



# **Green Label Product Plastic Packaging (TGL-105-15)**

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## TGL-105-15

### Plastic Packaging

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#### 1 Background

Plastics have various properties such as modifiability, durability, and shock and chemical resistance. Moreover, they are easily molded and manufactured, and low cost. As a result, plastics are used in different industries, packaging industry in particular. However, plastic manufacturing requires fossil fuel, and causing climate change. Therefore, recycled plastic packaging is promoted to reduce fossil fuel consumption and plastic wastes.

For this reason, Green Label: Thailand had come up with a certification for plastic packaging aiming to reduce its environmental impacts. Ultimately, certified products should be able to reduce the waste disposal burden and prevent hazardous substances.

#### 2 Scope

This criterion covers only plastic packaging for use (directly food contact is excluding).

#### 3 Definitions

- 3.1 **Plastic packaging** refers to packaging that is made of plastic for the purpose of package, prevent, and preserve the product to remain, conveniently transport, and facilitate marketing purposes and usage.
- 3.2 **Recycled plastic** refers to plastic that is made of post-consumer plastic or post-industrial waste that was not contaminated with poisonous or hazardous substances.
- 3.3 **Post-consumer plastic** refers to plastic materials generated by households, or by commercial, industrial and institutional facilities as end-users of the product, in which they can no longer be used for their previous intended purposes. This includes returns of material from the distribution chain.
- 3.4 **Post-industrial waste** refers to waste or waste generated during manufacturing or processing processes in the factory before reaching the consumer. Products that are damaged inside the factory are excluded from this definition.
- 3.5 **Letter for declaration of compliance** refers to a document issued by the applicant or manufacturers to ensure environmental requirements' compliance for respective products.

- 3.6 **Certificate** refers to a document issued by a certification body, which has been accredited by the Nation Accreditation Council (NAC) or International Accreditation Forum (IAF).
- 3.7 **Authorized director** refers to the person who has been authorized to sign on the behalf of a juristic person under Civil and Commercial code.

#### 4 General requirements

- 4.1 The product shall be certified or passed the quality specification test from relevant Thai Industrial Standard, or international standards, or equivalent national standards.

##### **Verification method**

The applicant shall submit the license to display industrial standard mark or test results according to the specific requirements from the industrial standard related to the product or test results according to equivalent national standards.

- 4.2 Manufacturing, transportation and post-industrials waste disposal shall comply with the national laws and regulations, or the manufacturer shall be accredited by ISO 14001.

##### **Verification method**

The applicant shall submit documents or evidence to prove that the production, and waste transportation and disposal follow the laws and regulations of the government, or manufacturer's ISO 14001 certification.

#### 5 Environmental requirements

- 5.1 The concentration of heavy metals such as mercury, lead, cadmium, and hexavalent chromium are not allowed more than 100 mg/kg of the total weight.

##### **Verification method**

The applicant shall submit test reports for products' heavy metal concentrations according to IEC 62321 or equivalent national standards (ASTM, JIS) or regional standards (EN) or international standards.

- 5.2 The following additives shall not be added in the manufacturing process.

- 5.2.1 Heavy metal such as copper, arsenic
- 5.2.2 Halogenated organic substances and halogenated organic solvents such as fluoropolymer additives CFC HCFC HFC methylene chloride
- 5.2.3 1,3-butadiene shall not more than 1 mg/kg
- 5.2.4 PBB (polybrominated biphenyl) shall not be added more than 1,000 mg/kg in homogeneous materials

- 5.2.5 PBDE (polybrominateddiphenyl ether) shall not be added more than 1,000 mg/kg in homogeneous materials
- 5.2.6 Chloroparaffins (C=10~13) whose chlorine concentration is 50% or more
- 5.2.7 Polyurethane foam made from blowing agent with CFC, HCFC and HFC
- 5.2.8 Substances specified in Regulation (EC) No 1272/2008 as follows:
- 1) H350 (may cause cancer)
  - 2) H340 (may cause genetic defects)
  - 3) H372 (causes damage to organs through prolonged or repeated exposure)
  - 4) H373 (may cause damage to organs through prolonged or repeated exposure)
  - 5) H360 (may damage the unborn child)
  - 6) H361d (suspected of damaging the unborn child)
  - 7) H341 (suspected of causing genetic defects)

**Verification method**

The applicant shall submit the letter of declaration for compliance notifying that did not use prohibited additives in the manufacturing process as defined in 5.2. The document shall be stamped with the company hallmark and signed by authorized personnel.

