

ANALYTIC METHOD FOR DETERMINING MOISTURE CONTENTS

DOCUMENT CODE

CK-G04

EDITION N°

05

DATE

JULY 15, 2005

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1 of 2**1.0 Objective.**

Establish the steps for determining moisture contents (drying loss) in Sodium Carboxymethylcellulose (CMC).

2.0 Scope.

This method applies to all in-process products and for finished goods.

3.0 Reference document.

A.S.T.M D- 1439 -03.

4.0 Responsibilities.

The Laboratory Head is responsible for verifying the application of this analytic method.

The analysis technicians are responsible for exercising the method as described in this document and inform the Head of Quality Assurance, head of Production and Head of research and development of any discrepancies that might arise.

5.0 Terminology.

Moisture Analyzer:

Equipment used for measuring moisture from a solid specimen.

Moisture:

Amount of water in a specimen.

6.0 Procedure.

6.1 Sample preparation.

An approximately 300 gram in-process product and/or finished goods sample is taken and homogenized inside a bag, the required amount for the analysis is taken afterwards.

6.2 Materials preparation.

The analytical balance is to be operated consistent with document CD-G05 "balance operation manual".

- Tongs
- Oven at 105°C
- Aluminum dishes
- Analytical balance
- Desiccator (with blue silica gel)
- Spatula

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- Specimen to evaluate

6.3 Test execution.

6.3.1 In a tared aluminum dish, weigh a 3 to 4g. specimen on the analytical balance.

6.3.2 Place the aluminum dish with the specimen in the oven at 105°C for two hours and a half (handle the dish with the tongs).

6.3.3 Take the aluminum dish out of the oven with the tongs, immediately placing it in the desiccator leaving it there for 30 minutes after such time weigh the specimen using the analytical balance.

6.3.4 Place the specimen for half an hour in the oven, until a constant weight is observed, cool in the desiccator for 10 minutes and weigh.

6.3.5 Continue with this procedure until a difference of 0.005g. is obtained.

6.3.6 Moisture calculus.

$$\text{Moisture \%} = \frac{A \times 100}{B}$$

Where A: Heating weight loss in grams.

B: Specimen weight in grams.

6.3.7 Determination of total solids.

With the moisture contents, the total solids is calculated using the following formula:

Total solids = 100 - moisture %.