



hansgrohe

# Carbon footprint of a bathroom



IN TOUCH  
WITH OUR  
**PLANET**

# Before you start...

## INTRODUCTION

The following analysis provides information on the carbon footprint of a bathroom.

### Background:

All products, buildings or building components cause greenhouse gas emissions throughout their life cycle. Greenhouse gases are defined as six different gases that have a negative impact on climate change. The best known is carbon dioxide ( $\text{CO}_2$ ). The impact of these gases is measured and compared in  $\text{CO}_2$  equivalents ( $\text{CO}_2\text{e}$ ). Therefore, when the term  $\text{CO}_2$  footprint is used in the analysis, it includes all the greenhouse gas emissions mentioned. The life cycle of an object includes all steps from creation to use to disposal.

### About the analysis:

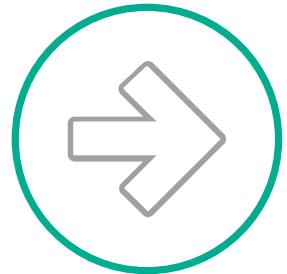
In this version of the analysis dated 03.06.2022, the manufacturing phase, the use phase and the disposal phase of the bathroom are considered. Production and disposal are summarized in the further course. Thus, in this document, one has the option of either adding up the production and disposal of the bathroom or to display the sum of all three life cycle phases. All values greater than 5 have been rounded to the nearest ten - minor deviations may therefore occur when calculating the totals.

The following basic assumptions were made for the analysis:

- o The design of the bathroom is intended to represent a standard bathroom as it is built in Germany today.
- o The bathroom is part of a residential building in Freiburg im Breisgau.
- o The size of the bathroom is 10 m<sup>2</sup>.
- o The bathroom is used by a family of 4 people.
- o The period of use considered corresponds to a typical renovation cycle of 20 years.



NEXT

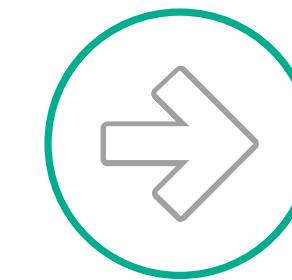


# Info on how to use the file

INSTRUCTIONS

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**Tip: Use full screen mode (CTRL + L)**

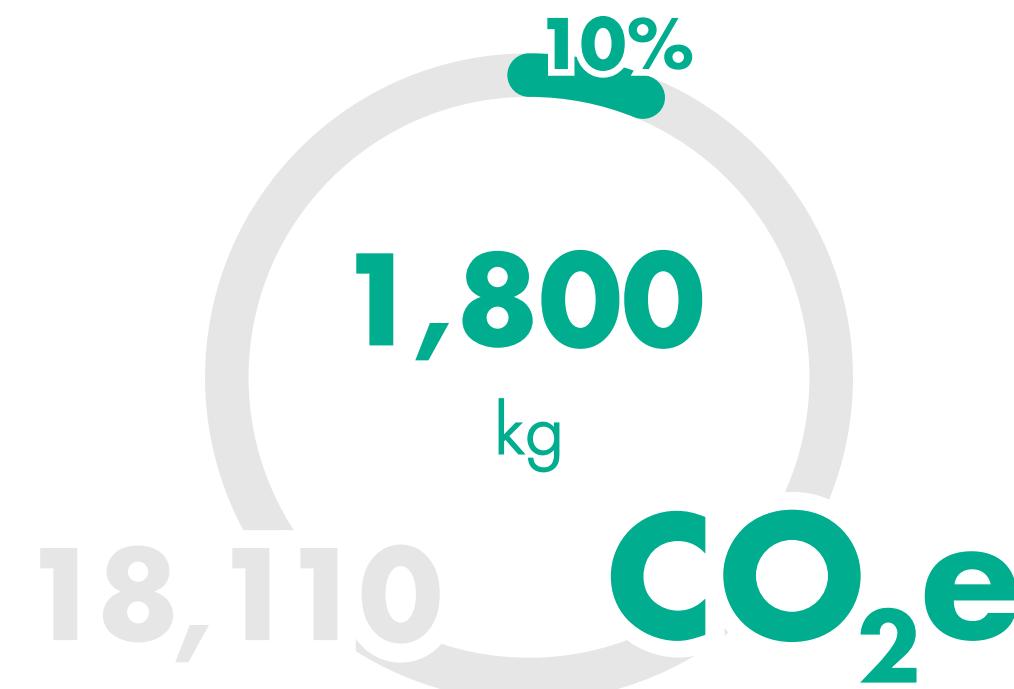


NEXT





HOME



OVERVIEW

CHART VIEW

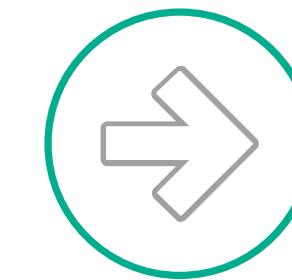


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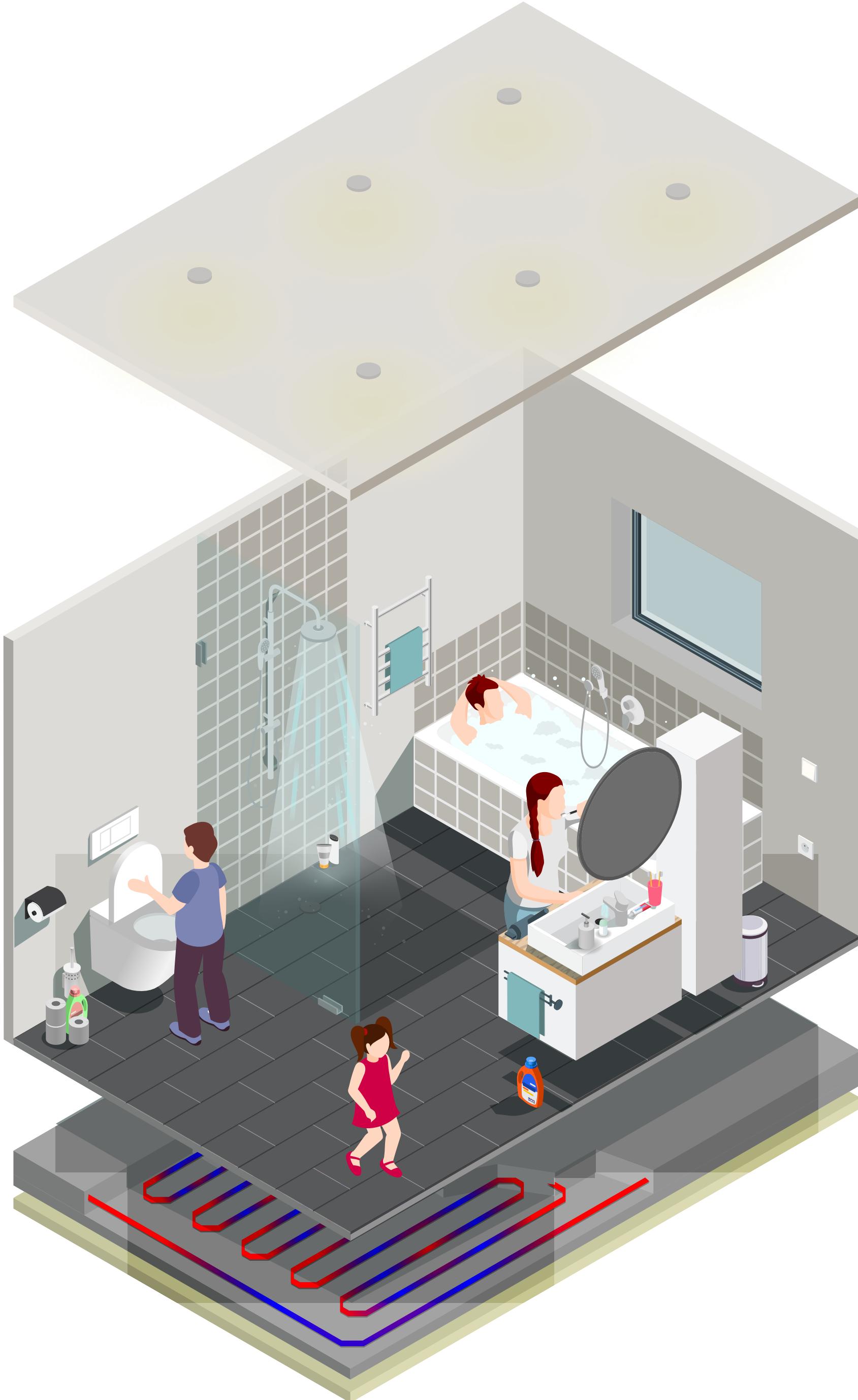
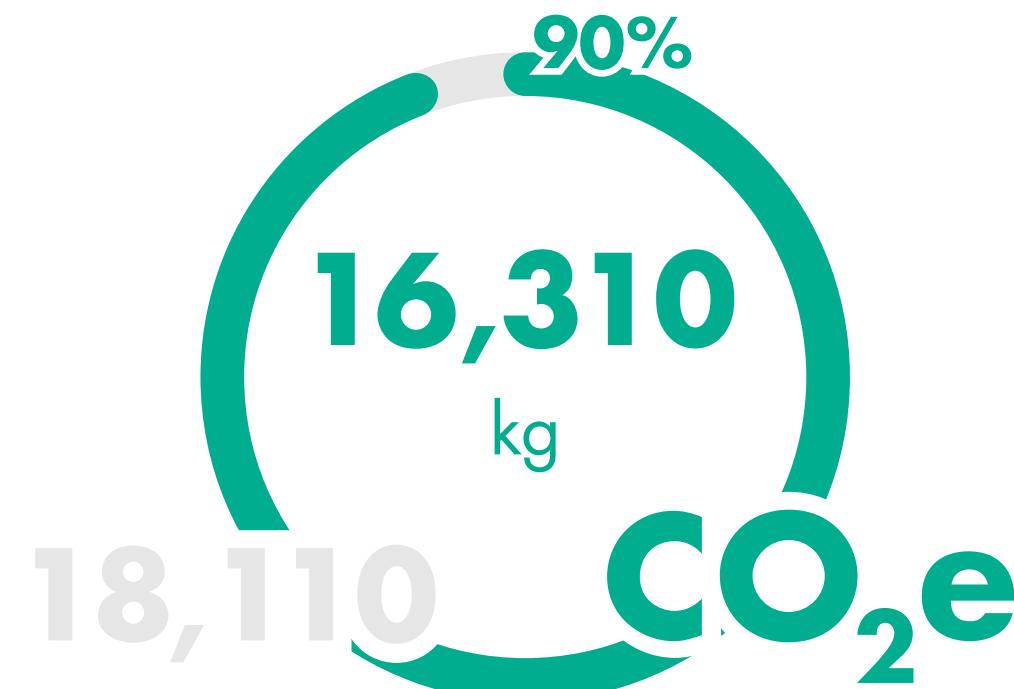


