

## Application Memo

# Total Base Number of Gasoline

Industry	Petrochemicals
Instrument	Automatic potentiometric titrator
Measurement method	Acid-base titration
Standards	JIS K2501, ASTM D2896, ISO3771

## 1. Overview

The standard test method of total base number of petroleum products and lubricant is specified by JIS K 2501-2003 "Petroleum products and lubricants - Determination of neutralization number". The test sample is dissolved in mixture of chlorobenzene and acetic acid and titrated with 0.1mol/L perchloric acetate solution up to the endpoint.

Total base number is calculated from the titration volume of perchloric acetate.

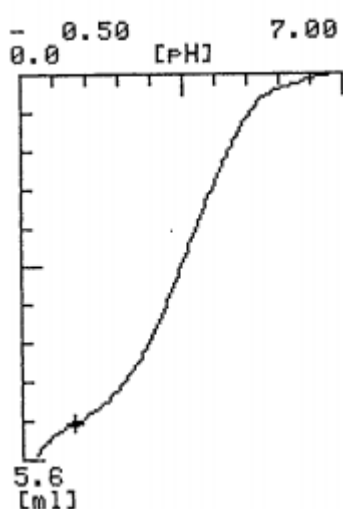
## 2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	pH glass electrode Double junction reference electrode Temperature compensation electrode

## 3. Reagents

Titrant	0.1mol/L perchloric acetic acid solution
Solvent	Chlorobenzene + Acetic acid (2+1)

## 4. Example



-Titration curve-

-Measurement results-

	Sample (g)	Titer (mL)	Total base number (mg/g)
1	3.0132	5.1037	9.5021
2	3.0167	5.1071	9.4974
3	3.0170	5.0961	9.4760
Average			9.4918
SD			0.0139
RSD(%)			0.147

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