

Document Identification	
Identifier	ER-TGR.00
Issue	1.0
Date	2023-10-11

# TECHNICAL GUIDELINE FOR RETAILERS

## Reports – Energy Efficiency Widget

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Written:	
Reviewed:	
Approved:	
Authorized:	

## Revisions

Revision	Description	Date
1.0	First Issue	2023-10-11

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# 1 Introduction

From January 1, 2019, all manufacturers and importers established in the European Union (EU) must register all products requiring an energy efficiency label in the European Product Registry for Energy Labelling (EPREL) database before they can be sold on the EU market. EPREL is an EU database containing all the technical data of these products. It also includes a set of regulations for energy efficiency labels, product information sheets, and what and how energy efficiency data must be presented in European retailer websites. Since May 2022, it also provides public access to all of this information in <https://eprel.ec.europa.eu>.

The aim of this report is to serve as a guideline for retailers on how to make their online shops compliant with online labelling requirements. In particular, we propose the integration of an Energy Efficiency Widget developed in HTML and JavaScript on each online shop. With this widget, the nested arrow (see an example in Figure 1.1), the energy efficiency label and the product information sheet of each product are directly retrieved from EPREL. This way they are always the official ones and retailers can save space in their databases as they do not need to store them anymore.



Figure 1.1: Nested arrow example

Note: this is not a HTML/JavaScript guide; it is assumed that readers have an adequate knowledge of these technologies.

## 2 Terms, Definitions and Abbreviated Terms

EC European Commission  
EPREL European Product Registry for Energy Labelling  
EU European Union

HTML HyperText Markup Language

### 3 Energy Efficiency Related Data in Online Shops

Energy efficiency-related data, that is:

- the nested arrow,
- the energy efficiency label, and
- the product information sheet

must be included in any online shop for all products that have an energy efficiency class according to the European Commission (EC) regulations. This information must be placed close to the price of each product.

For example, the EC regulation with regard to energy labelling of light sources states that:

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The appropriate label made available by suppliers in accordance with point 1(g) Article 3 shall be shown on the display mechanism in proximity to the price of the product.

---

and also

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The label may be displayed using a nested display, in which case the image used for accessing the label shall comply with the specifications laid down in point 3 of this Annex. If nested display is applied, the label shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the image.

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With respect to the product information sheet it is stated that:

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The appropriate product information sheet made available by suppliers in accordance with point 1(h) of Article 3 shall be shown on the display mechanism in proximity to the price of the product.

The product information sheet may be displayed using a nested display or by referring to the product database, in which case the link used for accessing the product information sheet shall clearly and legibly indicate ‘Product information’ sheet. If nested display is used, the product information sheet shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the link.

---

In summary we can say that:

- Labels and product information sheets must be **in proximity to the price of the product**.
- They must be at most **one mouse click away** from the page where the product price is shown.

These rules must be applied on every page where energy efficiency-related data is presented. Retailers can decide where to present this information, e.g. in the catalog page, the shopping cart, etc.

There is no precise definition of “in proximity to the price” which also gives retailers a certain degree of freedom in how to code their online shops and where to exactly put the energy efficiency-related data.

In Figure 3.1 you can see an example of nested arrows and links to product information sheets in the catalog page of an online shop. In this case, they are just under the price of each product. Clicking a link to the product information sheet opens it in another page and clicking a nested arrow displays the energy efficiency label, meaning that they are only *one click away* from the main page.