NEXT





HOME



OVERVIEW

CHART VIEW

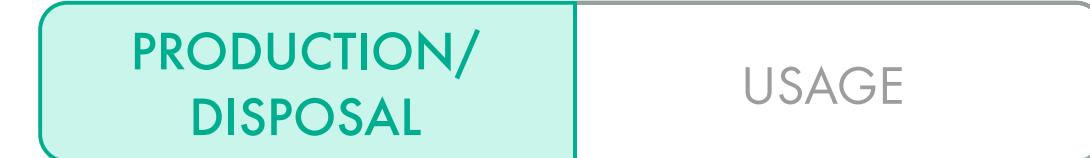


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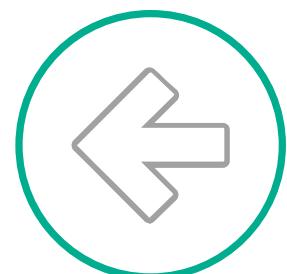
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NEXT



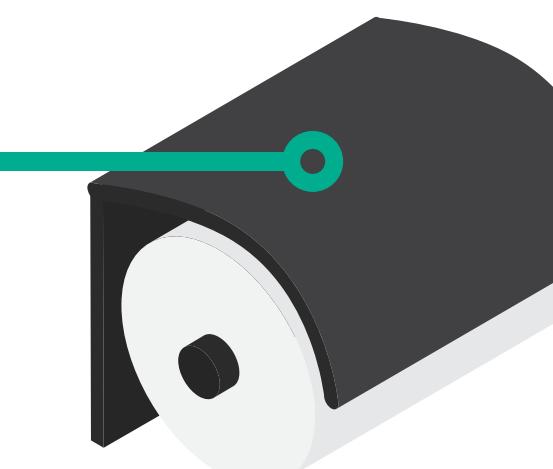


BACK

TOILET

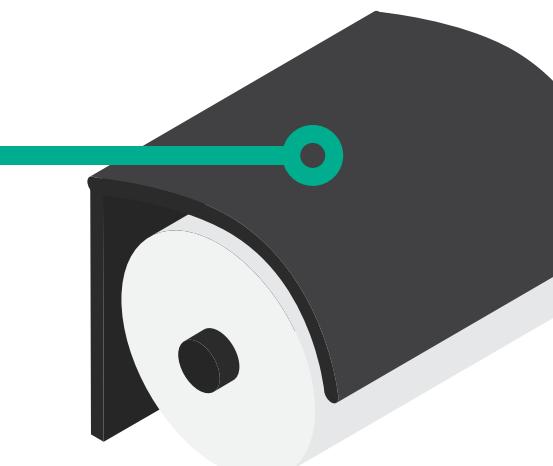
**Cistern system**

30 kg CO<sub>2</sub>e



**Hansgrohe toilet paper holder**

4 kg CO<sub>2</sub>e



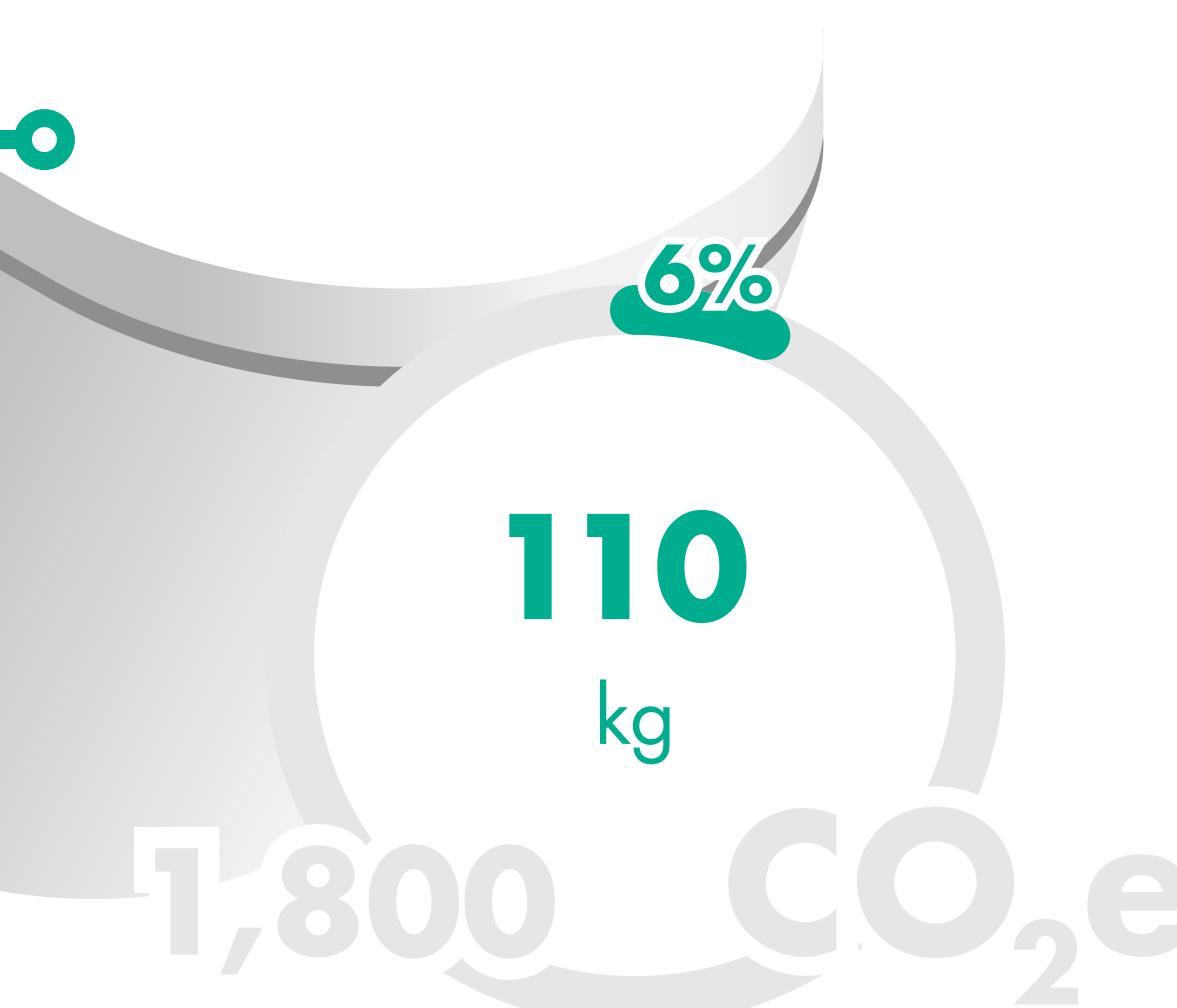
**Toilet**

70 kg CO<sub>2</sub>e



**Hansgrohe toilet brush holder**

3 kg CO<sub>2</sub>e

