
Digitalna izjava o lastnostih in skladnosti (DoPC) gradbenih proizvodov - Metodologija, splošne zahteve in merila za razvoj podatkovnih predlog

Digital declaration of performance and conformity (DoPC) of construction products - Methodology, general requirements and criteria to develop data templates

Digitale Leistungserklärung von Bauprodukten - Methodik, allgemeine Anforderungen und Kriterien für die Entwicklung von Datenvorlagen

Déclaration numérique de performance et de conformité (DoPC) des produits de construction - Méthodologie, exigences générales et critères pour l'élaboration de modèles de données

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**Digital declaration of performance and conformity (DoPC)
of construction products - Methodology, general
requirements and criteria to develop data templates**

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conformité (DoPC) des produits de construction -
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die Entwicklung von Datenvorlagen

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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prEN 18357 (E)**European foreword**

This document (prEN 18357:2026) has been prepared by Technical Committee CEN/TC 442 "Building Information Modelling (BIM)", the secretariat of which is held by Standards Norway.

This document is currently submitted to the CEN Enquiry.

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Introduction

Manufacturers of construction products covered by the European Regulation 2024/3110[1] on the marketing of construction products (CPR [1]) or economic operators who places such products on the market will issue a digital copy of the **declaration of performance and conformity (DoPC)**.

Whereas 38 of Regulation (EU) 2024/3110[1] states "an important prerequisite for machine-readable declarations is a standardized IT format, which is required for each harmonized technical specification". To ensure interoperability between product families, common criteria and requirements will be provided to product TCs. This document intends to define such criteria and requirements.

This document introduces a methodology, independent of data serialization syntax (e.g. XML or JSON), based on the following standards:

- [EN ISO 12006-3:2022 \[2\]](#): provides a framework for object-oriented information related to construction assets.
- [EN ISO 23386:2020 \[3\]](#): explains how to establish, maintain and distribute data dictionaries.
- [EN ISO 23387:2025 \[4\]](#): introduce new concepts on development and management of data dictionaries and data templates.
- [FprEN 18223:2026 \[5\]](#): explains how to structure contents of digital product passports.

This document enables compatibility with BIM standards developed by CEN/TC 442 and ISO/TC 59/SC 13. These standards include:

- [EN ISO 16739-1 \[6\]](#) *Industry Foundation Classes (IFC) for data sharing in the construction and facility management industries - Part 1: Data schema.*
- [EN 17549-2:2023 \[7\]](#) *Building information modelling – Information structure based on EN ISO 16739-1 to exchange data - Part 2: Configurable construction objects and requirements.*
- [EN 17632-1:2022 \[8\]](#) *Building information modelling (BIM) - Semantic modelling and linking (SML) - Part 1: Generic modelling patterns.*
- [EN ISO 7817-1:2024 \[9\]](#) *Building information modelling — Level of information need Part 1: Concepts and principles.*

This document also considers the project in CEN/TC 442 WG 7 *Building information modelling - Methodology to enable design and product standards to support digitalization through using standards developed by CEN/TC 442¹*. This document considers the *Smart CE* concept defined in [CWA 17316:2018 \[10\]](#) and [UNE 41316:2020 \[11\]](#). Additional examples for the proposed methodology will be prepared to facilitate the adoption of this document.

The DoPC will be integrated in the DPP of construction products.

NOTE 1 Article 75.2.a of Regulation (EU) 2024/3110[1] contains requirements that the CPR-DPP system to be compatible with, interoperable with and based upon the DPP established by Regulation (EU) 2024/1781[12], without compromising interoperability with BIM.

The DoPC includes predetermined environmental essential characteristics, and can refer to product environmental requirements.

NOTE 2 Regarding predetermined environmental essential characteristics, see Annex II of Regulation (EU) 2024/3110[1].

NOTE 3 Regarding product requirements, see Annex III.3 of Regulation (EU) 2024/3110[1].

¹ Working draft.

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Environmental information follow the same data structure as other properties in the DoPC. The predetermined environmental essential characteristics are generally life cycle assessment (LCA) indicators or impact categories defined in [EN 15804:2012 \[13\]](#). A BIM-compatible data template structure for this information is provided in [EN ISO 22057:2022 \[14\]](#), which can also be used to digitize generic LCA-data, providing useful information to be used in BIM and in building LCA tools. [EN ISO 22057:2022 \[14\]](#) applies to LCA-based environmental data calculated according to [ISO 21930:2017 \[15\]](#), [UNE-EN 15804:2012+A1:2014 \[16\]](#) and [EN 15804:2012 \[13\]](#).

