



# ADDITIONAL MANDATORY RULES COMPLEMENTARY TO NBN/DTD B 08-001:2017

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EPD@ENVIRONMENT.BELGIUM.BE

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B-EPD PROGRAM OPERATOR  
**Federal Public Service of Health, Food Chain Safety and the  
Environment**

Victor Hortaplein 40 – bus 10, 1060 Brussels, Belgium

These rules are mandatory to be followed and shall be part of the verification.

## 1 GENERAL COMPLEMENTARY RULES

### 1.1 WHICH VERSION OF EN 15804?

For the B-EPD program you are currently free to choose one of the two current EN 15804 versions.

We draw your attention however that from 2021 on, TOTEM will only use B-EPD according to EN 15804+A2.

### 1.2 NBN/DTD B08-001 - §A3 MANDATORY LIFE CYCLE STAGES

Additionally to the NBN/DTD B08-001, module A5 is mandatory for in situ products. E.g. insulation products to be blown in a cavity wall.

All declared modules shall be representative for Belgium.

**ATTENTION** If you want your B-EPD to be integrated in [TOTEM](#), the building calculator of the Belgian regional authorities, you must check the next chapter on how Totem will deal with non declared modules.

### 1.3 NBN/DTD B08-001 - §A31 PARAMETERS DESCRIBING ADDITIONAL ENVIRONMENTAL IMPACTS

The NBN B08-001:2017 refers to the specifications in EN 15804 or, if lacking, to the Product Environmental Footprint of DG Environment.

#### **B-EPD according to EN 15804:A1**

The table below lays down which impact assessment models to be used.

TABLE 1 – B-EPD, mandatory additional impact categories.

Eco toxicity for aquatic freshwater		USEtox model (Rosenbaum et al, 2008) / The most recent version should be used.
Human toxicity (cancer effects)		USEtox model (Rosenbaum et al, 2008) / The most recent version should be used.
Human toxicity (non-cancer effects)		USEtox model (Rosenbaum et al, 2008) / The most recent version should be used.
Particulate matter		Riskpoll with Humbert update (2009) <i>(We also accept the more recent update of 2011)</i>
Resource depletion water		‘Water scarcity’ Swiss ecoscarcity model by Frischknecht (2008)

Land use & biodiversity	Soil organic matter (SOM) - transformation	Mila I canals (2007)
	Soil organic matter (SOM) - occupation	Mila I canals (2007)

**ATTENTION** If you want your B-EPD to be integrated in **TOTEM**, the building calculator of the belgian regional authorities, table 1 shall be complemented with table 2 below.

TABLE 2 – B-EPD, mandatory impact categories for use in Totem complementary to table 1.

Land use & biodiversity	Biodiversity due to land occupation	Kölner (2000) as used in eco-indicator 99
	Biodiversity due to land transformation	Kölner (2000) as used in eco-indicator 99
	Biodiversity due to land occupation <ul style="list-style-type: none"> <li>• Urban, industry</li> <li>• agricultural</li> <li>• forest</li> </ul>	Based on Kölner (2000) as used in eco-indicator 99, but with characterization factors set to 1.
	Biodiversity due to land transformation <ul style="list-style-type: none"> <li>• Tropical forrest</li> </ul>	These are the flows.
Ionizing radiation	Ionizing radiation, human health effects	Frischknecht based on Dreicer (2000)

These indicators can also be entered in the federal database and can be included in the B-EPD. They shall be part of the verification.

#### **B-EPD according to EN 15804:A2**

All indicators of EN 15804:A2 shall be declared: this implies that table 1 and table 2 above are replaced by the both core and additional impact categories of the EN 15804:A2.

#### 1.4 IMPORT OF IMPACT CATEGORIES IN SIMAPRO OR GABI

At the website ([www.b-epd.be](http://www.b-epd.be)) you can find a **.csv file for Simapro** and a **file for Gabi** with all indicators and characterization factors.