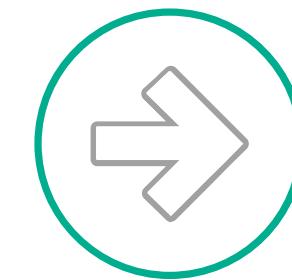
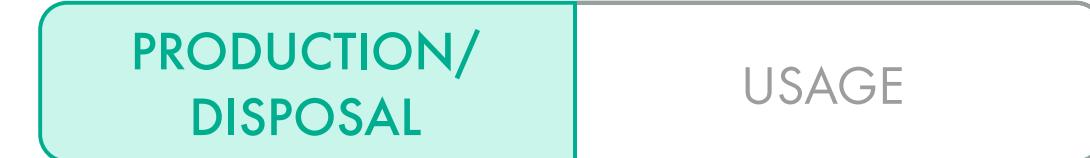


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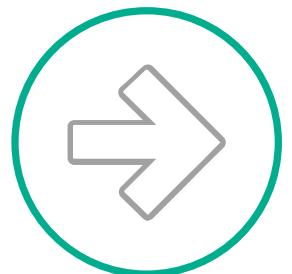
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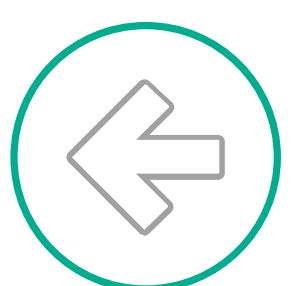
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BACK



SHOWER

**Ceramic tiles wall covering**

50 kg CO<sub>2</sub>e

**Hansgrohe Showerpipe**

10 kg CO<sub>2</sub>e

**Glass shower partition**

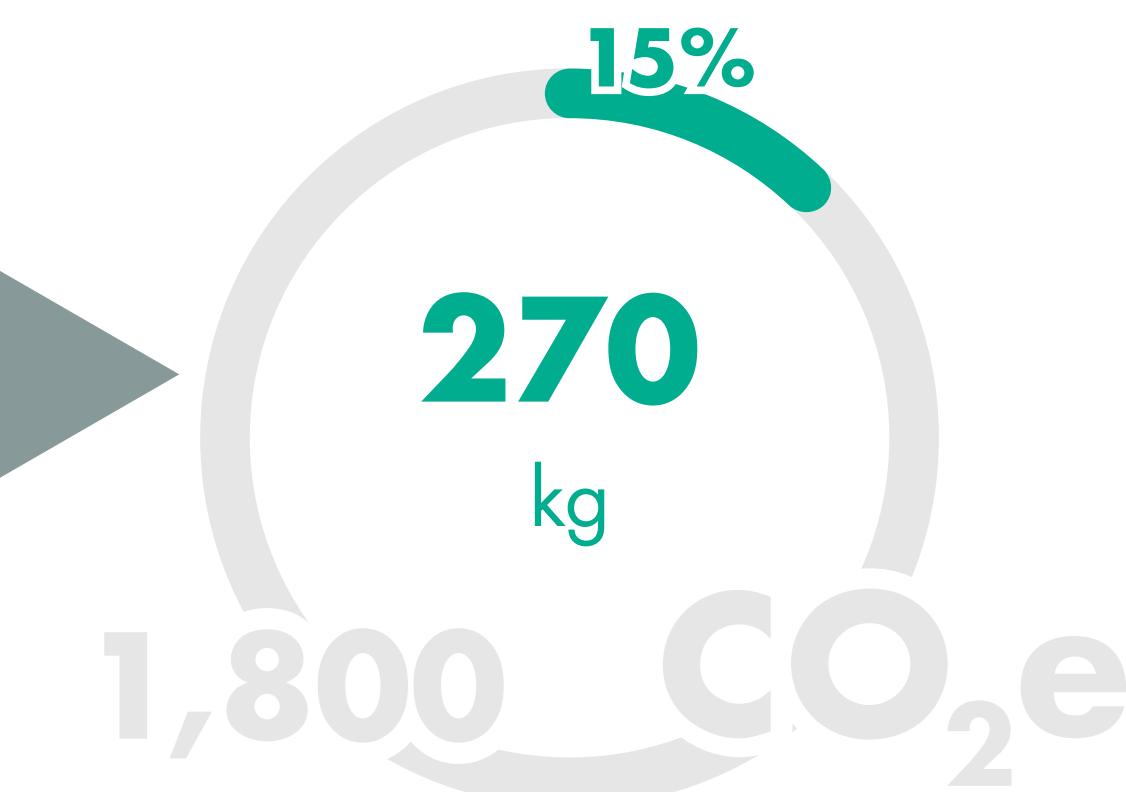
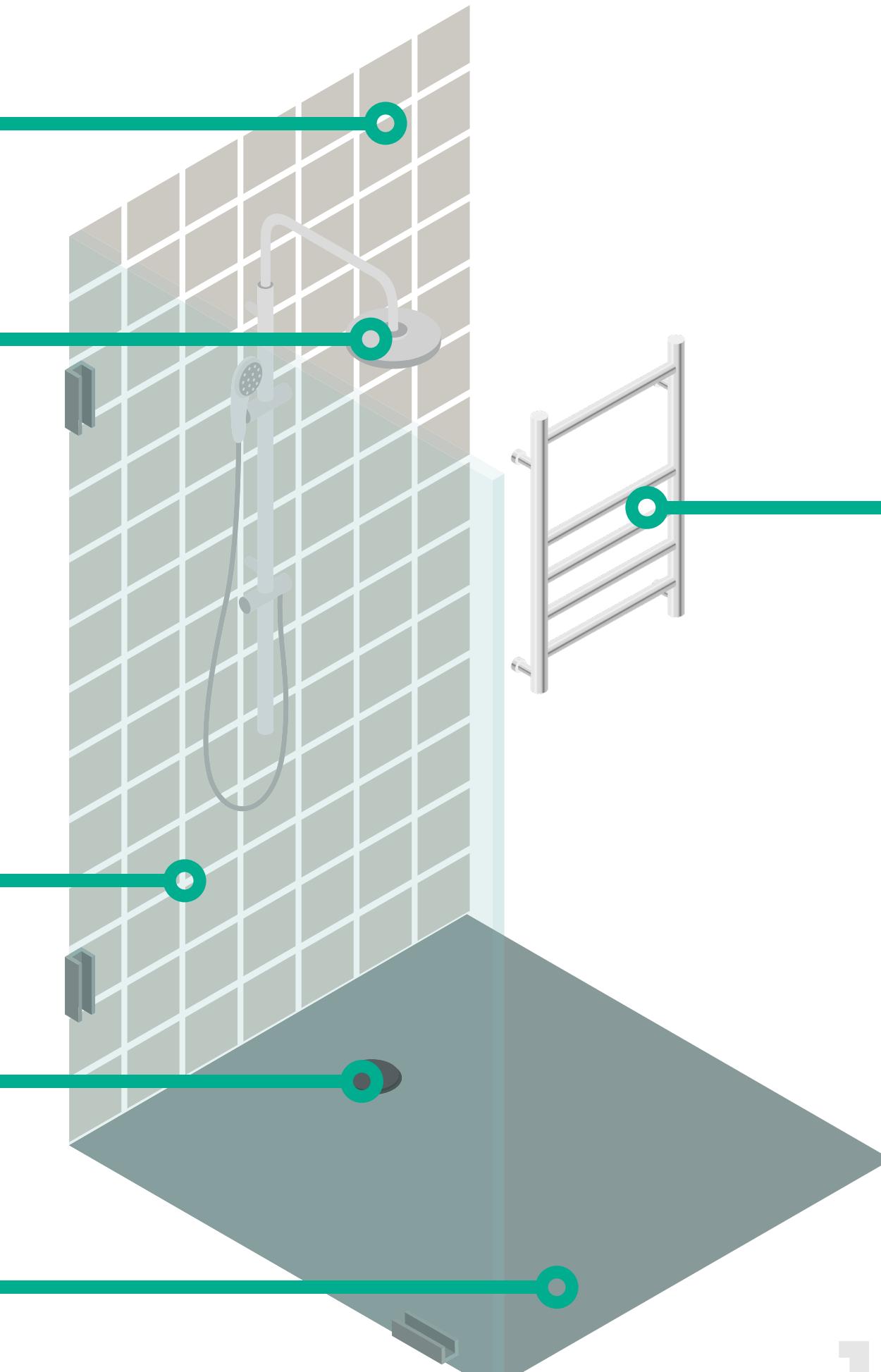
50 kg CO<sub>2</sub>e

