KYOTO ELECTRONICS MANUFACTURING CO.,LTD.

KCI-04012-enL

Application Memo

Moisture of PET Pellet

Industry	:	Plastic, Rubber
Instrument	:	Karl Fischer Moisture Titrator
Measurement method	:	Coulometric Titration (Evaporation Method)
Standards	:	JIS K 0113, JIS K 0068, ASTM D 1533, ASTM D 1744, ISO 760

1. Overview

Moisture titration using Karl Fischer reagent is popularly practiced water determination worldwide as the most reliable method. The procedure is adopted in many official standards as test method specified in ISO, ASTM, DIN, BS and JIS.
PET (Polyethylene terephthalate) is generally hard to dissolve in KF solvent, and therefore, the indirect method using an oven to evaporate moisture in sample is generally practiced.

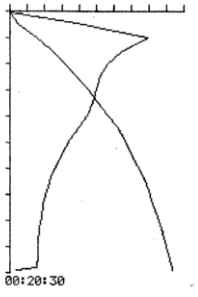
2. Apparatus

Main unit	:	Karl Fischer moisture titration volumetric system
Electrode	:	Electrolysis electrode　Twin platinum electrode for KF titration
Option	:	KF oven

3. Reagents

Annolyte	:	Hydranal Coulomat AG (Riedel de Haen)
Catholyte	:	Hydranal Coulomat CG (Riedel de Haen)
Carrier gas		Nitrogen gas (99.99%)

4. Example



—Titration curve—

—Measurement results—

	Sample (g)	Moisture (µg)	Concentration (ppm)
1	2.9695	354.9	119.52
2	3.0442	349.4	114.76
3	3.0163	329.3	109.16
Average			114.48
SD			5.19
RSD(%)			4.53

Please feel free to contact us for any further information.

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