#### 1.5 ADDITIONAL GUIDANCE ON REPRESENTATIVITY

	Representativity of A123 for Belgium	Repr. A4 to D for Belgium
Manufacturer with all production sites in Belgium	The EPD/data shall be specific for these production sites and for the market share put on the Belgian market.	<p>The scenarios shall be specific for the products on the Belgian market.</p> <p>A4: transport to BE</p> <p>A5: installation in BE</p> <p>B: use phase in BE</p> <p>C: EOL in BE</p> <p>It is allowed to use the default scenarios of the NBN/DTD</p>
Collective EPD – all production sites in Belgium  (e.g. EPD established by a Belgian federation with only BE members)		
Manufacturer with production sites spread over Europe	A123 shall be specific for the products on the Belgian market.	The scenarios shall be specific for the products on the Belgian market.
Collective EPD –production sites are spread over Europe  (e.g. EPD established by a European federation)	The specificity of A123 for the Belgian market shall be investigated and motivation shall be given. This is also part of the verification. Important aspects may be technological representativity, energy mix, origin of resources, etcetera.	

The table above has as a consequence that for existing EPDs which are representative for Europe, it is not a mandatory rule to limit the specific data to those production sites in Belgium, nor is there an obligation that Belgian production sites have contributed specific data. It is however mandatory that the specificity is thoroughly researched and verified. E.g. if a technology is used which is common practice in Europe but not in Belgium, this will not be accepted for a B-EPD.

#### 1.6 USE OF COLLECTIVE EPDS

- a. **A manufacturer specific EPD** shall be based on specific data from his production processes (as stated in the EN 15804).

- b. **A collective EPD at Belgian level with Belgian members** cannot put its name on a European collective EPD unless an LCA expert has investigated the representativity for a B-EPD and the other requirements for a B-EPD. This has to be verified in the light of a B-EPD.

## 1.7 A5

Until further clarification is given, it is not mandatory to declare the ancillary materials necessary for installation. It shall however be clearly stated

- whether or not they are included in the declared environmental impact.
- What the ancillary materials are
- Whether it concerns materials for fixation, jointing, first treatment, processes, ...
- If multiple scenarios for installing are possible (e.g. screwless, with screws, glued, ...).
- If any materials for installation are needed for certain applications of the product but of which the environmental impact is not included in the EPD. This text shall be added: *Other options for installing the product are possible for which the environmental impact has not been included in this EPD.* These options shall be listed.
- whether the scope of the product is “as produced” or “as installed”.
- if it concerns kits including fixation materials where it shall be very clear in what module the impacts are declared.

Some sample text to be included in the B-EPD:

### For as installed:

“Materials for fixation and installation are included. This EPD includes the impacts of all processes, fixing materials, jointing material or treatments necessary for installing/mounting the product according to following scenario(s).” These options shall be listed..

“Detailed information on this scenario can be found in the added in the chapter “Data of the underlying scenario’s”.”

Detailed information helping developing a correct scenario at building level shall be added in a chapter “Additional technical information for scenario development at building”. “For these other options additional materials are necessary for which the environmental impact is not included in this EPD but which should be taken into account at building level”. These options shall be listed.

### For as produced:

“Materials for fixation and installation are not included. Regarding installation this EPD only includes the environmental impact related to the product itself: *list them e.g. material losses, packaging EOL and all relevant impacts e.g. for blow in the energy necessary shall be declared*). For installing the product following scenario’s are possible: *list them*. This may lead to the need of additional products and materials for which the impact is not included in this EPD and which shall be taken into account at building level. More detailed information on these scenarios can be found in the chapter “Additional technical information for scenario development at building”.

## 1.8 VARIABILITY AND DIFFERENT PRODUCT GROUPS WITHIN A B-EPD

The LCA expert (and verifier) shall assess the variability within an EPD based on the rules in the NBN/DTD B 08-001 (e.g. clause A22), his expert judgement and ISO 21930. The assessment shall be clearly explained and motivated in the project report.

## 1.9 MULTILAYER MATERIALS

Some products are composed out of several layers of which some are fixed and the other layer can vary in thickness.

E.g. an insulation panel with a core and a facer;

It is allowed to split the different parts into different impact tables in the B-EPD. In the database the two layers can be entered separately in such a way that users can combine them to calculate the environmental impact of different thicknesses.

Contact us for rules on how to enter this in the database.

## 1.10 B-EPD TEMPLATE AND ADDITIONAL MANDATORY INFORMATION TO BE INCLUDED IN THE B-EPD

The template developed and provided by the program operator shall be used.

The B-EPD shall only contain verifiable information and shall be in line with ISO 14021. A B-EPD shall e.g. not contain vague information or vague statements, nor marketing talk. In case of doubt the program operator decides on the final text.

This template may require additional information to be provided such as “weight per reference flow”, density of the product,

## 1.11 FIELDS TO BE ENTERED IN THE DATABASE

The program operator has a checklist with all content to be declared in the the database.

