

KES

Analysis of ϵ -Carprolactam
in Nylon Resin

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1. Scope of Application

This standard shall specify a quantitative analysis method of ϵ -carprolactam in the nylon resin by gas chromatography (GC hereinafter).

2. Reagent and Apparatus

- (1) Gas chromatography
- (2) ϵ -carprolactam

3. Creating the measuring line

Add the ϵ -carprolactam to the specimen by a fixed amount, use as a measuring line specimen, analyze with the same method, and create the measuring line.

4. Method A

4.1 Condition

- (1) Column : 10% PEG 20 m / 3 mm ϕ $\times$ 2 m
- (2) Column temperature : 50°C ~ 220°C, 15°C / min
- (3) Carrier gas : 50 mL / min Helium (He)
- (4) Detector : FID Att 32×10^2
- (5) Pyrolysis temperature : 590°C 3 seconds

4.2 Operation

Adjust the apparatus to conditions of 4.1, put proper amount of the specimen into the pyrolysis device, and then pyrolysize at 590°C for 3 seconds.

After the pyrolysis, open a cork, which leads to the column, start the recording device, and create a chromatogram.

Operate the same method for the measuring line specimen.

4.3 Analysis