

## Application Memo

# Standardize EDTA for Calcium Oxide Determination in Cement

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Chelatometric titration
Standards	JIS R5202

## 1. Overview

Referring to JIS test method, EDTA standard solution is standardized as follows. Add pure water to 0.02mol/L zinc solution and add buffer to adjust pH 9.5 to 10.0. Then, add the EBT indicator and titrate with 0.02mol/L EDTA. The endpoint is determined by the intersection of the color change of the indicator on the titration curve. Calcium oxide equivalent of the EDTA standard solution (0.02mol/L EDTA) is calculated from the titration volume.

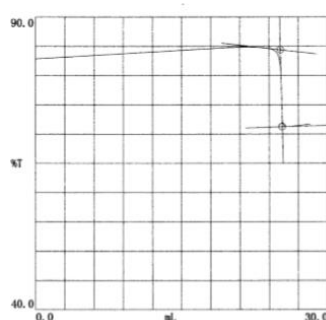
## 2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier PTA)
Electrode	Photometric sensor Interference filter (630nm)

## 3. Reagents

Titrant	0.02mol/L EDTA solution
Solvent	Pure water
Additive	0.02mol/L zinc reference solution Buffer (Ammonium chloride, Ammonia water)
Indicator	EBT (Eriochrome black T, Triethanolamine, Ethanol)

## 4. Example



—Titration curve—

—Measurement results—

	Sample (mL)	Titer (mL)
1	25.0	25.3155
2	25.0	25.3381
3	25.0	25.3351
Average		
SD		
RSD(%)		

Calcium oxide equivalent: 0.0011145g

Please feel free to contact us for any further information.  
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<http://www.kyoto-kem.com/en/contact/form.php>