## 2 COMPLEMENTARY RULES FOR B-EPD TO BE USED IN TOTEM

*These rules are only relevant for those B-EPD to be implemented in TOTEM. If you don't want your B-EPD in TOTEM, this chapter is not applicable.*

Totem is the building calculator of the three regional authorities in Belgium to calculate the life cycle environmental impact of a building. [www.totem-building.be](http://www.totem-building.be)

It uses generic data from Ecoinvent modified to the Belgian situation (e.g. electricity mix).

## 2.1 WHICH EPD IN TOTEM?

In 2021 Totem will include EPDs. Only EPDs of the Belgian EPD program will be used. The Belgian EPD program sets rules for complying to the Royal Decree of 2014.

This implies following:

- Declaration of modules A123, A4, C2, C3, C4 and D.
- All declared modules shall be representative for Belgium
- Conformity to the complementary rules (NBN/DTD, c-PCR, this document, ...)
- Verified by a person conform to the Royal Decree
- Attestation of verification according to the specifications of the Federal Public Service
- Registration in the federal EPD database
- Compared to EN 15804+A1 Totem requires some additional impact categories

The B-EPD shall also comply to all other requirements below .

## 2.2 WHICH VERSION OF EN 15804?

From 2021 on, TOTEM will only use B-EPD according to EN 15804+A2.

## 2.3 NBN/DTD B08-001 - §A9 DEFINITION OF THE FUNCTIONAL UNIT

If you want your B-EPD to be integrated in [TOTEM](#) the B-EPD program operator shall be informed from the start on to define the functional unit in order to guarantee compatibility with Totem.

## 2.4 EUROPEAN COLLECTIVE EPDS

Collective European EPDs have to fulfill the same requirements as a B-EPD and will be visible within Totem next to the generic data in the same way as the B-EPDs of specific manufacturers. This involves special attention to the representativity for all declared modules for Belgium.

*Totem will investigate the possibility to replace or improve their generic data with data from European collective EPDs. Timing unknown.*

## 2.5 SECONDARY DATA

Totem was developed using ecoinvent data modified to the Belgium geography.

Until further notice Totem will also accepts B-EPD with Gabi or PEF background data. If Gabi or PEF background data are used, the declaration of modules A5, B2, B4, B6 and C1 becomes mandatory for use in Totem.

## 2.6 IMPACT CATEGORIES

**B-EPD according to EN 15804:A1**



The building tool of the regional authorities (**TOTEM**) requests following additional impact categories in the B-EPD for use in their building calculator. We provide files for use in Simapro and Gabi containing the right set; we highly recommend you to use these files. See §1.3. and §2.7.

Eco toxicity for aquatic freshwater		USEtox model (Rosenbaum et al, 2008) / The most recent version should be used.
Human toxicity (cancer effects)		USEtox model (Rosenbaum et al, 2008) / The most recent version should be used.
Human toxicity (non-cancer effects)		USEtox model (Rosenbaum et al, 2008) / The most recent version should be used.
Particulate matter		Riskpoll with Humbert update (2009) <i>(We also accept the more recent update of 2011)</i>
Resource depletion water		'Water scarcity" Swiss ecoscarcity model by Frischknecht (2008)
Land use & biodiversity	Soil organic matter (SOM) - transformation	Mila I canals (2007)
	Soil organic matter (SOM) - occupation	Mila I canals (2007)
	Biodiversity due to land occupation	Kölner (2000) as used in eco-indicator 99
	Biodiversity due to land transformation	Kölner (2000) as used in eco-indicator 99
	Biodiversity due to land occupation <ul style="list-style-type: none"> <li>• Urban, industry</li> <li>• agricultural</li> <li>• forest</li> </ul> Biodiversity due to land transformation <ul style="list-style-type: none"> <li>• Tropical forrest</li> </ul>	Based on Kölner (2000) as used in eco-indicator 99, but with characterization factors set to 1. These are the flows.
Ionizing radiation	Ionizing radiation, human health effects	Frischknecht based on Dreicer (2000)

### **B-EPD according to EN 15804:A2**

All indicators of EN 15804:A2 shall be declared: this implies both core and additional impact categories shall be included in the B-EPD.

## **2.7 SOFTWARE**

At our website ([www.b-epd.be](http://www.b-epd.be)) you can find a **.csv file for Simapro and a file for Gabi** with all indicators and characterization factors for a B-EPD according to EN 15804+A1 for use in TOTEM.