**Hansgrohe drain set**

2 kg CO<sub>2</sub>e

**Ceramic tiles floor covering**

30 kg CO<sub>2</sub>e

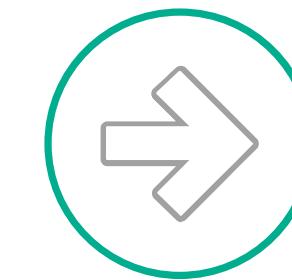


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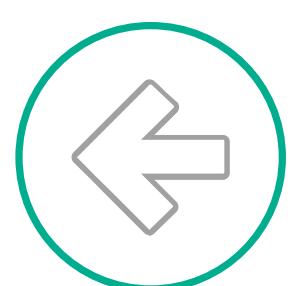
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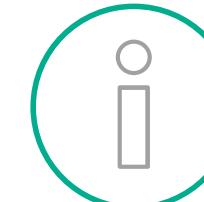


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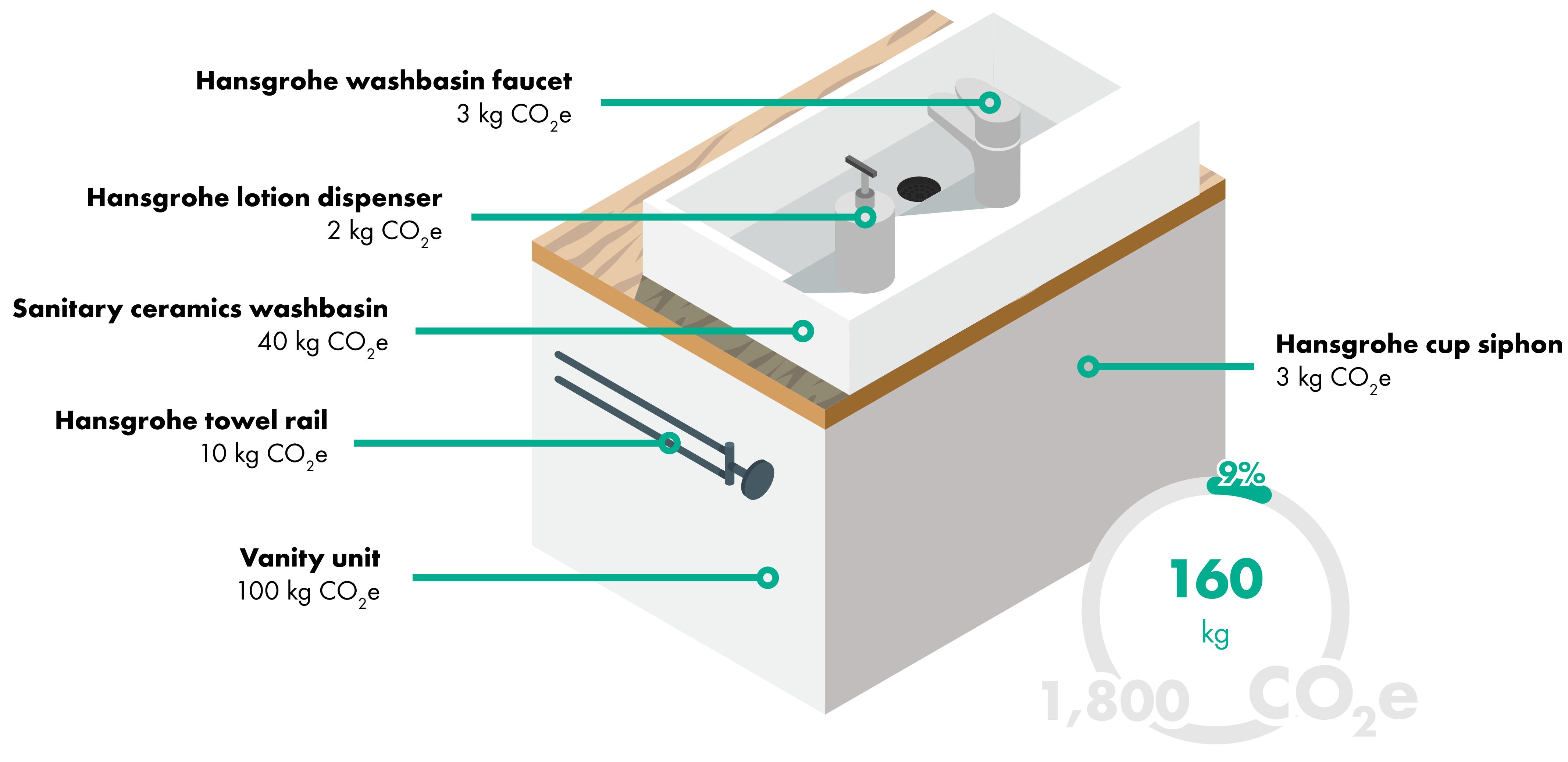