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1 Scope

This document specifies a methodology, with general requirements and criteria, for the development of the data templates for the declaration of performance and conformity (DoPC) of construction products.

NOTE This document integrates a data template structure from [EN ISO 23387:2025 \[4\]](#) to be used for DoPC of construction products, together with a methodology for experts to develop domain specific data templates, following [EN ISO 23386:2020 \[3\]](#) and the standards from CEN/CLC/JTC 24.

[Annex A](#) provides guidance for the development of data templates for harmonized technical specifications (hTS) and European assessment documents (EAD), for product technical committees (TCs) and other stakeholders.

2 Normative references

The following referenced documents contain text which fully or in part is part of the requirements in the document. For dated references, only the edition cited applies. For undated references, the latest edition of the cited document applies (including amendments).

EN ISO 12006-3:2022, *Building construction - Organization of information about construction works - Part 3: Framework for object-oriented information (ISO 12006-3:2022)*

EN ISO 23386:2020, *Building information modelling and other digital processes used in construction - Methodology to describe, author and maintain properties in interconnected data dictionaries (ISO 23386:2020)*

EN ISO 23387:2025, *Building information modelling (BIM) - Data templates for objects used in the life cycle of assets (ISO 23387:2025)*

EN ISO 80000-1:2022, *Quantities and units - Part 1: General (ISO 80000-1:2022)*

EN ISO 80000-series, *Quantities and units (all parts)*

FprEN 18219:2026, *Digital product passport - Unique identifiers*

FprEN 18223:2026, *Digital Product Passport - System interoperability*

ISO 639:2023, *Code for individual languages and language groups*

ISO 8601-1:2019+A1:2023, *Date and time — Representations for information interchange — Part 1: Basic rules*

ISO 8601-1, *Date and time — Representations for information interchange — Part 1: Basic rules*

3 Terms and definitions

For the purposes of this document the following terms and definitions apply.

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

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

prEN 18357 (E)**3.1****digital declaration of performance and conformity**

digital DoPC

dDoPC

machine readable representation of the required content of a declaration of performance and conformity

3.2**data dictionary**

database that contains data point definitions and metadata about data points

[SOURCE: [ISO/IEC 2382:2015 \[17\]](#), 2121501, modified — The admitted term "information resource dictionary" has been removed, the words "data point definitions and" and "about data points" are added. The Notes to entry have been removed.]

3.3**unique identifier**

unique ID

UID

identifier which is guaranteed to be unique among all identifiers used for a specific purpose

EXAMPLE 1 Globally unique identifiers (GUID) or universally unique identifiers (UUID) are examples of unique identifiers generated by software systems.

EXAMPLE 2 Uniform resource identifiers (URI) or uniform resource locators (URL) are examples of unique identifiers.

[SOURCE: [ISO 29404:2015 \[18\]](#), 3.26, modified – The words "for those objects and" are removed. The Note to entry is removed. The abbreviated forms "Unique ID" and "UID" are added.]

3.4**uniform resource identifier**

URI

sequence of characters that identifies an abstract or physical resource with a syntax

Note 1 to entry: The sequence of characters is defined in IETF RFC 3986 [\[19\]](#).

[SOURCE: [ISO/IEC 2382-36:2019 \[20\]](#), 3.11.7]

3.5**declared data point**

data point

structured data object within a digital declaration of performance and conformity comprising a declared value, a data point or element identifier and a reference to a specific entry in a data dictionary from which the definition associated with the declared value can be retrieved

Note 1 to entry: The terms declared data point and key-value pair are sometimes used interchangeably.

Note 2 to entry: An entry in a data dictionary may be a *dictionary property* [\(3.9\)](#) or another data dictionary concept or entity which can be associated with a value.

3.6**data point definition**

structured data object containing metadata about a *dictionary property* [\(3.9\)](#) and possible relationships between the specific data dictionary entry for a declared data point and other entries in the data dictionary

3.7**object**

part of the perceivable or conceivable world

[SOURCE: [EN ISO 23387:2025 \[4\]](#), 3.4, modified - Article deleted from start of definition.]

3.8

property

defined characteristic suitable for the description and differentiation of an *object* (3.7)

EXAMPLE 1 Length, density or sound reduction index are examples of properties of objects where the property value represents a physical quantity.

EXAMPLE 2 Reaction to fire and compressive strength class are examples of properties of objects where the property value represents a feature of the object.

EXAMPLE 3 "Being red" is not an example of a property in this meaning.

Note 1 to entry: The term physical property is used in CEN/CENELEC Guide 36 in a broad sense referring to the property carrying the declared value of an essential characteristic of a construction product.

