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SN

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

SN/T 2822-2011

**Food contact materials for export. Polymers. Determination of
temperature of plastics materials and article at the plastics/food
interface during microwave and conventional oven heating**

食品接触材料 高分子材料 塑料及制品在微波炉或传统炉加热过程中塑料与食品
界面温度的测定

(English Translation)

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard is identical with the European standard EN14233:2002 "food contact materials and articles of plastics and plastic products measured in the microwave Oven or conventional oven heating process temperature "interface between the plastic and food (in English).

In order to meet China's national conditions and ease of use, the use of this standard in EN14233:2002 doing the following editorial changes, the main difference as follows.

--- Remove the EN14233:2002 in the previous page, directory, foreword, test reports, appendix ZA and after page;

--- "This standard" instead of EN14233:2002 in "This part of this standard";

--- The EN14233:2002 introduction as the introduction of this standard;

--- The EN14233:2002 in the normative references ENV1186-1:1994 into identical with the SN/T 2824-2011 "Food contact materials - Polymer overall migration test conditions and methods Selection Guide";

--- With a decimal point instead of a comma as the decimal point, "";

--- "mL" to "mL" representation;

--- 7.3.3 of this standard in the first 6,7.1.1,7.1.2.2,7.2,7.3.1,7.3.2 and Articles respectively EN14233.

In 2002 and the first 6,7.1.1,7.1.2.2,7.2,7.3.1,7.3.2 paragraphs 7.3.3.

This standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard was drafted. People's Republic of China Jiangsu Entry-Exit Inspection and

Quarantine Bureau, People's Republic of China Shandong Entry-Exit Inspection and Quarantine Bureau, People's Republic of China, Changzhou import and export of industrial and consumer product safety testing center.

Introduction

Select the test material or article foreseeable harshest conditions of use considerable time and temperature, and plastic products for migration testing.

For plastics and products intended for use in a microwave oven, conventional oven and from SN/T 2824-2011 "Food contact materials - Polymer material Total material migration test conditions and methods Selection Guide "appropriate time and temperature conditions in Table 3 were selected migration testing.

It is necessary to know that in the most severe foreseeable conditions of use, the interface temperature food and packaging materials, in order to be able to choose the migration test Suitable temperature.

Intended for use in the microwave, mainly in microwave cooking or heating the aqueous plastics and food products, it is generally considered food/package Loading interface temperature does not exceed 100 °C. For more complex foods, including those high fat and/or high sugar content of food, it is difficult to predict During microwave cooking and heating the resulting temperature. Therefore, when such food cooking and heating, it is necessary to measure the food and plastic interface temperature.

For cooking or heating in a conventional oven, the temperature of the food and plastic interface depends on the furnace temperature, thermal conductivity and plastic products, food the nature of matter and the heating time is difficult to predict the temperature of the food and plastic interface. Therefore, heating and cooking in a conventional oven, it is necessary to measure the amount and temperature of the food plastic interface.

This standard describes the method can be used for measurement and plastic products in the microwave or conventional oven, the temperature of the food and plastic at the interface, So as to select the appropriate temperature for migration testing.

You can choose not to use this standard, and the choice is generally considered more stringent exposure conditions for migration testing.

Export of food contact materials - Polymer Plastics and products in the microwave or conventional oven Plastics and food during the determination of the interface temperature

1 Scope

This standard specifies the methods of measurement between the plastic and plastic products and food interface temperature in a microwave oven or conventional oven heating in order to Select the appropriate temperature for migration testing.

This standard applies to the most severe under foreseeable conditions of use, to be known to all food contact plastics and products. This includes pre-packaged Food, as proposed in the package in a heated snack, and requires some pre-prepared but within a package containing food cooking vessel, such as cake mix material. But also for the production of food at home and products used in plastic, or in commercial food production, as part of a single use, that does not contain or are not included in the sale of food.

Note: Although this standard is developed for the plastics and products, but it also applies to other packaging materials, including paper and cardboard, rubber and synthetic rubber, ceramic Products and glass. The temperature measurement method is applicable to conventional furnace heating metal materials, but these products will generate due to the shield should not generally in the microwave Furnace heating.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

Laboratory use specifications and test methods GB/T 6682 Analysis SN/T 2824-2011 the export of food contact materials - Polymer overall migration test conditions and methods Selection Guide Principle 3 it will be equipped with the most severe under foreseeable conditions of use that can come into contact with food and plastic products, in the microwave or conventional oven in heating. In the microwave heating process, the optical fiber thermometer to measure the temperature of the interface between the plastic and food. When heated in a conventional oven, except the heat Temperature measuring galvanic interface between the outer, fiber optic thermometer can also be used. The measured temperature is used to select an appropriate temperature for migration testing.

4 Reagents

The water test should be consistent with GB/T 6682 stipulated a water.

5 Instruments

5.1

polyethylene beaker, diameter 140mm ± 20mm, minimum capacity 1000mL.

5.2

expanded polystyrene foam pad, put in supporting (5.1) under polyethylene beaker, the thickness of at least 8mm.

5.3

Calibrated thermocouple or thermometer, measuring range $-10\text{ }^{\circ}\text{C} \sim 30\text{ }^{\circ}\text{C}$, the maximum deviation of $\pm 0.1\text{ }^{\circ}\text{C}$.

5.4

stirred with a plastic tube or rod.

5.5

thermostatically controlled incubator, the temperature can be maintained at $10\text{ }^{\circ}\text{C} \pm 0.5\text{ }^{\circ}\text{C}$.