

KES

Analysis of Isocyanate Group in Poly Urethane Material

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Contents

1. Scope of Application
 2. Method Summary
 3. Equipment
 4. Reagent
 5. Preparation
 6. Calculation
 7. Degree
 8. Report
 9. Estimating standard
- Additional Rule

1. Scope of application

This standard shall specify content analysis method of isocyanate group in urethane or prepolymer.

De-isocyanate that is a sensitizer has strong irritation to the skin. So avoid touch with the skin, eyes, and etc.

2. Method Summary

Urethane prepolymer is acted on di-n-butylamine for toluene of an excess of quantity.

After the reaction, di-n-butylamine is reversibly titrated with standard hydrochloric acid.

3. Equipment

- (1) Erlenmeyer flask : 250 mL, lid is made of polyethylene or cork
- (2) Magnetic Stirrer : TFE fluorocarbon is wrapped at an agitation rod.
- (3) Pipette : 25 mL
- (4) Burette : 50 mL or 100 mL
- (5) Chemical balance

4. Reagent

- (1) Bromphenol blue indicator solution : 0.1% solution
- (2) Di-n-butylamine solution : 0.1N solution that is prepared toluene
- (3) Hydrochloric acid : 0.1N
- (4) Isopropyl alcohol
- (5) Toluene

5. Preparation

- (1) Measure 1gr of the sample with accuracy, and put it in a 250 mL Erlenmeyer flask.