We draw your special attention to the rendering of the results using Gabi software, even when using our file. If for a certain indicator none of the characterised flows are present in the LCA model, then this indicator becomes 0 and will not be shown in the results. If you copy the result table in your EPD for verification, this indicator will not be included and will not be part of the verification. We stress that all indicators need to be in the B-EPD and need to be verified, even if the result was 0. Therefore in some cases it will be necessary to

manually complete the indicator table and to provide proof to the verifier of this. We have already seen examples of the land use indicators. We are in touch with Gabi in order to solve this inconvenience.

## 2.8 LIFE CYCLE STAGES

Following modules are mandatory to be declared in a B-EPD: A123, A4, C2, C3, C4 and D. More details can be found in the NBN/DTD B 08-001. TOTEM does not calculate B1, B3, B5, B7 and D for the time being.

This has consequences for the use of the Totem building calculator of the regional authorities which calculates also modules A5, B2, B4, B6 and C1. For transparency reasons we inform you in the paragraph how this building calculator deals with missing or non-representative modules.

Every module declared in the B-EPD will be used within the building calculator.

If the B-EPD does not contain A5, B2, B4 or C1, Totem will deal with it as follows:

A5	Totem will calculate a value for A5. This will be done on the basis of a worst case scenario (e.g. for material losses during installation). When biogenic carbon is declared, it is mandatory to declare the biogenic GWP of packaging materials seperately. Totem will then calculate a value for A5.
B2	Totem will calculate a value for B2. This will be done with generic data based on ecoinvent or on the basis of a worst case scenario.
B4	Totem calculates B4 on the basis of the declared RSL
B6	This module is calculated at building level based on the lambda values provided in the B-EPD (the inclusion of energy using products is under development within Totem).
C1	Totem will calculate a value for C1. This will be done on the basis of a worst-case scenario with generic data.

For the time being EPD for raw materials and intermediate products will not be integrated in Totem (e.g. sand, cement). Some exceptions may exist.

Collective EPDs, regardless of consisting out of only Belgian manufacturers, or at European level, have to fulfill the same criteria as stated above.

## 2.9 LANGUAGE AND TRANSLATION

TOTEM accepts B-EPD established in one of the four following languages: Dutch, French, German, English.

For following parts of the B-EPD the owner of the B-EPD needs to provide a translation when entering the B-EPD in our database:

- Productname
- Product description (A short description of the product to make the product recognizable for an architect or consumer in case the product name is vague.)
- Intended use (A more detailed description of the application for which the product is made available on the market.)
- Product composition (EN 15804 §7.1 d) E.g. including the fixing materials or not, including the individual packaging or not, ... but also the description of the different components of a kit. Also the chemical composition shall be inserted here.)
- Application unit

If no translation is entered in the database, the B-EPD will not be visible within TOTEM for that language.

## 2.10 APPLICATION UNIT

**\*\* The section below may be challenging sometimes. We are here to help you with it. Contact us and we will set it up for you \*\***

The manufacturer enters for every application of his product an application unit in the database.

This application unit translates the impact table in the B-EPD to a specific application which is *computer understandable* by means of a single ratio.

At least one application unit shall be entered.

If the reference flow of the B-EPD is the same as the application unit, than a ratio = 1 shall be entered.

In case of doubt you can contact us ([epd@health.fgov.be](mailto:epd@health.fgov.be)) or TOTEM ([helpdesk@totem-building.be](mailto:helpdesk@totem-building.be)) and put "application unit B-EPD" in the subject line.

This is how it looks like in the database:

Reference\_flow\_application

Name \* :

Element \* :

Detail \* :

Quantity and unit \* :

Thickness \* :  mm

Not ap

Description \* :

Proportional to the environmental impact \* :  Yes  No

Ratio application / reference quantity \* :

Description \* :

## Name

This is the name that will appear directly in TOTEM and will be the main information of your product that the TOTEM user sees. To ensure a consistent database please follow a similar naming structure to the examples below.

**Commercial name - material – form - dimensions - important property(ies) – essential information on installation**

If possible provide a unique and meaningful name for each application, that helps the TOTEM user to select the most relevant product for their building.

It shall not contain the manufacturers name as this will be added automatically in TOTEM.

