

Australian Standard™

**Plastics materials for food
contact use**

This Australian Standard was prepared by Committee FT/8, Plastics for Food Contact. It was approved on behalf of the Council of Standards Australia on 11 December 1998 and published on 5 March 1999.

The following interests are represented on Committee FT/8:

Australia New Zealand Food Authority
Australian Institute of Food Science and Technology
Consumers Federation of Australia
Department of Human Services (Victoria)
Food Science Australia
Food Technology Association of Victoria
N.S.W. Health Department
Packaging Council of Australia
Pigment Ecological & Toxicological Technical Committee of Australia
Plastics and Chemicals Industries Association
Queensland Health
University of New South Wales

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**Plastics materials for food
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Originated, in part, as part of AS 2070.1—1977.
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AS 2070.3—1992, AS 2070.4—1992, AS 2070.5—1992,
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AS 2171—1992.
AS 2070.1—1992, AS 2070.2—1992, AS 2070.3—1992,
AS 2070.4—1992, AS 2070.5—1992, AS 2070.6—1995,
AS 2070.7—1992, AS 2070.8—1992 and AS 2171—1992 revised,
amalgamated and redesignated AS 2070—1999.

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee FT/8, Plastics for Food Contact. This Standard supersedes AS 2070, *Plastics materials for food contact use*, Parts 1 to 5, 7 and 8, published in 1992, Part 6, published in 1995, and AS 2171—1992, *Guide to manufacture of plastics items for food contact applications*.

This Standard is the result of a consensus among representatives of the Joint Committee to produce it as an Australian Standard.

The objective of this revision is—

- (a) to harmonize with the international Standards; US FDA Regulations and EEC Directives;
- (b) to simplify the AS 2070—1992 series on plastics materials for food contact use;
- (c) to take into account all other plastics materials used in food contact use which have not been covered in the AS 2070—1992 series; and
- (d) to recommend and to establish the references of international Standards for use in Australia.

To achieve these objectives, the Committee recommended that the revision be based on the previous edition of AS 2171. The revision is issued with the AS 2070 Standard number and main title because it covers not only guidance to the manufacture of plastics items for food contact applications but also references to performance-based Standards specifications given in the US FDA Regulations and EEC Directives, and due to the fact that the community is more familiar with the Standard number 'AS 2070' and the title 'Plastics materials for food contact use'.

This Standard is intended to apply to the manufacture of the plastics materials (resins, granules and powders) and colorants for food contact use and describes procedures to be followed during the various stages of processing by manufacturers of plastics items for food contact.

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FOREWORD

In the manufacture of plastics items for food contact use it is essential to use only raw materials that are formulated to specifications suitable for food use or that are known to be safe for contact with food. Correct segregation and identification of all raw materials received from suppliers is necessary. The manufacture of plastics items requires the control of additives, correct use of raw materials (including rework materials) and processing aids, prevention of contamination within the machinery being used, factory hygiene and the identification of finished plastics items.

STANDARDS AUSTRALIA

Australian Standard

Plastics materials for food contact use

1 SCOPE This Standard specifies materials and the procedures for use during the various stages of production of plastics materials, coating and printing of plastics items for food contact and subsequent use. This includes such items as packages, domestic containers, wrapping materials, utensils or any other plastics items intended for food contact applications.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1886 Glossary of terms relating to plastics

The Australia New Zealand Food Standards Code

US FDA United States Food and Drugs Administration
21CFR Parts 170–199: US Code of Federal Regulations

EC European Commission Directives

82/711/EEC Directive laying down the basic rules necessary for testing the migration of the constituents of plastics materials and articles intended to come into contact with foodstuffs.

85/572/EEC Directive laying down the list of simulants to be used for testing of migration of constituents of plastics materials and articles intended to come into contact with foodstuffs.

89/109/EEC Directive relating to materials and articles intended to come into contact with foodstuffs.

