

## **The Australian Ecolabel Program**

### **Good Environmental Choice Australia Standard**

# **Recycled Plastic Products**



ISSUED BY GOOD ENVIRONMENTAL CHOICE AUSTRALIA LTD  
PO BOX 4140, WESTON CREEK ACT 2611  
PHONE: +61 (02) 6287 3100  
FAX: +61 (02) 6287 3800  
E-MAIL: [OFFICE@GECA.ORG.AU](mailto:OFFICE@GECA.ORG.AU)

## Use of This Standard

This voluntary environmental labelling standard may be used by competent environmental assessors to establish product compliance to the Australian Ecolabel Program. Products that are certified with the mark of conformity, the “Good Environmental Choice Label” have been independently tested and demonstrate compliance to the environmental and social performance criteria detailed in this standard. The overall goal of environmental labels and declarations is the communication of verifiable and accurate information, which is not misleading, on environmental aspects of products and services. This encourages the demand for, and supply of, those products and services that cause less stress on the environment, thereby stimulating the potential for market-driven continuous environmental improvement.

This standard identifies environmental, quality, regulatory and social performance criteria that products sold on the Australian market can meet in order to be considered as good “environment practice”. Products that have been certified as complying to this standard may gain greater market recognition and a marketing advantage in government and business procurement programs, as well as broad consumer preference.

This standard can be used by Australian producers to guide their designs for environment programs by using the environmental criteria as key performance benchmarks to reduce the environmental loads of their product. The standard is necessarily restricted in its identification of environmental loads from the product life-cycle. Producers should consider other environmental measures along the product cycle, which are not included in this standard, in their environment program designs for and aim for even higher levels of environmental performance where technically possible.

For further information please contact:

Good Environmental Choice Australia Ltd  
Standards Review and Development  
Ph: +61 (2) 6287 3100  
E-mail: [standards@geca.org.au](mailto:standards@geca.org.au)

This document may be copied only in its entirety and without any type of change. Quotations may be made provided that Good Environmental Choice Australia Ltd is stated as the source. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Good Environmental Choice Australia Ltd  
PO Box 4140, Weston Creek ACT, 2611, Australia.  
Printed in Australia

**CONTENTS**

ABSTRACT.....4

DEFINITIONS.....4

1 INTRODUCTION.....5

1.1 PURPOSE.....5

1.2 BACKGROUND.....5

2 STANDARD CATEGORY SCOPE.....6

3 ENVIRONMENTAL PERFORMANCE CRITERIA.....7

3.1 FITNESS FOR PURPOSE.....7

3.2 MATERIAL REQUIREMENTS.....7

3.3 ENVIRONMENTAL INFORMATION.....8

3.4 HAZARDOUS SUBSTANCES.....8

3.5 PACKAGING REQUIREMENTS.....9

4 COMPLIANCE TO ENVIRONMENTAL REGULATIONS.....10

5 COMPLIANCE TO LABOUR, ANTI-DISCRIMINATION AND SAFETY REGULATIONS.....10

6 EVIDENCE OF CONFORMANCE.....11

6.1 AUDIT METHODOLOGY.....11

6.2 ASSESSOR COMPETENCY.....11

6.3 SUITABLE SOURCES.....11

6.4 LABORATORY TESTING.....11

---

## GOOD ENVIRONMENTAL CHOICE AUSTRALIA STANDARD

---

# Recycled Plastic Products

Current Status: Final Standard Version 3.1

Date Published: 1 May 2007

### Abstract

This Standard specifies environmental performance requirements of recycled plastic products for the Australian Ecolabel Program. The Australian Ecolabel Program complies with ISO 14024: "Environmental labels and declarations - Guiding principles" which requires environmental labelling specifications to include criteria that are objective, reasonable and verifiable.

### Definitions

**Label** means the Good Environmental Choice Australia Label.

**Recycled Content** includes:

**Post-Consumer:** Material generated by households, or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

**Pre-Consumer:** Material diverted from the waste stream during a manufacturing process. Excluded is re-utilisation of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it.