[SOURCE: ISO 22274:2013 [21], 3.25, modified - The words "the objects in a class" have been replaced with "an object". Examples are replaced. A note to entry is added.]

3.9

dictionary property

data dictionary representation of a *property* (3.8) containing the definition of the property as an expression that describes the property and differentiates it from other properties and references to other data dictionary entries such as reference document(s), physical quantity and dimension, unit(s) of measurement, and relationship(s) to other dictionary properties

3.10

data template

data structure used to describe the characteristics of *objects* (3.7)

[SOURCE: EN ISO 23387:2025 [4], 3.2]

3.11

declaration of performance and conformity template

DoPC template

data template (3.10) for *digital declaration of performance and conformity* (3.1) for a product category defined in a harmonized technical specification or European assessment document

3.12

subject property

data dictionary representation of a *data point definition* (3.6) as a dictionary subject that specifies one dictionary property whose value is associated with the subject, and a list of additional dictionary properties and filters specifying the context of the associated value

4 Abbreviations

For the purposes of this document, the following symbols and abbreviations apply:

BIM	Building information modelling
CEN	European Committee for Standardization
CPR	Construction Products Regulation (Regulation (EU) 2024/3110[1])
CLP	Classification, Labelling and Packaging Regulation (Regulation (EU) 1272/2008[22])
dDoPC	<i>Digital declaration of performance and conformity</i> (3.1)
DoPC	Declaration of performance and conformity
DPP	Digital product passport

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EAD	European assessment document
EPD	Environmental product declaration
hTS	harmonized technical specification
NANDO	New approach notified and designated organizations
TAB	Technical assessment body
UID	<i>Unique identifier</i> (3.3)
UUID	Universally UID

5 Declaration of performance and conformity**5.1 General**

[Clause 5](#) defines a data structure for the digitalization of the declaration of performance and conformity (DoPC) of construction products.

NOTE The data structure follows the model set out in Annex V of Regulation (EU) 2024/3110 on construction products [\[1\]](#).

Unique identifiers of organizations or products shall be in accordance with [FprEN 18219:2026](#), where possible.

References to standards in the DoPC shall be dated.

5.2 Structure of the DoPC**5.2.1 General information**

This group of elements shall contain the following information:

- a) *name of the manufacturer*: This element shall include a UID for the manufacturer, in accordance with [FprEN 18219:2026](#).
- b) *declaration code*: Unique (unequivocal) identification code (alphanumeric). This element shall be assigned by the manufacturer per product and, together with the UID of the manufacturer, can be considered globally unique.
- c) *version number*: Identification code (number) of the version issued. The versions can be used to include changes in the DoPC, for example the contact details of the manufacturer.
- d) *date of the version*: The date shall be in accordance with [ISO 8601-1](#), i.e. YYYY-MM-DD. As an example, 2025-07-21. If more than one version is issued on the same day, the time shall be included in Coordinated Universal Time (UTC).
- e) *language of the DoPC²*: The code for the language shall be in accordance with [ISO 639:2023](#) in lowercase, e.g. *nb* for Norwegian or *es* for Spanish. The language element applies to the text included in the DoPC. The technical content (e.g. values) shall be the same, regardless of the language used. Some languages can require the use of special characters (e.g. “ñ” or accents in Spanish). Therefore, the encoding used shall support the use of any character used in an official language of the European Union.

[8.5](#) and [Table A.3](#) provide provisions and examples for development of tables for this group of elements. [9.3](#) and [Table B.7](#) provide provisions for implementation of the tables in the data dictionary.

² This element is **not** part of the structure defined in Annex V of Regulation (EU) 2024/3110 [\[1\]](#)

5.2.2 Product description

This group of elements shall contain the following information:

- a) *unique identification code of the product type and, where available, the batch or serial number;*
- b) *product category as defined by harmonized technical specifications or European assessment documents;*
- c) *declared uses of the product, within the scope of the applicable harmonized technical specification or European assessment document;*
- d) *nominal dimensions or grading of the product;*
- e) *key parts of the product, where applicable;*
- f) *estimated average and minimum service life time for the declared use (durability);*
- g) *variants, if any, and their descriptions;*
- h) *in cases where the product has been previously installed in a construction work, the date and place of the latest deinstallation.*

The UID assigned for the unique identification code element shall be assigned in accordance with FprEN 18219:2026.

The product category should include a unique identification of the product category, for machine-interpretation purposes. This UID should be provided in the digitalization annex of the hTS or the EAD.

