weeks or months. For dilute solution, frequently manufacture the solution to avoid concentration