



Green Label Product Concrete pipe (TGL-126-24)

**Revision Approved On
02 October 2024**

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Green Label Product
Concrete pipe
(TGL-126-24)

1. Background

Concrete pipes are products that use cement as a primary component. They may be contaminated by chemicals used during the production process and are impacted by the use of raw materials, energy, water, and the generation of dust, smoke, and waste from the installation and dismantling of concrete pipes. These activities often release large amounts of dust into the atmosphere. If there is no control over the dismantling process, the management of waste after use may lead to issues with debris resulting from broken or damaged concrete pipes during the removal process.

Therefore, the development of Green Label requirements for concrete pipe products focuses on reducing the use of chemicals, minimizing air pollution such as dust during the dismantling process, and promoting recycling to reduce resource consumption.

2. Scope

This criteria covers concrete pipes

3. Definitions

- 3.1 Precast reinforced concrete pipes:** Reinforced concrete pipes used for drainage and water conveyance purposes.
- 3.2 Non-reinforced concrete pipes for drainage purposes:** Non-reinforced concrete pipes used for drainage purposes.
- 3.3 Post-consumer waste:** Products that are waste or have been used.
- 3.4 Post-industrial waste:** Waste materials or by-products generated during the manufacturing or processing within the factory before reaching the consumer.

- 3.5 Letter for Declaration of Compliance:** A certification document issued by the applicant or manufacturer confirming compliance with the special requirements specified in the Green Label criteria for the product being applied for.
- 3.6 Certificate:** A document issued by a Certification Body accredited by the Office of the National Standardization Council (ONSC) or an Accreditation Body under the mutual recognition agreements of the International Accreditation Forum (IAF).
- 3.7 Legally Authorized person:** A person authorized to sign under the Civil and Commercial Law.

4. General requirements

- 4.1 The product must be certified according to the relevant industrial product standards for the product being applied for certification, **or** it must pass the required performance testing in accordance with the relevant industrial product standards as listed in Table 1, or comply with international standards (ISO) or national standards such as ASTM, JIS, DIN, EN.

Table 1: Relevant Industrial Product Standards

Standard No. TIS	Title of the Industrial Product Standard
TIS. 128	Precast reinforced concrete pipes for drainage purposes.
TIS. 224	Non-reinforced concrete pipes for drainage purposes.
TIS. 1012	Reinforced concrete pipes for water conveyance purposes.
TIS. 1164	Precast reinforced concrete square pipes for sidewalk drainage, with backfill material not exceeding 3.0 meters.
TIS. 1165	Precast reinforced concrete square pipes for drainage under roadways, with backfill material less than 0.6 meters.
TIS. 1166	Precast reinforced concrete square pipes for drainage under roadways, with backfill material ranging from 0.6 meters to 3.0 meters.

Verification method

The applicants shall submit a license to display the relevant industrial product standard mark for the product being applied for certification **or** test results for the required characteristics according to the relevant industrial product standards, **or** international standards (ISO) or national standards such as ASTM JIS DIN EN.

- 4.2 Manufacturing, transportation and post-industrial waste disposal shall comply with national laws and regulations **or** the manufacturer shall be accredited by ISO14001.

Verification method

The applicant shall submit one of the following documents:

1. License or evidences to prove that manufacturing, transportation, and post-industrial waste disposal complies with national laws and regulations. **or**
2. Certification of ISO 14001 from the manufacturer

Remark: In case of imported products, the factory must be certified with ISO 9001 (Quality Management System) and ISO 14001 (Environmental Management System).

5. Environmental Requirement

- 5.1 The cement used in the production of concrete pipes must be hydraulic cement that is Green Label certified or complies with the Green Label requirements for cement and cement products (TGL-99).

Verification method

The applicants shall submit one of the following documents:

1. License for the Green Label for cement and cement products, **or**
2. Certificate and test results according to the general requirements and special requirements of the Green Label standards for cement and cement products.

- 5.2 The product must contain post-consumer waste or post-industrial waste materials, or a combination of both, comprising at least 3% ¹by weight of the product.

¹ Information from the manufacturer.

Verification method

The applicants shall submit a certificate stating that the product complies with the special requirements of Clause 5.2, which is stamped with the official seal of the manufacturing company and signed by an authorized signatory as per the company's legal certification.

5.3 Raw materials shall not contain the following substances.

- Asbestos
- Phosphogypsum
- Formaldehyde
- Pentachlorophenol
- Carcinogenic substances listed in Group 2A and Group 2B (substances with sufficient evidence of carcinogenicity) by the International Agency for Research on Cancer (IARC), as well as those listed in additional notifications
- Prohibited substances classified as hazardous materials under Category 4.4 of the Hazardous Substance Act, B.E. 2535 (1992)

Verification method

The applicants shall submit a certificate stating that the product complies with the special requirements of Clause 5.4, which is stamped with the official seal of the manufacturing company and signed by an authorized signatory as per the company's legal certification.

6. Testing and certificate

6.1 Testing

6.1.1 The laboratory with the competence of testing and calibration by TIS 17025 Standard or ISO/IEC 17025 with the relevant scope or laboratories that comply with the criteria and conditions for laboratory registration (RR-203) will be accepted.

6.1.2 Test results

6.1.2.1 The testing report that the method specified in the Green Label requirements.

6.1.2.2 In case, the applicant submits the testing report with according to other test methods equivalent to the method specified in the green

label requirements, the applicant shall submit the document as follow;

- 1) The certified signature document of the apply product from the laboratory that equivalent with test method standard specified in the green label requirements
- 2) The validation of the method (Validation Method) used by the applicant to test the product, compared to the testing methods specified in the Green Label requirements

6.1.2.3 The test report must not be maore than 1 years up to the date of application for green label certificarion

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)