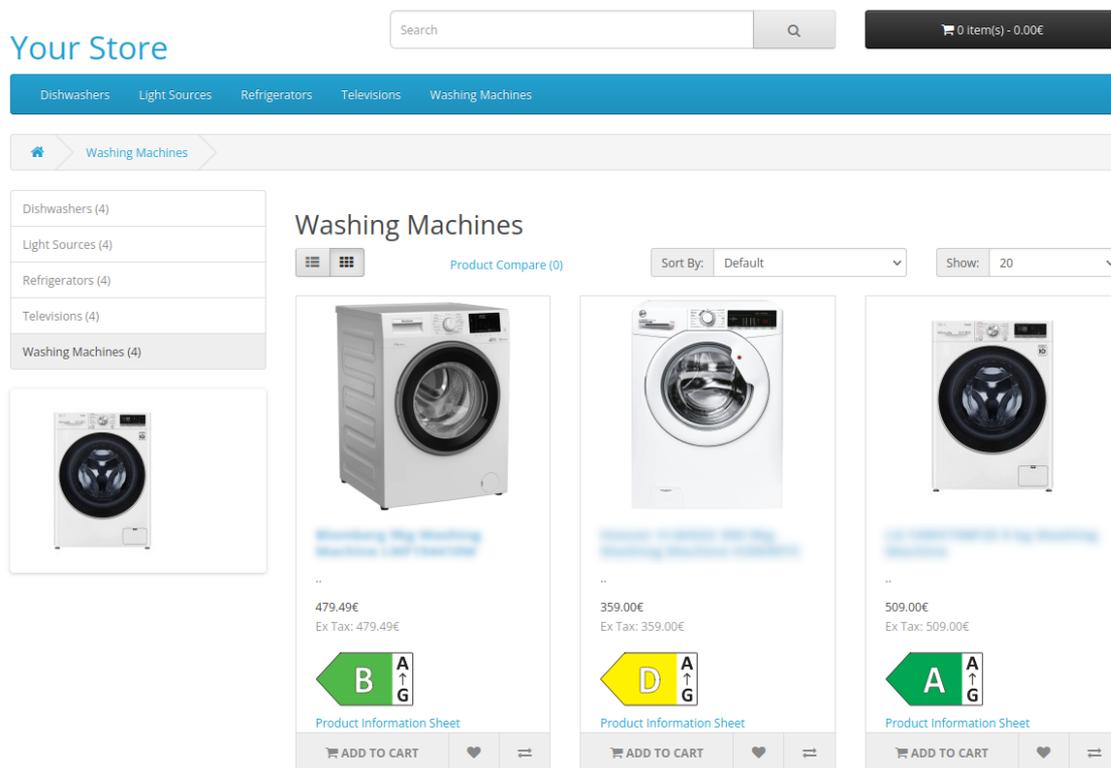


Figure 3.1: Nested arrows and links to product information sheets in catalog page

## Your Store



0 item(s) - 0.00€

[Dishwashers](#)[Light Sources](#)[Refrigerators](#)[Televisions](#)[Washing Machines](#)[Refrigerators](#)[Zanussi 266L Integrated Fridge Freezer ZNFN18FS5](#)

### Zanussi 266L Integrated Fridge Freezer ZNFN18FS5

Brand: [Zanussi](#)

Product Code: Zanussi ZNFN18FS5

Availability: In Stock

[Description](#)[Reviews \(0\)](#)

751.45€

Ex Tax: 751.45€



[Product Information Sheet](#)

Qty

Figure 3.2: Nested arrows and links to product information sheets in product page

Two more examples are presented in Figure 3.2 and Figure 3.3. They show a product page and a shopping cart tab with the energy efficiency-related data.

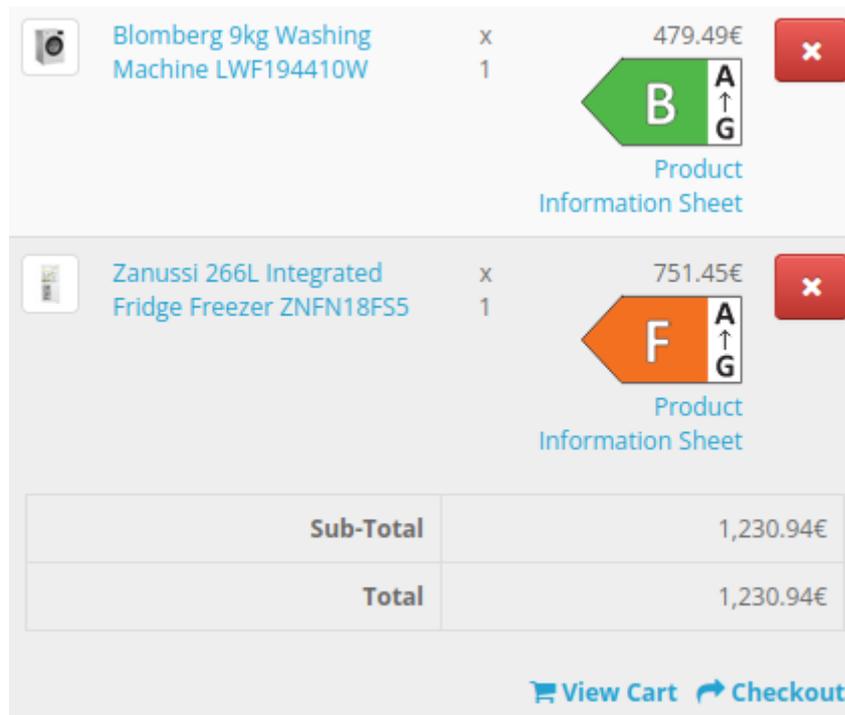


Figure 3.3: Nested arrows and links to product information sheets in shopping cart

The nested arrow and the link to the product information sheet shown in the previous figures were included by integrating the energy efficiency widget explained in the next section. If, for example, you prefer to not to display the link to the product information sheet in the shopping cart, below we explain below how to do this with the available version of the widget.