BACK



WASH BASIN

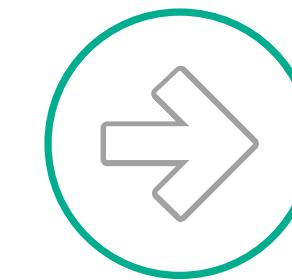


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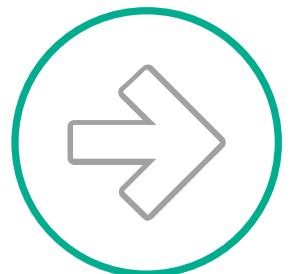
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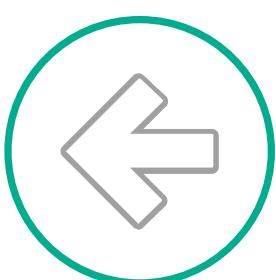
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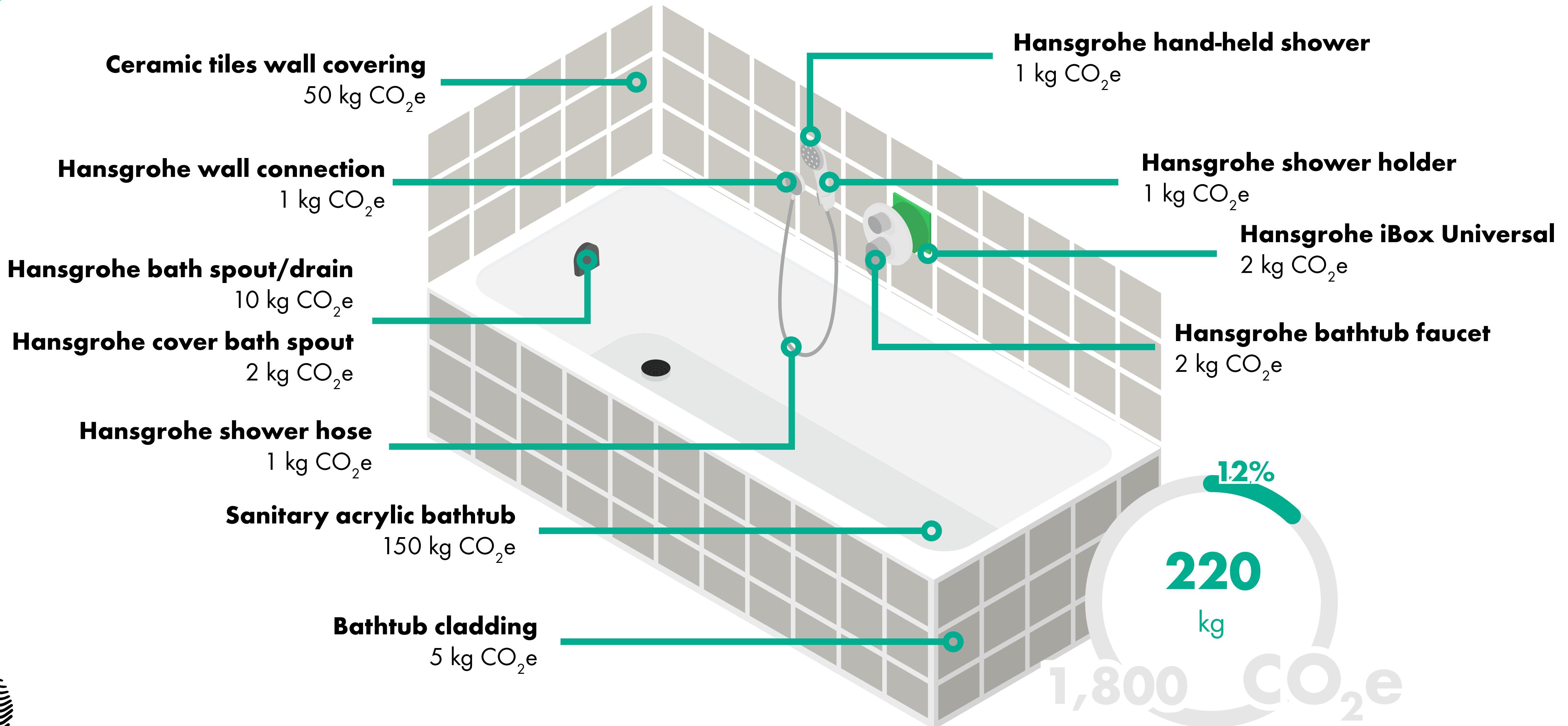




BACK



BATHTUB

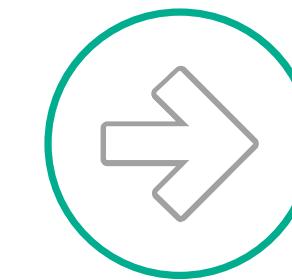


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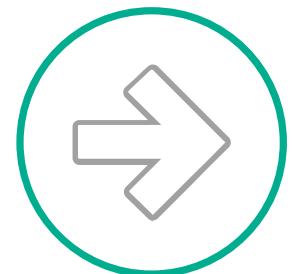
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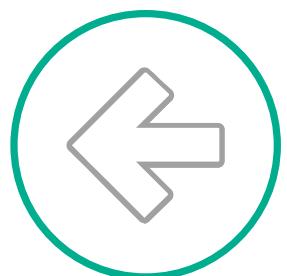
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BACK