90/128/EEC Directive relating to plastics materials and articles intended to come into contact with foodstuffs.

92/39/EEC Directive amending Directive 90/128/EEC

93/9/EEC Directive amending Directive 90/128/EEC

93/8/EEC Directive amending Directive 82/711/EEC

95/3/EC Directive amending Directive 90/128/EEC

96/11/EC Directive amending Directive 90/128/EEC

Council of Europe Resolution

AP(89)1 Resolution on the use of colourants in plastics materials coming into contact with food

NOTES:

1 All international documents can be viewed at Standards Australia offices in Sydney and Melbourne. Except for AP(89)1, the documents may be purchased from Standards Australia International Sales Centre.

2 US Code of Federal Regulations are obtainable from:

Superintendent of Documents
Government Printing office
Washington DC 20402-9371 USA

Available on Internet at <http://www.access.gpo.gov/narc/cfr/cfr-table-search.html>

3 EC Directives are obtainable from:

Hunter Publications	The Stationery Centre
58A Gipps Street	51 Nine Elms Lane
COLLINGWOOD VIC 3066	London SW8
Australia	United Kingdom
Tel. (03) 9417 5361	Tel. 44 171 873 9090
Fax. (03) 9419 7154	Fax. 44 171 873 8463

3 DEFINITIONS For the purpose of this Standard the definitions given in AS 1886 and those below apply.

3.1 Authorized person—a person who has been formally delegated with sufficient responsibility and authority by senior management of the manufacturer concerned to ensure compliance with the requirements of this Standard.

3.2 Manufacturer—an organization that carries out any number of the processes required to make plastics items for food contact use.

3.3 Rework material—plastics materials intended for reprocessing.

4 GENERAL REQUIREMENTS FOR NEW PLASTICS MATERIALS AND REWORK MATERIALS

4.1 New materials

4.1.1 *New plastics materials* New plastics materials used in the manufacture of plastics items for food contact use shall comply with either of the following:

- (a) The relevant regulations of the United States of America Food and Drugs Administration as set out in the Code of Federal Regulations 21CFR Parts 170 to 199 and any subsequent amendments or revisions.
- (b) The relevant European Commission directives for materials and articles intended to come into contact with foodstuffs as set out by Commission Directives 89/109/EEC (Framework Directive) and 90/128/EEC and their subsequent amendments or revisions, including 82/711/EEC and 85/572/EEC.

In addition, the use of plastics materials for food contact shall be in accordance with any relevant requirements set out in the *Australia New Zealand Food Standards Code* developed by ANZFA.

4.1.2 *Colourants* Colourants used in plastics materials for food contact use shall comply with the Council of Europe Resolution AP(89) 1, *Resolution on the use of colourants in plastics materials coming into contact with food* and with any subsequent amendments or revisions.

4.2 Rework materials

4.2.1 *Source* Rework materials used in the manufacture of plastics items for food contact use shall be prepared from plastics items that have not been used or printed and have been manufactured in compliance with this Standard from plastics materials prescribed in Clauses 4.1.1 and 4.1.2. Post-consumer recycled material shall not be used in direct contact with food.

4.2.2 *In-plant recycling* A manufacturer may use rework material that has been generated within the manufacturer's own plant, provided that such material after recycling complies with Clause 4.2.1.

4.2.3 *Contract recycling* A manufacturer may use rework material that has been processed outside the manufacturer's own plant, provided that only original material is processed and returned. Such material shall not be contaminated with any other plastics materials from any other source.

The manufacturer shall ensure that such recycled materials comply with this Clause and with Clause 4.2.1.

NOTE: Attention is specifically drawn to Clauses 9.1 and 9.2 as it is possible that various additives may be incorporated into the rework material during processing.

5 IDENTIFICATION AND ACCEPTANCE OF NEW PLASTICS MATERIALS

5.1 Identification The manufacturer shall ensure that new plastics materials are of the correct grade and are correctly labelled for food contact use.