### Examples

- UTherm roof L - PUR panels - 2400 x 1200 mm -  $\lambda$  0,022 W/m.K
- Readymixed concrete - C30/37, EE2, S4, Dmax 22mm, CEM III/A 42,5 N LA.
- Building clay bricks "Jamie" – 290 x 140 x 140 mm – loadbearing - bricklaid – excluding mortar

## Element and Element detail

We provide you with a predefined list of elements and element details where your product can be applied. You can select the relevant part of the building where the product is used. If multiple elements are possible, than multiple application units shall be created.

The list of elements is based on the BBSFB code. You can contact us for help.

## Quantity and unit

This is the quantity and unit of the application.

E.g. the reference flow in the B-EPD can be per ton, while the application unit is 1 m<sup>2</sup>.

## Thickness

Here you enter the thickness of the product applied (in mm), if relevant and fixed. For planar products (e.g. insulation panel, floor slab, etc.) the definition of thickness is straightforward. For non-planar products (e.g. tubes, mortar, a staircase step, screws, etc.), the thickness might not be relevant. Please contact us or contact TOTEM. If the thickness is filled in for a non-planar product, make sure the name and the description of the thickness property define clearly what type of property is considered (e.g. radial tube wall thickness vs. tube internal diameter vs. tube external diameter).

### Thickness description

Please define clearly the property you have entered, if your product has multiple possible ways of defining a thickness. E.g. for pipes: pipe wall thickness, pipe diameter, etc.

Additionally, specify if the product is available for infinite values (e.g. the product can be custom made to any size) or finite thicknesses (e.g. the product is only produced for certain standard sizes). E.g. "Available thicknesses: 30 / 40 / 50 / 60 / 70 / 80 / 100 / 120 mm"

### Proportional to the environmental impact

Only answer 'Yes' to this question if there is a linear connection between the property of your product and its environmental impact. E.g. Thickness.

Consider an EPD with a reference flow of 1 m<sup>2</sup> of insulation material (with a thickness of 100 mm). Is the insulation material also produced with a thickness of 60, 80, 120, 140 mm? And if this is the case, would the environmental impact of your product change proportional to the thickness of your product? For homogenous materials, it often is. But for heterogenous products, it might not be. If your insulation product consists of a core (with variable thickness) and an aluminium facer (with a non-variable thickness), it is not. When comparing the insulation product with a thickness of 100 mm with the product of 140 mm, the impact of the core will increase (variable thickness), but the impact of the aluminium facer (non-variable thickness) will remain the same. The impact of the core only is proportional to the thickness of the core, but the environmental impact of the core + facer is not proportional to the thickness of the core + facer. So in this case, the total environmental impact is not linearly proportional to the product thickness.

For multilayered products of which only part is proportional to the environmental impact, please check § 1.9.

### Ratio application / reference quantity

E.g. if your reference quantity (i.e. to what the impact table is corresponding) is "per ton of product" and the application unit is "1 m<sup>2</sup> of applied product", then the ratio is the impact per m<sup>2</sup> divided by the impact per ton of product.

E.g. The reference quantity for a roof tile can be "ton". Depending on the shape and overlap when installed, the real impact per m<sup>2</sup> can differ per type of roof tile. The different types can be entered as different application units with their specific ratio, allowing TOTEM to calculate all relevant application units, based on one EPD.

Another example: if your declared unit is 1 m<sup>2</sup> of insulation material with a thickness of 100 mm, and the application unit is 1 m<sup>2</sup> of insulation material of 140 mm thickness: Ratio = 140 / 100 = 1,4

If the reference quantity is the same functional unit as in the EPD, then you still need to enter an application unit, but the ratio then becomes 1.

## Description

Please note that this description will appear directly in TOTEM and will be the main information of your product that the TOTEM user sees. Make sure that the description describes the use of the product in a clear way, and that it informs the TOTEM user of what is included/excluded in the EPD.

E.g. The bricks (290x140x140 mm) are bricklaid with 1 cm joints, but the necessary mortar (32 kg) is NOT considered in this EPD.