- 5.3 The product shall meet one of the following criteria:
- 5.3.1 The product shall reduce the use of virgin plastic at least 20% by weight.
  - 5.3.2 The product shall have a mixture of recycled plastic and/or post-industrial waste as follows.
    - 1) Rigid plastic packaging shall meet one of the following criteria.
      - 1.1) The product shall contain at least 30% by weight of recycled plastic content.
      - 1.2) The product shall contain at least 40% by weight of post-industrial waste.
      - 1.3) The product shall contain at least 35% by weight of recycled plastic and post-industrial waste.
    - 2) Soft plastic packaging and film shall contain recycled plastic and/or post-industrial waste according to Table 1.

**Table 1** Proportion of recycled plastic and / or post-industrial waste for soft and film products

Type of product	Proportion (% by weight of product)
Plastic shopping bag	≥ 50
Big bag	≥ 20
Woven sack	≥ 30
Film	≥ 30
others	≥ 30

**Verification method**

The applicant shall submit letter of declaration for compliance that the type and quantity of the composition are used in the manufacturing process as according in 5.3. The document shall be stamped with the company hallmark and signed by authorized personnel.

- 5.4 The product shall be symbolized according to Thai Industrial Standard, TIS 1310 for recycling plastics or be marked according to plastic symbols and abbreviated terms given in ISO 1043 or ISO 11469 on packaging or product.

**Verification method**

The applicant shall submit a declaration letter indicating that the product has been symbolized according to Thai Industrial Standard, TIS 1310 for recycling plastics or marked according to plastic symbols and abbreviated terms given in ISO 1043 or ISO 11469. The document shall be stamped with the company hallmark and signed by authorized personnel of the packaging manufacturer.

## 5.5 Gathering package

- 5.5.1 Paper packaging shall contain recycled pulp at least 60% by weight.

**Verification method**

The applicant shall submit letter of declaration for compliance that the paper packaging is made from recycled pulp  $\geq 60\%$ . The document shall be stamped with the company hallmark and signed by authorized personnel of the packaging manufacturer.

- 5.5.2 Plastic packaging shall contain recycled plastic at least 20% by weight and shall be symbolized according to Thai Industrial Standard, TIS 1310 for recycling plastics or be marked according to plastic symbols and abbreviated terms given in ISO 1043 or ISO 11469.

**Verification method**

The applicant shall submit the letter of declaration for compliance that the plastic packaging is made from recycled plastic  $\geq 20\%$  and a declaration letter indicating that the plastic packaging has been symbolized according to Thai Industrial Standard, TIS 1310 for recycling plastics or marked according to plastic symbols and abbreviated terms given in ISO 1043 or ISO 11469 and submit a photo of plastic packaging that shows the existence of plastic identification for inspection. The document shall be stamped with the company hallmark and signed by authorized personnel of the packaging manufacturer.

- 5.5.3 Inks, paints or pigments used for printing on the packaging or labeling on the packaging are allowed to have concentrations of mercury, lead, cadmium and hexavalent chromium not exceeding 0.01% (100 mg/kg) by weight due to impurity and contamination.

**Verification method**

The applicant shall submit either of the following evidences;

1. A declaration letter together with test reports for mercury, lead, cadmium and hexavalent chromium concentrations, issued by ink, paint or pigment manufacturer.
2. Test reports for mercury, lead, cadmium and hexavalent chromium concentrations using test method as following;
  - 2.1 Mercury concentration, test according to ISO 3856-7 or ASTM D 3624 or IEC 62321 or equivalent standards
  - 2.2 Lead concentration, test according to ISO 3856-1 or ISO 6503 or ASTM D 3335 or IEC 62321 or equivalent standards
  - 2.3 Cadmium concentration, test according to ISO 3856-4 or ASTM D 3335 or IEC 62321 or equivalent standards
  - 2.4 Hexavalent chromium concentration, test according to ISO 3856-5 or IEC 62321 or equivalent standards

## 6. Testing and certification

### 6.1 Testing

6.1.1 The laboratory shall be operated by the government or under governmental control as defined by clause 5 of the Industrial Standard Act B.E. 2511 (and its addenda) or certified by TIS 17025<sup>1</sup> or ISO 17025<sup>2</sup>.

#### 6.1.2 Test results

6.1.2.1 Test results shall comply with testing methods defined in this document.

6.1.2.2 If “comparable test methods” are submitted, the following documents shall be submitted with the test results:

(1) Declaration letter from the laboratory verifying that the test methods are comparable to the methods defined in this document.

(2) Method validation documents which enable unequivocal scientific verification that the testing methods and requirements defined in this document have been met.

6.1.2.3 Test results shall have been issued no more than 1 year following the application date.

### 6.2 Declaration letter to verify compliance with Green Label requirements

6.2.1 Shall have been issued no more than 1 year following the application date.

6.2.2 Shall be signed by the authorized directors and have the company seal affixed (if relevant).

<sup>1</sup>TIS 17025 General Requirements for the Competence of Testing and Calibration Laboratories.

<sup>2</sup>ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories.