

## Application Memo

# Total Salinity of Hardened Concrete

Industry	Ores
Instrument	Automatic potentiometric titrator
Measurement method	Precipitation titration
Standards	JGJ/T 322, JIS A 1154, Japan Concrete Institute JCI-SC5

## 1. Overview

Total salinity of hardened concrete is determined according to Japan Concrete Institute JCI-SC5 Simplified Test Method for Total Salinity of Concrete.

After 2mol/L nitric acid and 30% hydrogen peroxide solution are added to the sample, leave it to cool at room temperature, and titrate the filtered sample liquid with 0.01mol/L silver nitrate up to the endpoint, which is the maximum inflexion point on the titration curve. The concentration of salinity is calculated from the titration volume of silver nitrate.

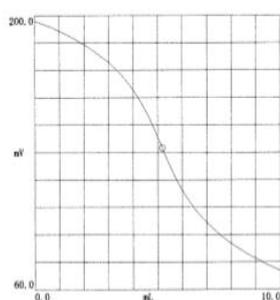
## 2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Chlorine ion selective electrode, Mercury sulfate reference electrode

## 3. Reagents

Titrant	0.01mol/L silver nitrate solution
Solvent	Pure water
Additive	2mol/L nitric acid, 30% hydrogen peroxide,

## 4. Example



—Titration curve—

—Measurement results—

	Sample (g)	Titer (mL)	Salinity (ppm)
1	9.9930	5.1883	305.25
2	9.9908	5.1141	300.95
3	9.9935	5.1541	303.22
Average			303.18
SD			2.15
RSD(%)			0.709

Please feel free to contact us for any further information.  
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