## **1 INTRODUCTION**

### **1.1 Purpose**

This Standard seeks to define good environmental performance benchmarks for recycled plastic products. The voluntary environmental labelling standard implemented by the Australian Environmental Labelling Association (GECA) specifies environmental performance criteria for a wide range of plastic products as defined in the product category scope. This standard stipulates the environmental load of such products throughout the major aspects of their life cycle.

### **1.2 Background**

Plastic is a core constituent of a large number of consumer and industrial products. Progress in the plastics industry has allowed the development of recycling systems for plastics with a comparatively lower level of environmental load compared to virgin materials. These recycled products have appropriate strength and performance characteristics making them suitable for their intended purpose.

The primary purpose of this standard is to define environmental performance criteria for products made from recycled plastic. Recycled plastic products are environmentally preferable because they reduce demand for virgin plastic materials and reduce the amount of waste going to landfill. The environmental loads of recycled plastic products compared to non recycled virgin plastic material are often reduced.

This standard specifies requirements for the minimum quantities of recycled plastic by weight in certified products. It also restricts certain other treatments or coatings that would restrict further recycling, and requires the use of resin codes to encourage further post-consumer recycling.

## 2 STANDARD CATEGORY SCOPE

This standard is applicable to the following categories of plastic products that are manufactured partially or fully from recycled plastic.

### 2.1 Construction and Road Materials.

This includes all materials used in the construction of structures, whether stationary or transportable, such as lumber, fencing, formwork, shingles or pavers.

### 2.2 Traffic Management Products.

Including signage, bollards, guide posts, car stops and speed humps.

### 2.3 Produce Containers.

Includes containers for agricultural produce such as eggs, fruit and vegetables.

### 2.4 Non-food Containers.

Includes all containers for non-food products such as detergent bottles, drums, recycling crates, mobile waste bins and pallets.

### 2.5 Office Supplies.

Includes all implements and containers for office use such as dispenser holders, transparency sheets and ring binders.

### 2.6 General household products.

Includes buckets, clothes pegs, coat hangers and cutlery trays, chopping boards.

### 2.7 Horticultural supplies.

Includes all products, containers, implements and support structures used in horticultural activities such as flower pots, trays, garden edging, wheel barrows and compost bins.

### 2.8 Flexible packaging and sheeting.

Includes plastic bags and sheets, geo-textiles, tree protectors.

### 2.9 Irrigation and agricultural equipment.

Includes stormwater pipes, pipes and associated equipment used for transporting low pressure fluids including irrigation pipes and drainage pits/covers.

### 2.10 Raw recycled plastic resin.

For use in further certified products.

Other products that do not fit the above categories may be considered for certification provided the product satisfies all relevant requirements.

### 3 ENVIRONMENTAL PERFORMANCE CRITERIA

#### 3.1 Fitness for Purpose

Certified products should be good performers in their intended application. The manufacturer of the product must ensure that the product is fit for its intended purpose and:

##### 3.1.1 Applicable Standards

The product meets or exceeds the requirements of the relevant Australian Standard, or the product meets the applicable and accepted standard in its target market if it is to be exported, or

##### 3.1.2 Demonstrated Performance

If there is no relevant Australian Standard, the product can demonstrate sufficient quality by providing testing reports from an independent organisation or case studies from installations demonstrating suitability and quality for the intended purpose of the product.

#### 3.2 Material Requirements

##### 3.2.1 Recycled Content

The quantity of recycled material must be significant in order to be recognised as being environmentally preferable to virgin materials. There are sometimes limitations to recycled content use due to strength and other requirements and the following levels have been set as minimum requirements for certification.

**Table 1:** Minimum recycled content requirements by category as outlined in the Scope.

| Category  | Recycled % w/w |
|-----------|----------------|
| 2.1 - 2.5 | 50             |
| 2.6 - 2.7 | 75             |
| 2.8       | 30             |
| 2.9       | 90             |
| 2.10      | 100            |

Note: Where a product contains components other than plastic (e.g., wheel barrow), the % requirement applies to the plastic component and the total weight of the plastic component only.