## Example 01

application unit nr	1	2
Name EN	UTHERM Floor K – PUR panels - 1200 x 1000 mm - $\lambda$ 0,022 W/m.K	UTHERM Wall L , LE - PUR panels - 600 x 1200 mm - $\lambda$ 0,022 W/m.K
Element	Bodem, onderbouw	Buiten- en binnenwanden
Detail	Thermische isolatie voor vloeren op volle grond	Thermische of akoestische isolatie voor buiten- en binnenwanden
Quantity	1 m <sup>2</sup>	1 m <sup>2</sup>
Thickness	80 mm	80 mm
Description	Available thicknesses: 30 / 40 / 50 / 60 / 70 / 80 / 100 / 120	Available thicknesses: 40 / 50 / 60 / 70 / 80 / 90 / 100 / 110 / 120 / 140 / 160
proportionate	yes	yes
min	20	20
max	240	240
Toelichting proportionate	The thickness for which a linearity can be assumed for the environmental impact varies from 2 cm to 24 cm.	The thickness for which a linearity can be assumed for the environmental impact varies from 2 cm to 24 cm.
Ratio application / reference quantity	1	1
Description EN	Tongue and groove joint. The Rd value for the different thickness can be calculated by dividing the thickness by the lambda value. This EPD considers the impact of the insulation panel. Ancillary materials (if needed) are not considered.	Tongue and groove joint. For insulation of the cavity wall. The Rd value for the different thickness can be calculated by dividing the thickness by the lambda value. This EPD considers the impact of the insulation panel. Ancillary materials (if needed) are not considered.

## Example 02

application unit nr	1	2	3
Name EN	Fibre cement corrugated sheet - roof (pitch > 5°), 1,220 x 1,090 m - overlap 0,2 m - screws	Fibre cement corrugated sheet - wall - 1,22 x 1,09 m - overlap 0,2 m - screws	Fibre cement corrugated sheet, roof (pitch > 5), 1,585 x 1,090 m, overlap 0,2 m, screw
Element	Roof	External walls	Roof
Detail	Roof finishing	Finishing for external walls	Roof finishing
Quantity	1 m2	1 m2	1 m2
Thickness	6,5 mm	6,5 mm	6,5 mm
Description	the product is not produced in other thicknesses	the product is not produced in other thicknesses	the product is not produced in other thicknesses
proportionate	No	No	No
Ratio application / reference quantity	<b>1,05</b>	<b>1,05</b>	<b>1</b>
Description EN	<p>The EPD represents SVK fibre cement corrugated sheets with a thickness of 6,5 mm that can be used in a roof or a façade. SVK corrugated sheets are manufactured on the basis of a homogeneous mixture of Portland cement, organic fibres, selected mineral additives and water. Neptunus corrugated sheets are extremely strong, watertight, rust free and incombustible. They do not rot and they are resistant to vermin and most weather circumstances. They are coated on the upper side with a water-based acrylic paint. SVK corrugated sheets are available in various lengths. Materials for mounting and installation such as screws, washers and seals are included in the environmental impact.</p>	<p>The EPD represents SVK fibre cement corrugated sheets with a thickness of 6,5 mm that can be used in a roof or a façade. SVK corrugated sheets are manufactured on the basis of a homogeneous mixture of Portland cement, organic fibres, selected mineral additives and water. Neptunus corrugated sheets are extremely strong, watertight, rust free and incombustible. They do not rot and they are resistant to vermin and most weather circumstances. They are coated on the upper side with a water-based acrylic paint. SVK corrugated sheets are available in various lengths. Materials for mounting and installation such as screws, washers and seals are included in the environmental impact.</p>	<p>The EPD represents SVK fibre cement corrugated sheets with a thickness of 6,5 mm that can be used in a roof or a façade. SVK corrugated sheets are manufactured on the basis of a homogeneous mixture of Portland cement, organic fibres, selected mineral additives and water. Neptunus corrugated sheets are extremely strong, watertight, rust free and incombustible. They do not rot and they are resistant to vermin and most weather circumstances. They are coated on the upper side with a water-based acrylic paint. SVK corrugated sheets are available in various lengths.</p>

## 2.11 PUBLIC VISIBILITY

In case users of TOTEM want more information on a B-EPD, TOTEM will include a hyperlink to the B-EPD database. This implies that only B-EPD which are visible for the public can be incorporated within TOTEM. Both options below must be checked “yes”.