## 4 Energy Efficiency Widget Integration

### 4.1 Introduction

In this section we explain how to integrate the Energy Efficiency Widget in any online shop, as it is the easiest way to ensure that energy efficiency-related data is presented in accordance with the recommendations of the EC various regulations.

The widget is a simple JavaScript piece of code together with a HyperText Markup Language (HTML) placeholder. You can see it in Figure 4.1. It is to be placed in the source code of the front-end of your online shop, in a place so that the nested arrow and the link to the product information sheet are *close* to the price of the related product. The EU does not provide an exact meaning of “close” in this particular case; retailers have therefore a certain degree of freedom on where *exactly* to place it. A typical case would be just under the price as already shown in Figure 3.1.

```

1 <div id="energy-efficiency" style="display:flex; flex-flow:column wrap;">
2 <!-- This is a placeholder for all the energy efficiency related data.
3 Place it at your convenience in the relevant pages (product page, catalog page, etc.) of your website -->
4 </div>
5
6 <script type="text/javascript">
7 // Code to display, inside the HTML "div" shown above, the energy efficiency nested arrow of a product
8 // together with the links to retrieve from EPREL its energy efficiency label and product information sheet
9 function getProductEprelId() {
10 // Write the code to retrieve, from your internal database, the EPREL product registration number
11 // (also known as EPREL ID) of the product
12 }
13 function getLanguage() {
14 // Write the code to for the language of the product information sheet to be retrieved
15 }
16 function getSheetName() {
17 // Write here the text of the link to the product information sheet in the online shop language
18 // For example "Product Information Sheet" in English
19 }
20 var energyEfficiency = document.getElementById("energy-efficiency");
21 var labellink = document.createElement("a");
22 var nestedArrow = document.createElement("img");
23 var sheetLink = document.createElement("a")
24 nestedArrow.style = "width:100px; height:70px"; //Indicative size. Update it according to your website layout
25 nestedArrow.src = "https://eprel.ec.europa.eu/api/product/" + getProductEprelId() + "/nested-label";
26 labellink.href = "https://eprel.ec.europa.eu/api/product/" + getProductEprelId() + "/labels?format=SVG"
27 labellink.appendChild(nestedArrow);
28 energyEfficiency.setAttribute("id", "energy-efficiency-" + getProductEprelId()); // To let the "div" element above have a unique id
29 energyEfficiency.appendChild(labellink);
30 sheetLink.href = "https://eprel.ec.europa.eu/api/product/" + getProductEprelId() + "/fiches?language=" + getLanguage();
31 sheetLink.innerHTML = getSheetName();
32 energyEfficiency.appendChild(sheetLink);
33 </script>
    
```

Figure 4.1: Energy Efficiency Widget source code

You can place it different pages on you website such as:

- Product page: where all the information of a single product is presented
- Catalog page: where all the products of a certain group or brand are listed
- Shopping cart: for each product the customer intends to buy
- Comparison page: if your online shop has a dedicated place to compare the characteristics of different products

Please bear in mind that this widget cannot just be copy-pasted in the front-end code on your online shop. There are a few parts that you have to complete to tailor it to the particular structure of your website and the database you use to store all your product data as we explain below.

## 4.2 Structure

### 4.2.1 HTML Placeholder

The HTML part of the widget is just a `div` element whose `id` is `energy-efficiency`. It is just a placeholder for all the energy efficiency related data of the product. As already explained, you have to put it in your front-end code, *close* to the product price. Its actual content is automatically filled by the JavaScript code explained below.

---

```
<div id="energy-efficiency" style="display:flex; flex-flow:column wrap;">
  <!-- This is a placeholder for all the energy efficiency related data.
  Place it at your convenience in the relevant pages (product page,
  catalog page, etc.) of your website -->
</div>
```

---

### 4.2.2 JavaScript Functions

The JavaScript part of the widget consists of a few functions whose code needs to be filled in by the developers of the retailer's shop, and the necessary attributes and function calls to fill the HTML placeholder with the relevant energy efficiency related data of the product. In general, you do not need to place it in a specific location within your relevant website pages. Feel free to place it where it fits better with your front-end design.