5.2 Acceptance Plastics materials identified as prescribed in Clause 5.1 shall be accepted only in clean, closed, original containers.

NOTE: This requirement is not intended to prohibit the use of tankers or other means of making bulk deliveries.

6 IDENTIFICATION AND ACCEPTANCE OF REWORK MATERIALS

6.1 Identification The manufacturer shall ensure that rework materials are of the correct grade and are clearly and correctly labelled.

6.2 Acceptance Rework materials identified as prescribed in Clause 6.1 shall be accepted by the manufacturer only in closed containers. The manufacturer shall ensure that copies of the appropriate records containing details of the history of such rework materials are maintained by an authorized person.

7 SELECTION OF REWORK MATERIALS Rework materials to be used in the manufacturer of food contact plastics items shall be selected by an authorized person. Only those rework materials that comply with Clause 4.2 should be selected.

8 STORAGE AND CONTROL

8.1 Storage Plastics materials and rework materials intended for food contact use shall be stored separately from other materials in closed, properly identified containers.

8.2 Control An authorized person shall supervise and control the issue of plastics materials and rework materials to the process or manufacturing area and shall maintain appropriate records of the issue of such materials to ensure traceability.

9 PROCESSING AIDS, ADDITIVES AND COLOURANTS

9.1 Processing aids and additives Any post additions of processing aids and additives used in the manufacture of plastics materials for food contact shall meet the requirements of Clause 4.1.1.

9.2 Colourants Colourants shall comply with the requirements of Clause 4.1.2.

9.3 Records Records of the amount of additives and colourants that are used at all stages of manufacture shall be maintained by an authorized person to ensure traceability.

10 PRINTING INKS AND COATINGS

10.1 Printing inks Printing inks should not be placed on any part of a plastics item that normally comes into contact with foodstuffs. If such contact is unavoidable the printing ink shall meet the requirements of the Australia New Zealand Food Standards Code.

10.2 Coatings materials Coating materials shall comply with the relevant regulations of the United States of America Food and Drugs Administration or the European Union directives as per Clause 4.1.1 or be approved by ANZFA for use with food.

11 MANUFACTURE OF MULTILAYER PRODUCTS All materials, plastics or otherwise, used in the manufacture of multilayer products should comply with Clause 4.1, where applicable.

12 FACTORY HYGIENE Adequate standards of hygiene shall be maintained at all times, and plant operators and storeworkers shall be trained in proper hygiene practices.

NOTE: Plastics food contact items are not normally sterilized before use.

13 PRODUCTION REQUIREMENTS

13.1 Segregation and identification of equipment Equipment used to hold, transfer and blend plastics materials, rework materials, additives and processing aids, shall be segregated from other equipment and identified by means of suitable labelling.

13.2 Cleanliness of equipment Equipment used to hold, transfer, blend or otherwise process plastics materials, rework materials, additives and processing aids shall be adequately cleaned before use.

13.3 Compressed air Compressed air or other gases that come into contact with plastics items for food contact during their manufacture shall not be contaminated.

13.4 Machine purging Before commencement of a production run, the machinery to be used shall be adequately purged with food-contact-grade plastics materials. The materials used to purge the machine shall not be used for further food contact applications.

13.5 Inspection An authorized person shall ensure that only those plastics materials rework materials, additives and processing aids that have been specified are used and that no other contaminating materials are present.

14 PACKAGING OF FINISHED ITEMS Plastics items for food contact shall be packaged in such a manner as to ensure that the items do not become contaminated during storage.

15 STORAGE OF FINISHED ITEMS Plastics items for food contact shall be stored away from all sources of contamination. Possible sources of contamination include dust, rainwater, animals, insects and waste food.

16 IDENTIFICATION OF PLASTICS ITEMS Manufacturers of plastics items produced in accordance with this Standard shall ensure that such items can be identified as being suitable for food contact applications.