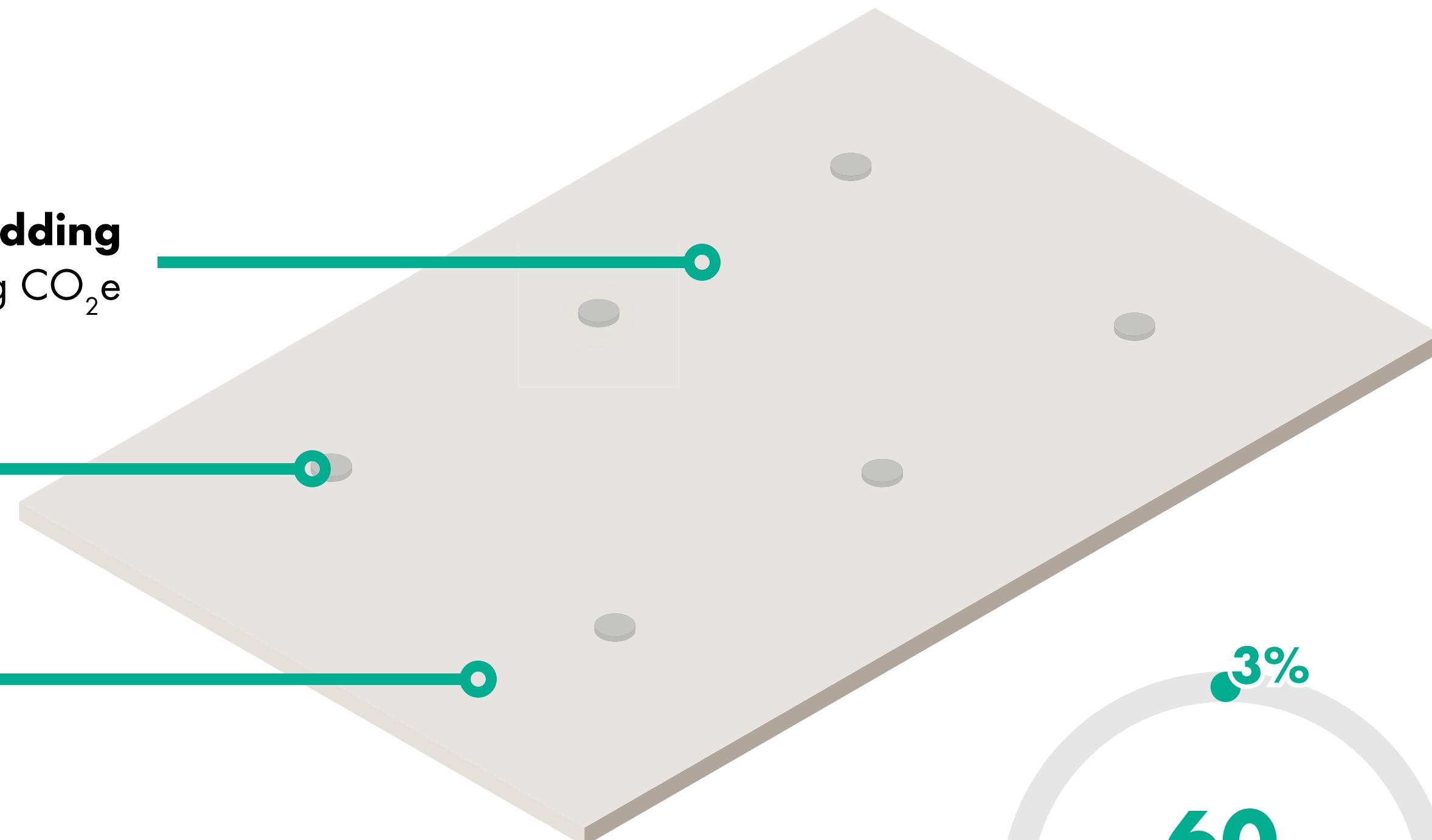


CEILING

**Plasterboard ceiling cladding**  
20 kg CO<sub>2</sub>e

**Ceiling spots**  
20 kg CO<sub>2</sub>e

**Ceiling profiles**  
20 kg CO<sub>2</sub>e



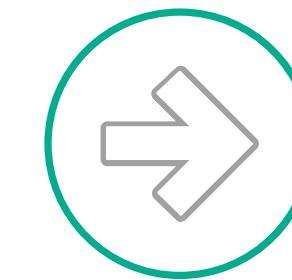
3%  
60  
kg  
1,800 kg CO<sub>2</sub>e

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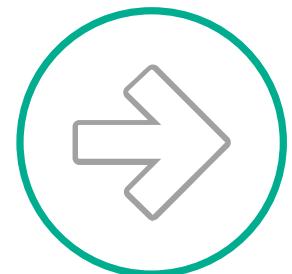
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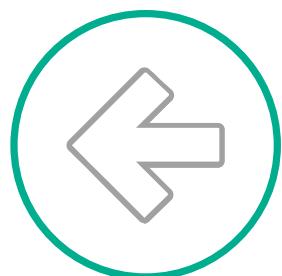
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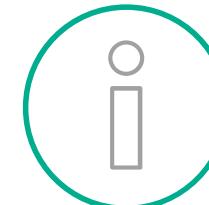


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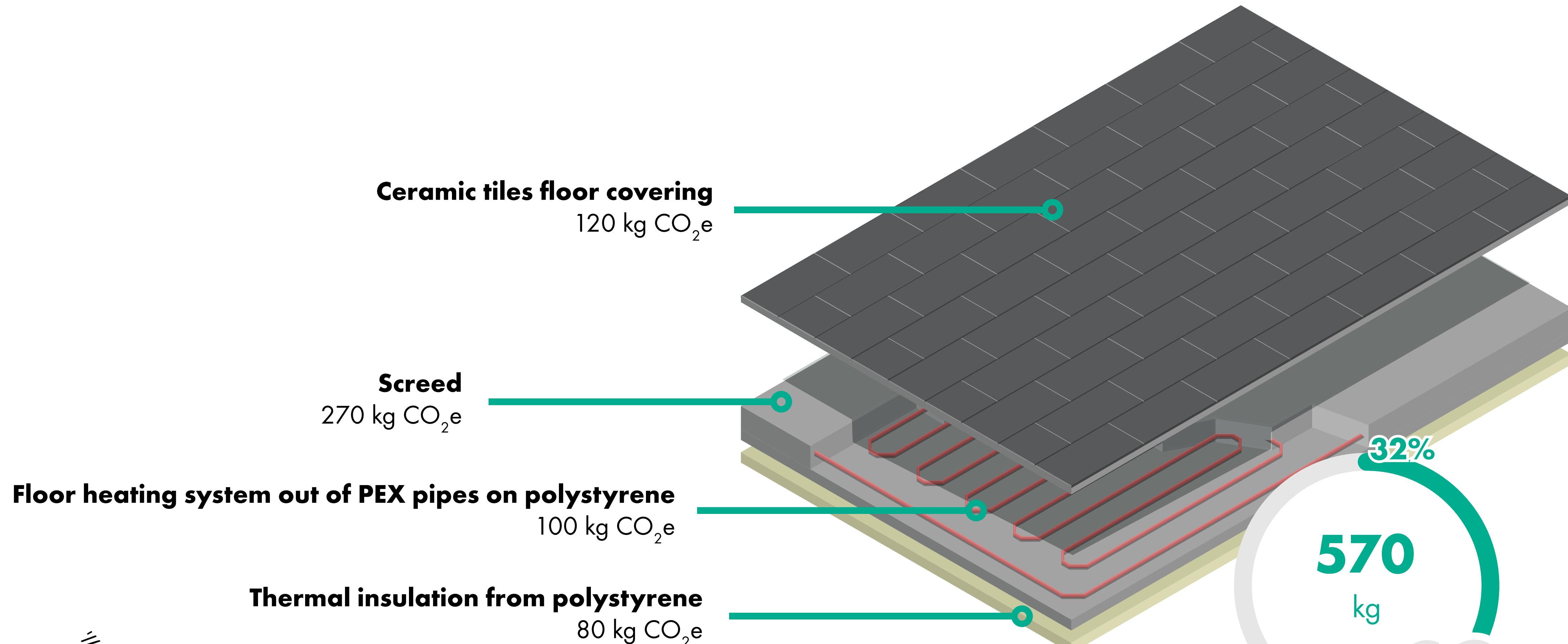




BACK



FLOOR

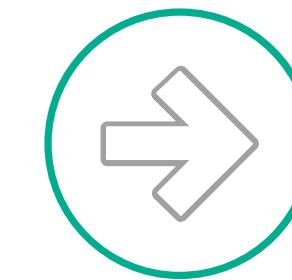


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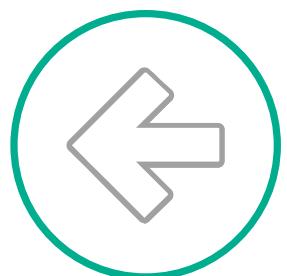
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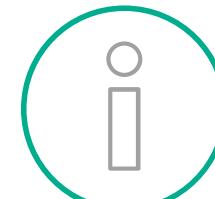


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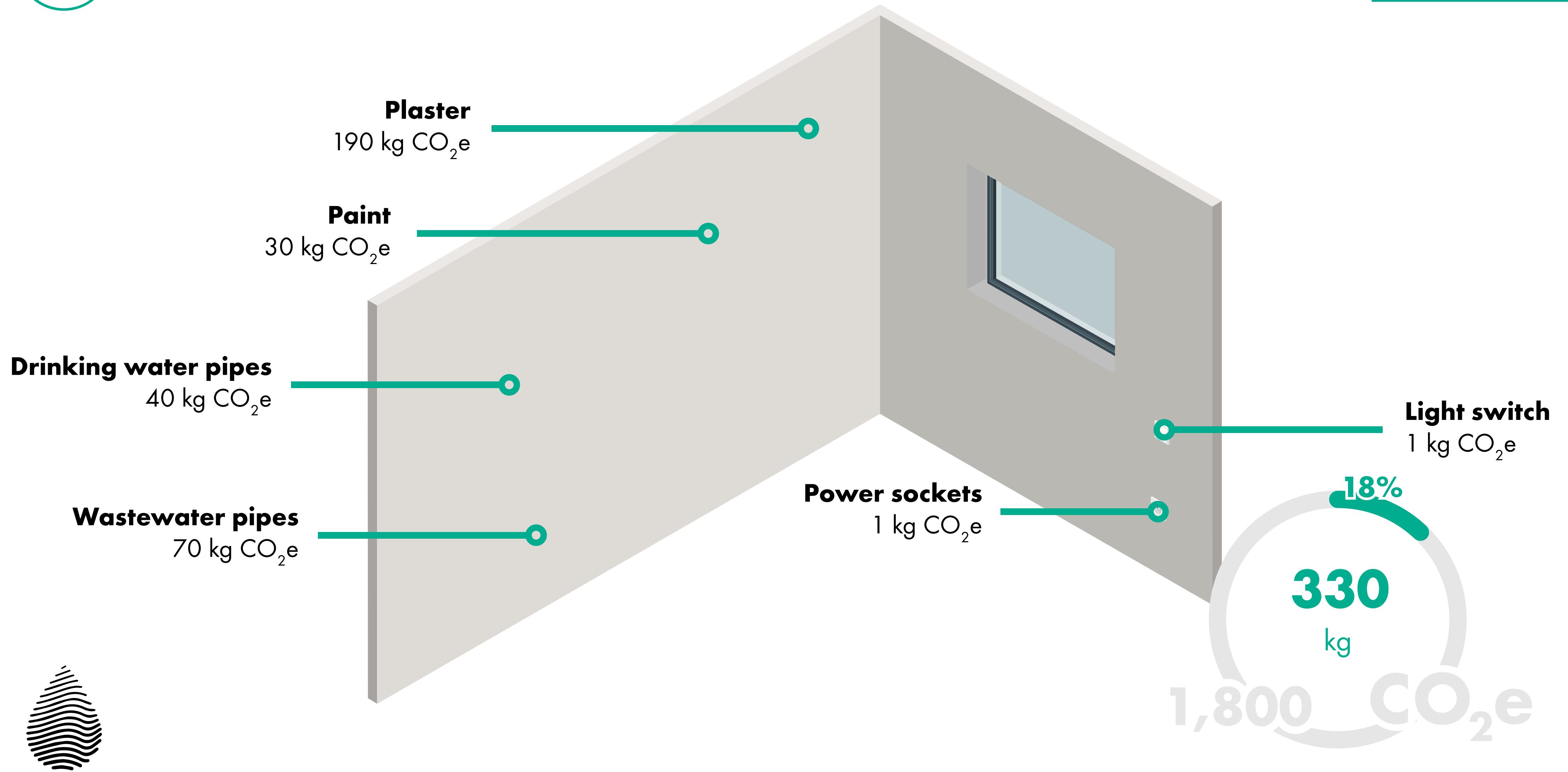




