



**SLOVENSKI STANDARD**  
**oSIST prEN 16903:2024**  
**01-maj-2024**

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**Cevni sistemi iz polimernih materialov, ki so vkopani zunaj konstrukcije stavbe - Okoljske deklaracije za proizvode - Pravila za kategorije proizvodov, ki dopolnjujejo EN 15804**

Plastic piping systems buried outside the building structure - Environmental product declarations - Product Category rules complementary to EN 15804

Erdverlegte Kunststoff-Rohrleitungssysteme außerhalb von Gebäuden - Umweltproduktdeklarationen - Produktkategorieregeln entsprechend EN 15804

Systèmes de canalisations en plastique enterrés à l'extérieur de la structure du bâtiment - Déclarations environnementales des produits - Règles régissant les catégories de produits complémentaires de l'EN 15804

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English Version

Plastic piping systems buried outside the building  
structure - Environmental product declarations - Product  
Category rules complementary to EN 15804

Erdverlegte Kunststoff-Rohrleitungssysteme  
außerhalb von Gebäudestrukturen -  
Umweltproduktdeklarationen -  
Produktkategorieregeln die EN 15804 ergänzen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 155.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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## **European foreword**

This document (prEN 16903:2024) has been prepared by Technical Committee CEN/TC 155 “Plastics piping systems and ducting systems”, the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

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## prEN 16903:2024 (E)

### Introduction

The European standard EN 15804+A2 provides core product category rules for all construction products and services. It provides a structure to ensure that all Environmental Product Declarations (EPD) of construction products, construction services and construction processes are derived, verified and presented in a harmonized way.

This document, based on EN 15804+A2, specifies the Product Category Rules for Environmental Product Declarations (EPD) plastic piping systems buried outside the building structure and their main structural components.

An EPD communicates verifiable, accurate, non-misleading environmental information for products and their applications, thereby supporting scientifically based, fair choices and stimulating the potential for market-driven continuous environmental improvement.

The standardization process has taken place in accordance with EN ISO 14025. All common issues are covered horizontally for all product types in order to minimize vertical (branch specific) deviations.

EPD information is expressed in information modules, as specified in EN 15804+A2, which allow easy organization and expression of data packages throughout the life cycle of the plastic piping systems buried outside the building structure (constructions work). The approach requires that the underlying data should be consistent, reproducible and comparable.

The EPD is expressed in a form that allows aggregation (addition) to provide complete information for construction works. This document does not deal with aggregation at the construction work level nor does this document describes the rules for applying EPD in a construction work assessment.

The document deals with a set of quantifiable predetermined parameters defined in EN 15804+A2. Future revisions may incorporate additional predetermined parameters in line with the changes of EN 15804+A2.

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## 1 Scope

This document provides product category rules (PCR) for Type III environmental product declarations, as described in EN ISO 14025 and EN 15942, for plastic piping systems buried outside building structure and their main structural components, as specified by the list of product standards provided in Annex C.

Main structural components are:

- pipes;
- fittings (e.g. flange couplers, bends and reducers, valves and electrofusion fittings);
- manholes and inspection chambers (where applicable, e.g. for drains and sewers).

This document encompasses both pressure and non-pressure applications.

The intended function of the system considered is to convey fluids according to EN 476 (for sewers, drain and surface water); EN 805 (water supply), or EN 12007 (gas supply).

In case there is no application standard available, this document can also be used for other plastics piping systems such as cable conduits and surface water piping systems. This document specifies the rules for the product category of construction products as defined in and is intended to be used in conjunction with EN 15804+A2.

In addition to EN 15804+A2, this document specifies:

- the functional unit (consisting of pipes, fittings, manholes and inspection chambers and ancillary components) and declared unit (consisting of pipes and/or fittings and/or manholes and /or inspection chambers);
- the system boundaries and additional mandatory modules to be declared;
- the processes to be included in the installation phase;
- scenarios for module A4, A5;
- use conditions for the use phase (B modules);
- reference service life (RSL);
- end of life scenarios.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CEN/TS 1046, *Thermoplastics piping and ducting systems — Outside the building structures for gravity and pressurised systems — Trench installation*

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EN 15804:2012+A2:2019<sup>1</sup>, *Sustainability of construction works — Environmental product declarations — Core rules for the product category of construction products*

FprEN 15941, *Sustainability of construction works — Data quality for environmental assessment of products and construction work — Selection and use of data*

EN 15942, *Sustainability of construction works — Environmental product declarations — Communication format business-to-business*

EN ISO 14025, *Environmental labels and declarations — Type III environmental declarations — Principles and procedures (ISO 14025:2006)*

EN ISO 14044:2006, *Environmental management — Life cycle assessment — Requirements and guidelines (ISO 14044:2006)*

ISO 22057, *Sustainability in buildings and civil engineering works — Data templates for the use of environmental product declarations (EPDs) for construction products in building information modelling (BIM)*

EUROPEAN LIFE CYCLE DATA BASE. Available at: <http://eplca.jrc.ec.europa.eu/ELCD3/>

**3 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN 15804:2012+A2:2019 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

**3.1****nominal size****DN**

numerical designation of the size of a component, other than a component designated by thread size, which is approximately equal to the manufacturing dimension in mm

[SOURCE: EN 12201]

**3.2****nominal pressure****PN**

numerical designation used for reference purposes recited to the mechanical characteristics of the component of a piping system.

[SOURCE: EN 12201]

<sup>1</sup> As impacted by EN 15804:2012+A2:2019/AC:2021.

### 3.3

#### **ring stiffness class**

##### **SN**

numerical designation of the ring stiffness class of the pipe or fitting which is a convenient round number, indicating the minimum required ring stiffness of the pipe or stiffness of the fitting

[SOURCE: ISO 9969:2016]

### 3.4

#### **buried outside building structure**

for non pressure application outside building is defined as according to the “application area U” which is the area more than 1 m from the building to which the buried piping system is connected

## 4 Abbreviations

For the purposes of this document, the abbreviations given in EN 15804:2012+A2:2019 apply.

## 5 General aspects

### 5.1 Objective of the PCR for plastic piping systems buried outside the building structure

Shall be according to EN 15804+A2.

### 5.2 Types of EPD with respect to life cycle stages covered

The types of the EPDs that can be developed according to this document are listed below (Figure 1):

- cradle to gate with options, modules C1-C4 and module D (A1-A3, C, D and additional modules. The additional module that shall be declared is A4, A5 is optional). This type of EPD shall be based on a declared unit and applies for the main structural components listed in Clause 1;
- cradle to gate with options, modules C1-C4 and module D (A1-A3, C, D and additional modules. The additional module that shall be declared is A4, A5 and/or B1-B7 are optional.). This type of EPD shall be based on a functional unit or a declared unit. If B-modules and use scenario are not declared the EPD shall be based on a declared unit; see 6.3.5.4.2 for the definition of B-modules;
- cradle to grave and module D (A, B, C and D). This declaration shall be based on a functional or declared unit;
- cradle to gate (A1-A3). These stages are the minimum to be declared for all the main components that are exempt from declaring modules C and D, as specified in 5.2 of EN 15804:2012+A2:2019 and shall be based on a declared unit. This type of EPD is not allowed for products containing biogenic carbon.