The functions to be filled are:

- `getProductEprelId()`
- `getLanguage()`
- `getSheetName()`

#### **getProductEprelId()**

You have to code this function so that it retrieves the EPREL Id of the product from the database and returns it as a string.

Each product registered in EPREL is given a unique numerical identifier that is called EPREL Registration Number (also known as EPREL Id).

This Id must be stored in your relational database together with the rest of the data of each product. If you as a website developer do not manage the database of your online shop, ask your database manager how to retrieve this Id, or to include it in case it is not yet stored.

This Id is just a number. In the screenshot shown in Figure 4.2, taken from the EPREL website, you can see that “1452629” is the EPREL ID of the Candy CF 5C7F0X-80 dishwasher.

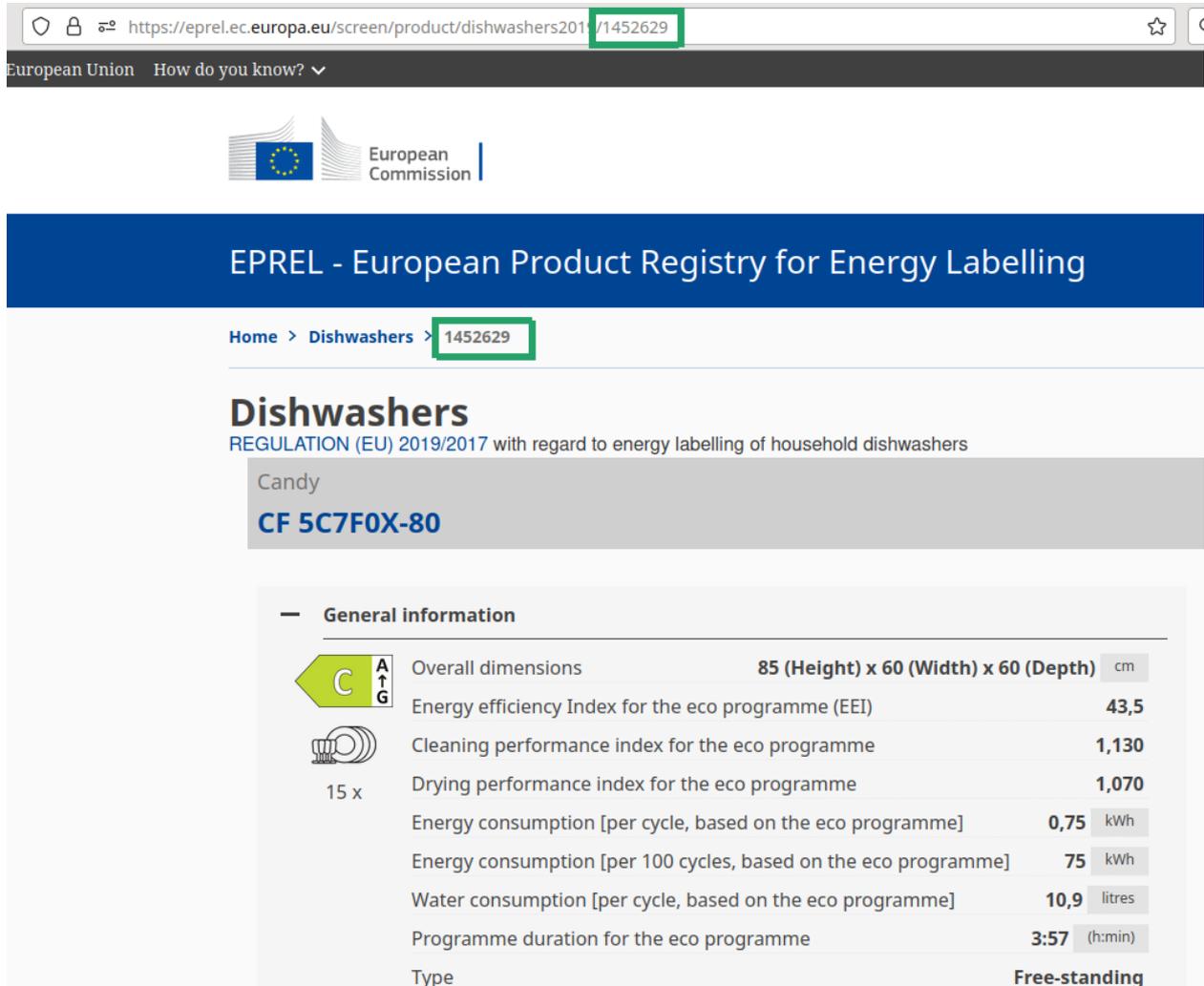


Figure 4.2: EPREL Id of a dishwasher on EPREL website

### getLanguage()

Function that returns the code of the language in which you want to display the product information sheet. This code is a two uppercase characters string of one of the 24 official languages of the EU. All valid possibilities are:

Table 4.1: Language codes of EU official languages

Code	Language	Code	Language
BG	Bulgarian	HU	Hungarian
CS	Czech	IT	Italian
DA	Danish	LT	Lithuanian
DE	German	LV	Latvian
EL	Greek	MT	Maltese
EN	English	NL	Dutch
ES	Spanish	PL	Polish
ET	Estonian	PT	Portuguese
FI	Finnish	RO	Romanian
FR	French	SK	Slovak
GA	Irish	SL	Slovenian
HR	Croatian	SV	Swedish

### getSheetName()

At the moment the EC requires that the text of the link to the product information sheet is exactly the official sheet name specified in EPREL. This means that, for example in english, this text has to be “Product fiche” for product groups that still have the old labels (following regulations prior to 2019) and it must be “Product information sheet” for product groups that already have the new labels. The exact texts in all 24 official EU languages are set out in the regulations, which are also available in all languages.

This function has to return this text in the specified language. For example, it has to return “Product information sheet” for new refrigerators when the set language is English.

### 4.2.3 Attributes and Function Calls

The rest of the JavaScript code is a set of definitions and function calls that can be integrated in your front-end without modification. A description is given below. Of course, if you wish to change the proposed styles to adapt them to your website framework, or if you want to change the proposed ids, feel free to update the widget’s source code, keeping in mind that the result has to be legible enough to be compliant with the regulation.

### Variables Definition

```
var energyEfficiency = document.getElementById("energy-efficiency");
var labelLink = document.createElement("a");
```

```
var nestedArrow = document.createElement("img");  
var sheetLink = document.createElement("a")
```

---

This is the definition of the variables used to create HTML attributes for:

- the EPREL link to the energy efficiency label of the product,
- the nested arrow of the product (also retrieved from EPREL), and
- the EPREL link to the product information sheet.

### Nested Arrow Style

---

```
nestedArrow.style = "width:100px; height:70px"; //Indicative size.  
//Update it according to your website layout
```

---

Set the style of the nested arrow, in particular its size. You can update this field at your convenience either by modifying the size or by adding more properties. Remember that in accordance to the regulation, the arrow has to be “clearly visible and legible”.

### Label links

---

```
nestedArrow.src = "https://eprel.ec.europa.eu/api/product/" +  
    getProductEprelId() + "/nested-label";  
labelLink.href = "https://eprel.ec.europa.eu/api/product/" +  
    getProductEprelId() + "/labels?format=SVG"  
labelLink.appendChild(nestedArrow);
```

---

Set the source link to the nested arrow on EPREL for the product with the EPREL registration number returned by `getProductEprelId()` so that the arrow is displayed in the web page.

Set the link to the label on EPREL for the product with the EPREL registration number returned by `getProductEprelId()`.

Append the nested arrow image to the label link attribute so that the actual label is displayed when a customer clicks on the nested arrow.

### Change div Element Id

---

```
energyEfficiency.setAttribute("id", "energy-efficiency-" +
```

---

```
getProductEprelId()); // To let the "div" element above have a unique id
```

---

Change the id of the `div` element to make it unique. This is done by appending the product registration number (which is unique to each product) to the already given id. In some cases, such as a catalog page where more than one product is presented, it may be necessary for this id to be unique. On other pages that contain only one item, such as the product page, it may be irrelevant.

### Append Link Attributes

---

```
energyEfficiency.appendChild(labelLink);
```

---

Append the label link attribute to the given `div` element.

### Name and URL of Sheet Link

---

```
sheetLink.href = "https://eprel.ec.europa.eu/api/product/"+  
    getProductEprelId() + "/fiches?language=" + getLanguage();  
sheetLink.innerHTML = getSheetName();  
energyEfficiency.appendChild(sheetLink);
```

---

Set the URL of the link to the product information sheet on EPREL for the product whose EPREL registration number is returned by `getProductEprelId()` and whose language is returned by `getLanguage()`. Then get the name of the link to the product information sheet and append it to the given `div` element.

If you do not want to show this link, you only have to delete (or comment out) these three lines of code.