BACK



WALL

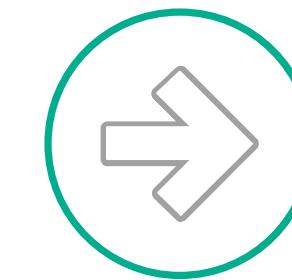


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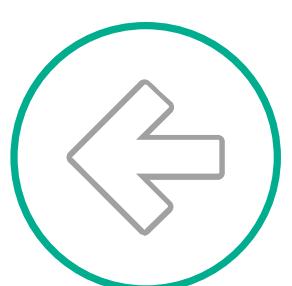
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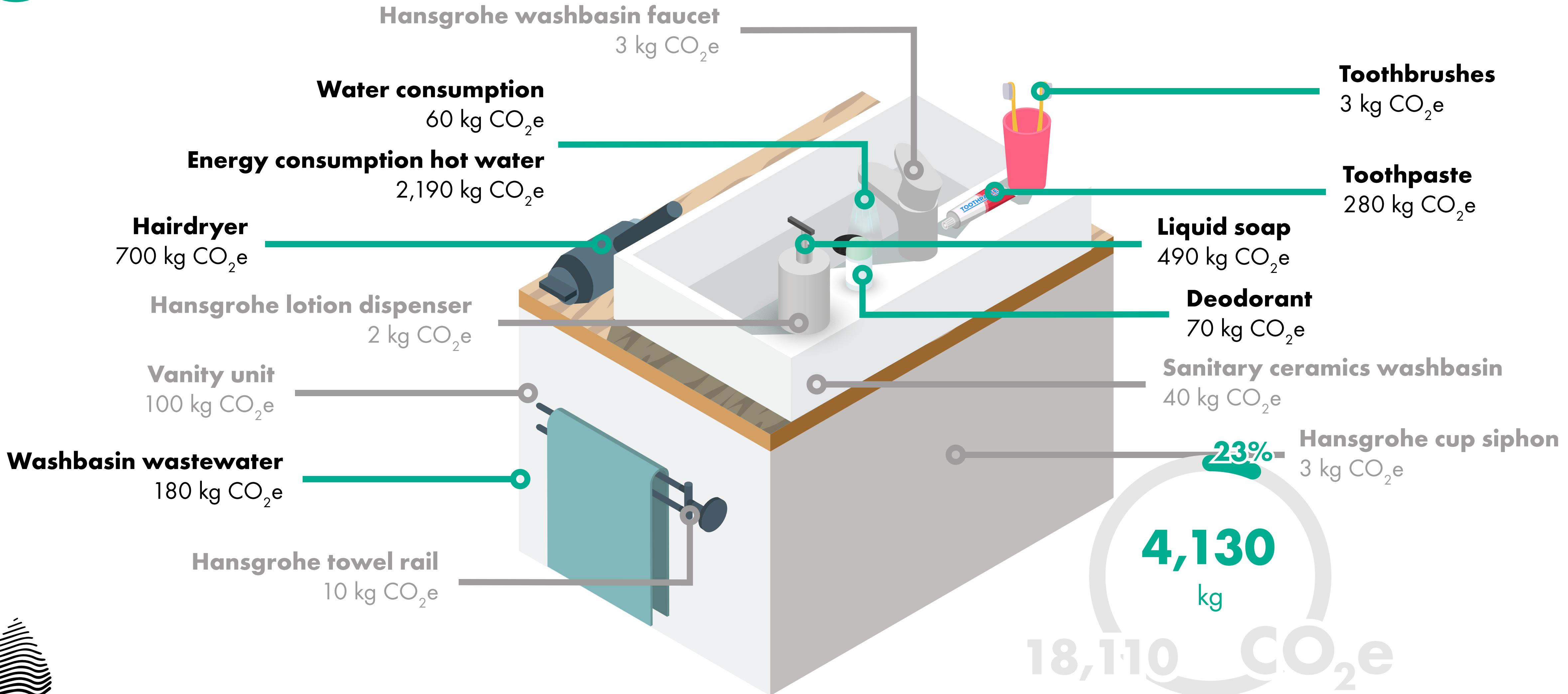




BACK



## WASH BASIN

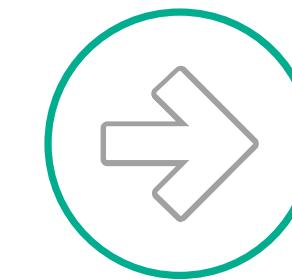
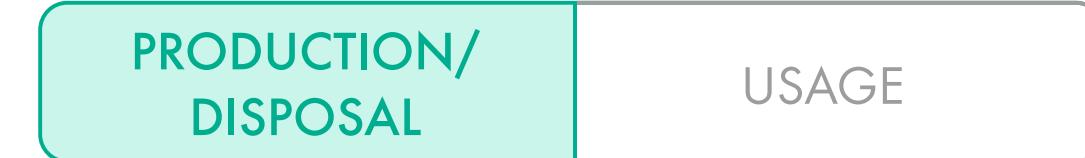