The declared uses should include a unique identification of each possible declared use, for machine-interpretation purposes. This UID should be provided in the digitalization annex of the hTS or the EAD.

The units and other relevant data for the nominal dimensions or grading of the product should be provided in the digitalization annex of the hTS or the EAD.

The hTS or the EAD should include criteria for the declaration of the key parts of the product. Where relevant, the parts should be identified with a UID, provided in the hTS or the EAD, to enhance machine-interpretability.

The service life should be declared in years, unless otherwise specified in the hTS or the EAD.

The variant(s) element includes the name of the variant(s) within the same product type, including their description. The variant(s) element can be repeated to include several variants.

The date and place of the latest deinstallation shall be in accordance with ISO 8601-1:2019+A1:2023, i.e. YYYY-MM-DD. The place of deinstallation should follow the same criteria as for the location of the manufacturing site defined in CEN/CLC/JTC 24 standards.

[8.5](#) and [Table A.3](#) provide provisions and examples for development of tables for this group of elements. [9.3](#) and [Table B.7](#) provide provisions for implementation of the tables in the data dictionary.

prEN 18357 (E)**5.2.3 Permalinks or data carriers as regards the following, unless the information is available in the digital product passport**

This group of elements shall contain the following information:

- a) *the manufacturer's product registrations in Union databases, if any*: This element shall include a unique identification code for the manufacturer in accordance with [FprEN 18219:2026](#).
- b) *information to be provided in relation to substances of concern, where applicable*: This element shall include reference (URI) to the document, where relevant, and information elements for H-, P-, EUH- and GHS-records, where relevant.
- c) *general product information, instructions for use and safety information*.

NOTE 1 Regarding URI references, Regulation (EC) No 1907/2006[23] concerning the registration, evaluation, authorisation and restriction of chemicals (REACH) and Regulation (EC) 1272/2008[22] concerning classification, labelling and packaging of chemicals (CLP) can apply.

NOTE 2 Regarding general product information, Annex IV of Regulation (EU) 2024/3110[1] can apply.

[8.5](#) and [Table A.5](#) provide provisions and examples for development of tables for this group of elements. [9.3](#) and [Table B.8](#) provide provisions for implementation of the tables in the data dictionary.

5.2.4 Manufacturer

This group of elements shall contain the following information:

- a) *name*: name of the manufacturer.
- b) *registered trade name*: Text field including the official trade name, if different from the element 'name' above.
- c) *registered place of business*: Main location, usually the headquarters, of the manufacturer.
- d) *postal address*: Address for official correspondence.
- e) *telephone*: The telephone number including the area code; e.g. +34 123456789.
- f) *email address*: Primary email for business communications.
- g) *website*: Official company website.

The name of the manufacturer can include a data carrier (e.g. a permalink) to the registration(s) in EU database(s).

[8.5](#) and [Table A.6](#) provide provisions and examples for development of tables for this group of elements. [9.3](#) and [Table B.9](#) provide provisions for implementation of the tables in the data dictionary.

5.2.5 Authorised representative, where applicable

This group of elements shall contain the following information:

- a) *name*: name of the authorised representative.
- b) *registered trade name*: text field including the official trade name, if different from the element 'name' above.
- c) *registered place of business*: main location, usually the headquarters, of the authorised representative.
- d) *postal address*: address for official correspondence.
- e) *telephone*: the telephone number including the area code; e.g. +34 123456789.
- f) *email address*: primary email for business communications.
- g) *website*: official company website

The name of the manufacturer can include a data carrier (e.g. a permalink) to the registration(s) in EU database(s).

[8.5](#) and [Table A.7](#) provide provisions and examples for development of tables for this group of elements. [9.3](#) and [Table B.9](#) provide provisions for implementation of the tables in the data dictionary.

5.2.6 Notified body or bodies, where applicable

This group of elements shall contain the following information:

- a) *name*: name of the notified body as registered in NANDO.
- b) *identification number*: This code shall be taken from NANDO, with the structure NB followed by the four-digit code, without any space. This element uniquely identifies the notified body.
- c) *registered trade name*, where available: text field including the official trade name, if different from the element 'name' above.
- d) *registered place of business*: main location, usually the headquarters, of the notified body.
- e) *postal address*: address for official correspondence.
- f) *telephone*: the telephone number including the area code; e.g. +34 123456789.
- g) *email address*: primary email for business communications.
- h) *website*: official company website.

[8.5](#) and [Table A.8](#) provide provisions and examples for development of tables for this group of elements. [9.3](#) and [Table B.9](#) provide provisions for implementation of the tables in the data dictionary.