# KYOTO ELECTRONICS MANUFACTURING CO., LTD.

TIR-98001enL

## Application Memo Acid Number of Liquid Polymer

Industry	Organic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Acid-base titration
Standards	

## 1. Overview

The acid number of liquid polymer is measured by titration with a 0.1mol/L potassium hydroxide in ethanol solution after the sample is dissolved in a mixture of xylene and 2-propanol. The endpoint is determined by the maximum inflexion on the titration curve. The acid number is calculated from the titration volume of potassium hydroxide.

### 2. Apparatus

	Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode pH glass electrode Double junction reference electrode Temperature compensation electrode	Electrode	5

### 3. Reagents

Reagent	0.1mo1/L potassium hydroxide in ethanol solution
Solvent	Xylene, 2-propanol

4. Example

	—Measurement results—			
- 250.0 0.0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Sample	Titer	Acid number
F \		(g)	(mL)	(mg/g)
E \	1	2.0055	8.7428	24.456
+ \	2	2.0085	8.9650	25.040
F \	3	1.9988	8.8706	24.897
L. Stan	Average			24.798
9.4 [m1]	SD			0.304
—Titration curve—	RSD(%)			1.23

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