##### 3.2.2 Post Consumption Recycling, Coatings, Labels and Other Treatment.

###### 3.2.2.1 Recyclability and Product Stewardship

Certified products must be recyclable at the end of their normal life. For materials that cannot be recycled in mainstream recycling schemes, manufacturers of certified products must have an existing product stewardship offer to the market offering product take-back at end of life for the certified product range. Products that are taken back under such a program shall not be disposed of in landfill or by incineration.

Demonstration of an acceptable product stewardship program must include documentation outlining the proposed material flows for products collected at end of life and internal documentation confirming the establishment and function of a take-back research program where final disposal arrangements are not currently in place.

**3.2.2.2 Impregnations or coatings**

The recycled plastic product (or component) must not be impregnated, labelled, coated or otherwise treated in a manner which would prevent post consumer recycling. Exemption may be made for products with a long product life where a coating or treatment would further extend the useful life of the product.

**3.2.2.3 Separability**

Non-homogeneous certified products must be easily separable with common tools at the normal end of life to facilitate recycling of individual components.

**3.3 Environmental Information**

Certified recycled plastic products (or components) must be marked on each individual item with the appropriate plastics resin identification code promulgated by the Plastics and Chemical Industry Association. Exceptions to this criterion may be made for products in Category 2.8 – flexible sheeting.

Exemptions may be made for products where the nature of the manufacturing process or the size and shape of the product restrict the application of the plastics resin identification code on the product. Products exempted on this basis will ensure that appropriate information describing disposal methods for the product, including the relevant plastic resin identification code, will be provided at the time of sale to encourage further recycling.

**3.4 Hazardous Substances****3.4.1 Additives**

- a. If 1,3 butadiene is used in latex, rubber or foams its concentration shall be less than 1 mg / kg.
- b. The total amount of discharges ( measured as COD or TOC) from the production of foam rubber shall be treated and decreased by 90% in on-site or external sewage treatment works prior to emissions into waterways.

**3.4.2 Overall Loads**

In order to promote the reduction of pollutant hazards in the disposal, landfill and/or incineration of end of life furniture, the following substances shall not be added to eco-labelled products during manufacture:

- Arsenic
- Cadmium
- Chromium
- Copper
- Lead
- Mercury
- Tin (including organic tin catalysts or stabilizers)
- Fluorine
- Chlorine
- Pentachlorophenol (PCP)
- Tar oils (benzo (a) pyrene)

Organic tin catalysts may only be used in the production of flexible polyurethane if the manufacturer has in place a contract with a licensed and registered hazardous waste disposal company responsible for the correct disposal of the hazardous waste.

### **3.4.3 Prohibited Substances**

The following compounds, their functional derivatives or in-situ precursors shall not be added to finished products, their component parts or be used at any stage of the manufacturing process, including as preparatory agents, cleaners or degreasers in the production facility:

Halogenated organic substances or solvents (e.g., binding agents, fluoropolymer additives, CFC, HCFC, HFC, Methylene Chloride).

Aniline based amines.

The phthalates DEHP, DBP, DAP or BBP.

Aziridine or polyaziridines.

Polybrominated diphenyl ethers, or short-chain chlorinated organic flame retardants.

### **3.5 Packaging Requirements**

Chlorinated or halogenated plastics must not be used in product packaging.

Used packaging shall be able to be recycled by local recycling systems.

#### **4 COMPLIANCE TO ENVIRONMENTAL REGULATIONS**

The applicant is required to comply with relevant environmental legislation and government orders at the Local, State, and Commonwealth levels, if these have been issued. An applicant's compliance with these criteria may be established by undertaking a series of random checks; and/or by gathering samples of applicant operational procedures and documents from approved assessors as evidence to support compliance during the verification. Where an applicant is from an overseas jurisdiction, that jurisdiction's environmental regulations apply. Where the applicant is subject to a guilty verdict by a legally constituted court in the last 24 months on the basis of a breach of any environmental legislation or permits, there must be evidence of corrective action.

