Moisture Determination of Chocolate

Precisa Moisture Analysis XM60 Series 330

Up to 230ºC	Featuring Auto-Stop Function	Up to 124g	Fast Moisture Analysis

Moisture Determination of Chocolate with Precisa Moisture Analyzers

The determination of moisture content is important within many areas of the food industry. Such areas include raw materials and incoming goods inspections, during production and storage, within quality control and in new product development. To ensure optimum food quality and safety, the level of moisture is carefully measured and controlled. Moisture content not only alters the weight of the product but can also modify the taste, texture, shelf life and appearance of food products. Furthermore, legislation may outline strict limits for moisture content in foods.

The food industry must work effectively and efficiently to maximize production whilst maintaining product of a uniform quality. As a result, the determination of moisture content needs to be performed quickly and accurately to enable adjustments and interventions to prevent any down time.

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Loss on Drying

Traditionally, the reference method for loss on drying (LOD) is performed by using a drying oven, but the analysis time can be lengthy due to the multiple manual steps required. By using a Precisa Moisture Analyzer the loss on drying result can be delivered directly, without the need for further calculations, in a matter of minutes.

Precisa Moisture Analyzers

Precisa offer a range of moisture analyzers. Within the food industry or where glass is not permitted, it is recommended to use a dark radiator moisture analyzer.

The information within this application note is intended as a guideline for the development of a moisture analysis and parameter setting. To limit the risk of crust formation and because the heating effect of dark samples is increased, the heating temperature selected was 85˚C. This method was performed using a Precisa XM60 Series 330 Moisture Analyzer

Description	Chocolate mass
Utensils	Knife, Aluminium pans, Glass fibre filter
Preparation	Rasped sample and spread thinly on filter
Sample weight (+/-10%)	2g
Temperature program	soft
Temperature	85ºC
Stop-Criteria	Autostop 2 Digits /60 s
Stand by temperature	80ºC
Moisture Content (average of 5 measurements)	1.26%
Standard Deviation (+/-)	0.04%
Average analysis time	5.5 min
Reference	Oven 130ºC. 1.3%