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

SN/T 2816-2011

**Food contact materials for export. Polymers. Test method for
overall migration at low temperature**

食品接触材料 高分子材料 低温下总迁移量的试验方法

(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 European standards EN1186-12:2002 "food contact materials and articles - plastic - overall migration at low temperatures of the tested party Law "(in English).

This standard adopts EN1186-12:2002 when the editorial changes were made, the main differences are as follows.

--- Removed EN1186-12:2002 in the previous page, directory, preface, appendix AZ, reference purposes;

--- EN1186-12:2002 in 3.1,4.1,5.1 and 6.1 statement of the principle is the same, in this standard to merge into Chapter 3 Bank statements;

--- Remove EN1186-12:2002 standard 3.7,4.7,5.7 and 6.7;

--- Added Appendix A, will EN1186-12:2002 standard in precision 3.6.2,4.6.2,5.6.2,6.6.2 instructions listed directly in Appendix A; Added Appendix B, of the standard clauses numbering EN1186-12:2002 reg number control will be described (See Appendix B).

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

This standard was drafted. People's Republic of China Ningbo Exit Inspection and Quarantine.

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Export of food contact materials - Polymer Test methods for overall migration at low temperatures

1 Scope

This standard specifies the temperature in 5 °C ~ 20 °C and selected time, plastics in contact with food for overall migration in fatty food simulants Test Methods for.

This standard applies to most plastic overall migration testing, mainly for thin-film and sheet plastic overall migration test, but also with it can apply to any kind of cut to the overall migration of plastic or plastic container test appropriate size of the test piece, but there are still some plastics are not Suitable for overall migration test using this standard.

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.

Test method SN/T 2334-2009 Food contact materials - Polymer class overall migration into olive oil by total immersion method SN/T 2735-2010 Food contact materials - Polymer class olive oil simulants overall migration test methods for bags Installation method Test method SN/T 2817-2011 the export of food contact materials - Polymer class olive oil simulants overall migration Test cell method Test method SN/T 2818-2011 the export of food contact materials - Polymer class olive oil simulants overall migration Filling method SN/T 2824-2011 the export of food contact materials - Polymer class overall migration test conditions and methods Selection Guide Principle 3 by determining the loss of contact with the food simulant mass per unit area, to determine the overall migration of plastic samples.

Test conditions Reference SN/T 2824-2011 Chapter 5, Chapter 6 and Chapter 7.

At 5 °C ~ 20 °C conditions, the known mass of the sample is immersed in a period of time after the defatted sunflower oil, sunflower seed oil taken from defatted the sample, remove the sample surface adsorption skim sunflower oil, and then re-weighed.

Samples will absorb partially defatted sunflower oil, sunflower oil, skim through these solvent extraction, methyl esterification derivatives by gas chromatography Determination. By boron trifluoride/methanol mixture with a fatty acid (obtained from potassium hydroxide hydrolysis of defatted sunflower oil) methyl esterification derived trans should. Before extracting defatted sunflower oil is added the internal standard heptadecanoic acid triglycerides, in order to ensure the internal standard and skim through as sunflower oil React with all the active ingredient in plastic and extractable components. Internal standard and also involved in the hydrolysis of methyl esterification, hydrolysis and armor can be corrected Esterification process incomplete reaction.

After subtracting the sample defatted sunflower oil soaked net mass (this net mass from the initial mass of the sample. Sample from defatted sunflower oil Quality removed by subtracting the fat sunflower oil quality adsorbed on the sample), to obtain the overall

migration.

Sample mass loss per square decimeter of surface area to represent the overall migration (mg/dm²), taking at least three independent test results flat Mean as report results.

Due to contamination or experimental samples defatted sunflower oil loss during the testing process may cause some not easy to find erroneous