CONFIDENTIALITY

I agree to have the environmental information publicly available.  Yes  No  
*It is mandatory to have the environmental information publicly available at least when you want your B-EPD in TOTEM, when you have a collective B-EPD and want other to use it ("attach") and when you need your B-EPD for the environmental claims in the Royal Decree of 22.5.2014.* \*

I agree to have the environmental information used for calculations at building level by third parties.  Yes  No  
*If you want your EPD to be used in the building calculator (Totem) it is mandatory*  
 - to be compliant to the B-EPD program,  
 - to add a translation to the fields with "add translation" button  
 - to declare all indicators necessary for Totem (check document on [www.b-epd.be](http://www.b-epd.be))  
 - to use the right functional unit for Totem (contact FOD for this)  
 - enter information on the application unit and lambda (contact FOD for this) \*

## 2.12 THERMAL CHARACTERISTICS

For uptake of the B-EPD in TOTEM the thermal characteristics shall be declared in the database.

General

**Technical characteristics**

Emissions   
into Indoor Air

Emissions   
into soil, groundwater and surface water

Table with predefined characteristics to guarantee uniformity in the naming.

Characteristic	Unit	Reference of the standard	-
Light transmission			<a href="#">click to enter a value</a>
Thermal conductivity (declared lambda)	W/m.K		<a href="#">click to enter a value</a>
Solar transmission			<a href="#">click to enter a value</a>
Thermal transmission coefficient of the window (Uw)	W/m².K		<a href="#">click to enter a value</a>
Thermal transmission coefficient of the profile (Uf)	W/m².K		<a href="#">click to enter a value</a>
Thermal transmission coefficient of the glass (Ug)	W/m².K		<a href="#">click to enter a value</a>
Thermal resistance (Rd)	m².K/W		<a href="#">click to enter a value</a>

1 - 7

Technical characteristics Cancel Save

Related to : BWR6: Energy economy and heat retention

Characteristic \* :

Unit \* :

Reference of the standard \* :

Performance \* :

## 2.13 USE OF EUROPEAN EPDS AS REPLACEMENT FOR GENERIC DATA WITHIN TOTEM

For the time being Totem will not use European EPDs to replace their generic datasets. This possibility will be looked at in the future. As a consequence collective European EPDs have to comply to the rules of a B-EPD and they will be visible within Totem next to the generic data in the same way as the EPDs of specific manufacturers.



### 3 TRANSITION TO EN 15804+A2

#### 3.1 GENERAL CONSIDERATIONS

For the B-EPD program you are currently free to choose one of the two current EN 15804 versions.

*Note: This may change in the (near) future where only EN 15804+A2 may be allowed.*

We draw your attention however that from 2021 on, TOTEM will only use B-EPD according to EN 15804+A2.

Therefore we highly recommend you to only use EN 15804+A2.

A B-EPD template specific for EN 15804+A2 will be available and mandatory to use.

The NBN/DTD B08-001 remains valid until further notice, however where elements of the EN 15804+A2 deviate from the NBN/DTD B08-001, the EN 15804 has priority. In case of doubt you need to get in touch with us.

#### 3.2 MAIN CHANGES IN THE EN 15804+A2

Modules A123, A4, C2, C3, C4 and D and in some cases A5 already were mandatory for the B-EPD program. The EN 15804+A2 adds module C1 to this set of modules.

The B-EPD template will include a tickbox to indicate whether or not the product contains biogenic carbon as this is an important parameter.

This table shall be included in the B-EPD

Biogenic carbon content (kg C / FU)	
Biogenic carbon content in product	
Biogenic carbon content in accompanying packaging	

Types of EPD that may be provided

- Cradle to gate with modules C and D
- Cradle to gate with options, modules C and D => also A4, A5 or some B
- Cradle to grave and module D
- Cradle to gate
- Cradle to gate with options. A4 or A5.

The impact indicators change. The B-EPD program will require all (core + additional) indicators of the EN 15804+A2 to be declared in the B-EPD.

The characterization factors shall be those as stated in the EN 15804+A2. It is no longer allowed to have complementary characterization factors.

The B-EPD shall include the disclaimers as required in the EN 15804+A2.

The option "irrelevant" for indicators is no longer possible.

The EN 15805+A2 confirms that the B-EPD shall include information on carbon offsetting (not allowed), carbon storage, delayed emissions and carbon content.

The EN 15804+A2 explicitly allows to give technical information on scenario's which should be sufficiently clear and complete to allow scenario creation at building level, without declaring the impacts at product level.

*Note: These rules are applicable to the pdf-version of the B-EPD. For some aspects the database needs to be modified for which the timing is not known right now.*

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*If you have any comments or questions to this document, please contact us via [epd@environment.Belgium.Be](mailto:epd@environment.Belgium.Be)*