#### **5 COMPLIANCE TO LABOUR, ANTI-DISCRIMINATION AND SAFETY REGULATIONS**

An applicant shall demonstrate that all employees are covered by a Federal or State award or a certified industrial agreement or a registered workplace agreement as determined by the Industrial Relations Commission, the Employment Advocate or a State or Territory Workplace Relations Agency or a workplace agreement in compliance with Workplace Relations Act 1996 Part 7 – The Australian Fair Pay and Conditions Standard.

An applicant shall demonstrate general compliance to the terms of State or Territory Legislation concerning Occupational, Health and Safety and/or the *Commonwealth Safety, Rehabilitation and Compensation Act 1988*, where applicable. Where the applicant is subject to a breach order by a government agency, or a guilty verdict by an Australian Court within the last 24 months, on the basis of a breach of State, Territory or Commonwealth Occupational, Health and Safety Legislation, there must be evidence of corrective action.

The applicant shall demonstrate general compliance to the requirements of the Racial Discrimination Act 1975, Sex Discrimination Act 1984, Disability Discrimination Act 1992, Equal Opportunity for Women in the Workplace Act 1999, and complementary State Legislation. Applicants cannot be in the list of 'named' or non-compliant employers under the Equal Opportunity for Women in the Workplace Act 1999. Where the applicant is subject to a breach order by a government agency, or a guilty verdict by an Australian Court in the last 24 months on the basis of a breach of these Acts, there must be evidence of corrective action.

Where an applicant is from an overseas jurisdiction, the applicant shall demonstrate general compliance to that jurisdiction's anti-discrimination, occupational health and safety, and workers' compensations regulations. Where the applicant is subject to a breach order by a government agency, or a guilty verdict by a legal court in their respective country within the last 24 months on the basis of a the breach of anti-discrimination, occupational health and safety, and workers' compensation regulations, there must be evidence of corrective action.

An applicant's compliance with these criteria may be established by undertaking a series of random checks; gathering samples of applicant operational procedures and documents from approved assessors; and/or by providing a self-declaration document signed by an executive officer of the applicant organisation as evidence to support compliance during verification.

## **6 EVIDENCE OF CONFORMANCE**

### **6.1 Audit Methodology**

Conformance with this standard shall be demonstrated by undertaking an assessment under the above criteria by an approved assessor, following the certification and verification procedures detailed in the Good Environmental Choice Australia Ltd Documented Quality Management System, which generally follows the environmental auditing requirements of ISO 19 011.

### **6.2 Assessor Competency**

The Australian Ecolabel Program classifies approved assessors as:

- a. Assessors registered by Good Environmental Choice Australia Ltd as environmental professionals that hold expertise relevant for an assessment, and who have undertaken training in the procedures of the Australian Ecolabel Program; or
- b. Environmental auditors accredited with the RABQSA.

### **6.3 Suitable Sources**

Audit evidence should be of such a quality and quantity that competent environmental auditors, working independently of each other, will reach similar audit findings from evaluation of the same audit evidence against the same audit criteria.

Suitable sources of information to establish compliance may be, but are not limited to:

- a. Technical specification of the product.
- b. Obvious characteristics of the product under examination.
- c. Scientific test results and reports.
- d. Environmental management system and audit reports and results.
- e. Life-cycle assessment of each stage of the product life-cycle via a physical audit and examination.
- f. Life-cycle assessment via scientific testing.
- g. A statement of confirmation by an executive officer.
- h. An assessment of company or government records.
- i. Other material that can be considered objective evidence.

### **6.4 Laboratory Testing**

New testing shall be undertaken by a laboratory accredited by the National Association of Testing Authorities (NATA), or similar overseas accreditation agents who can conduct the relevant tests and/or provide documentation detailing environmental performance against the criteria of this standard. The test results should be presented on NATA-endorsed reports or from a laboratory acceptable to Good Environmental Choice Australia Ltd.

If test results or environmental auditing results are not available, and/or there is insufficient data to establish full compliance with the criteria required by this standard, then certification cannot be awarded.