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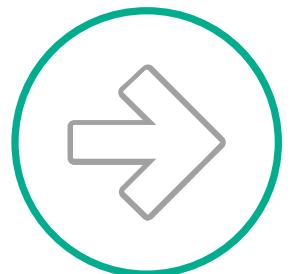
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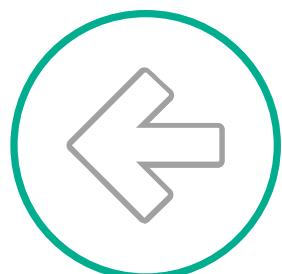
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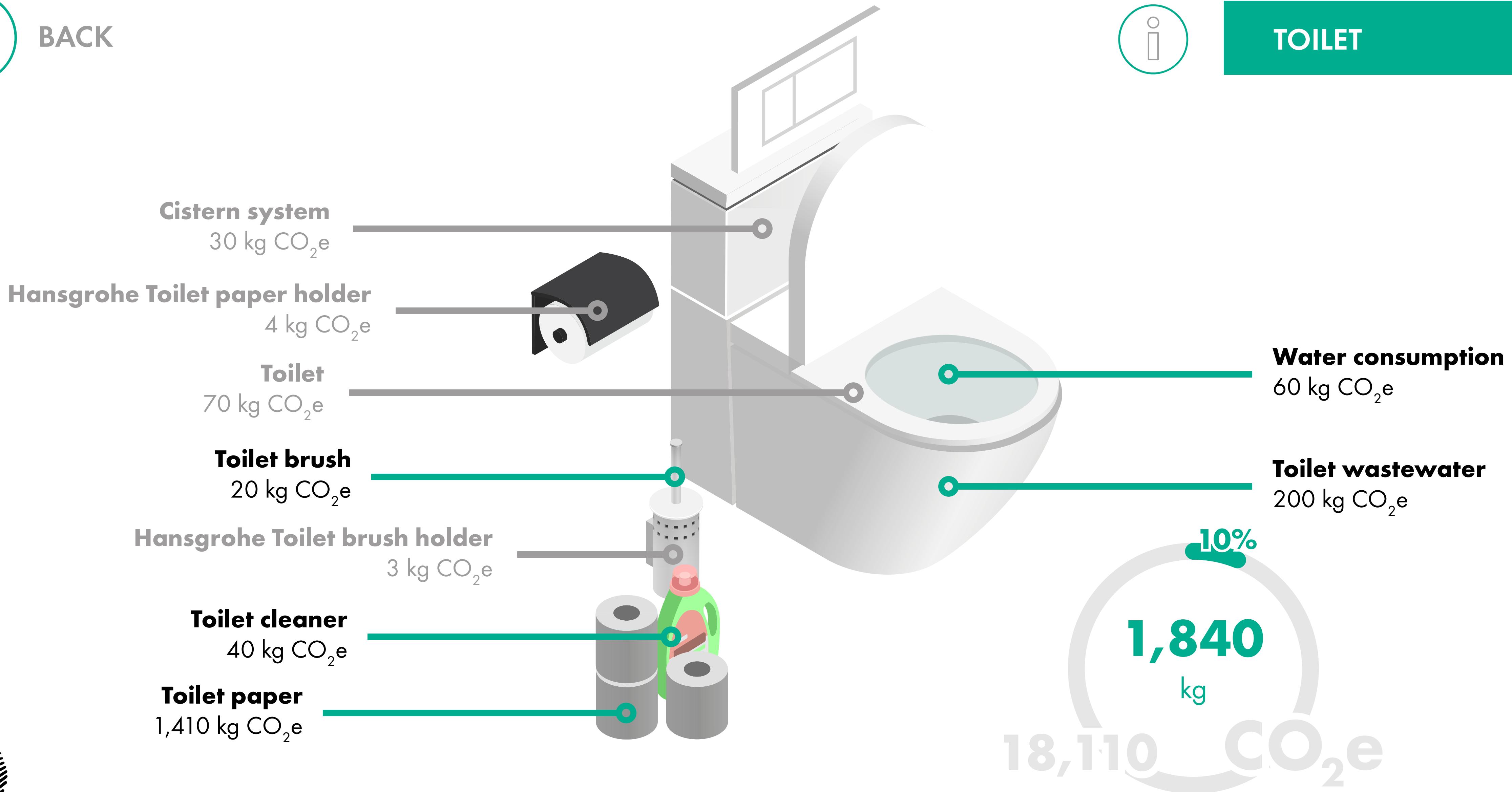




BACK



TOILET

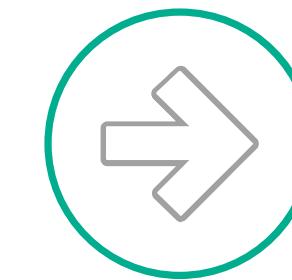


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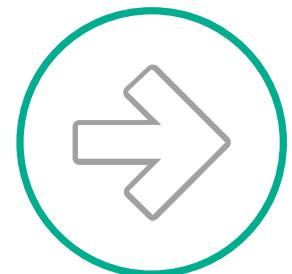
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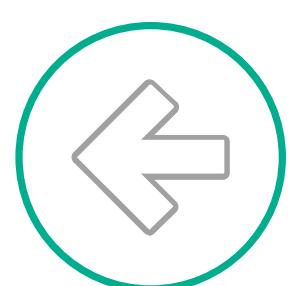
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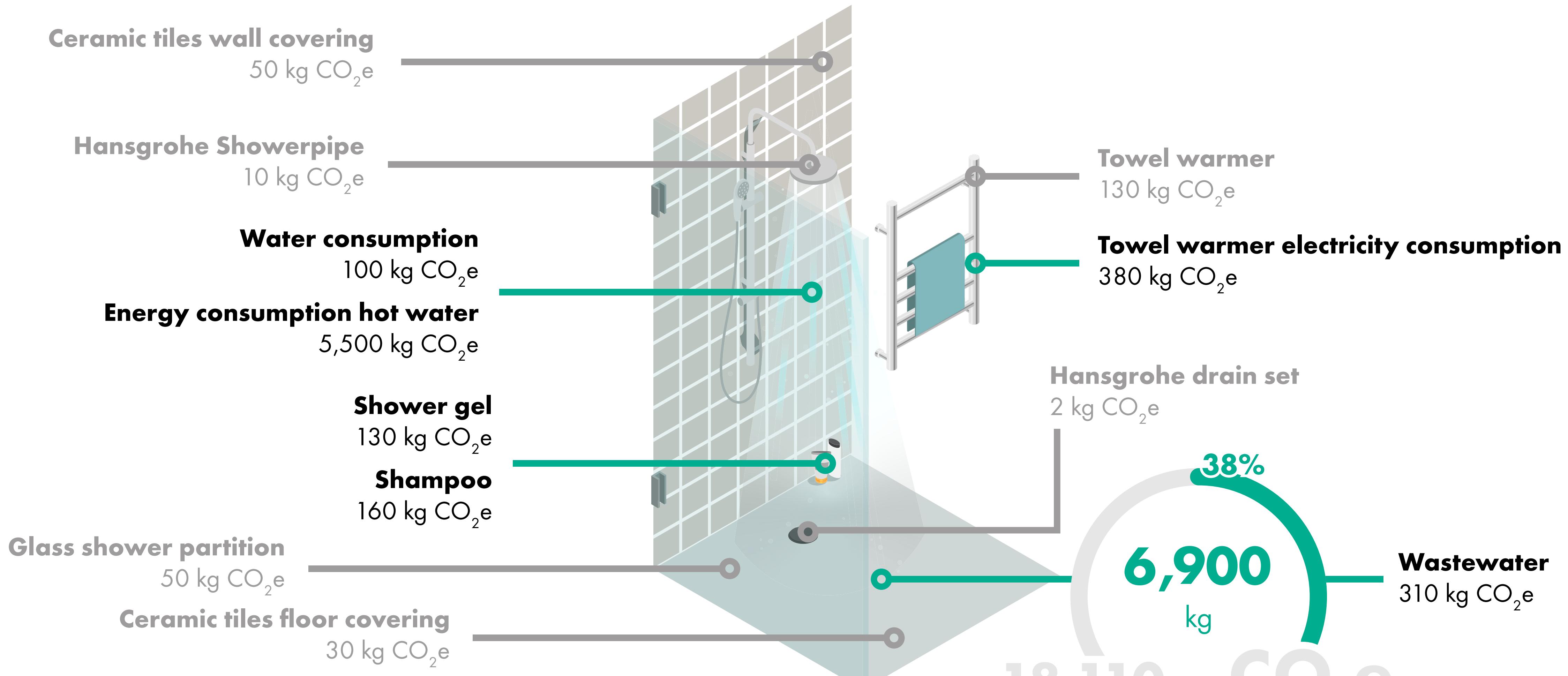




BACK



SHOWER

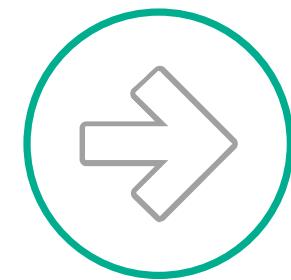
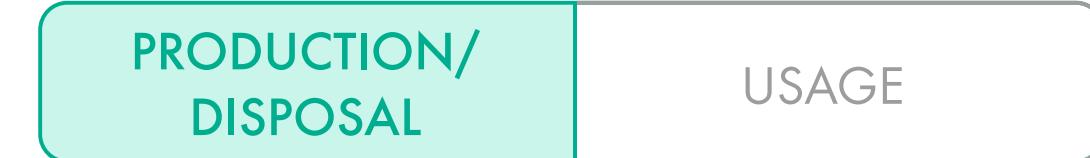


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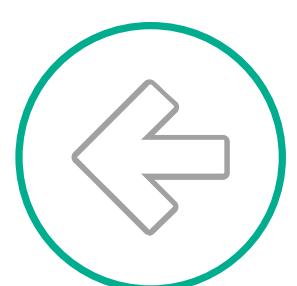
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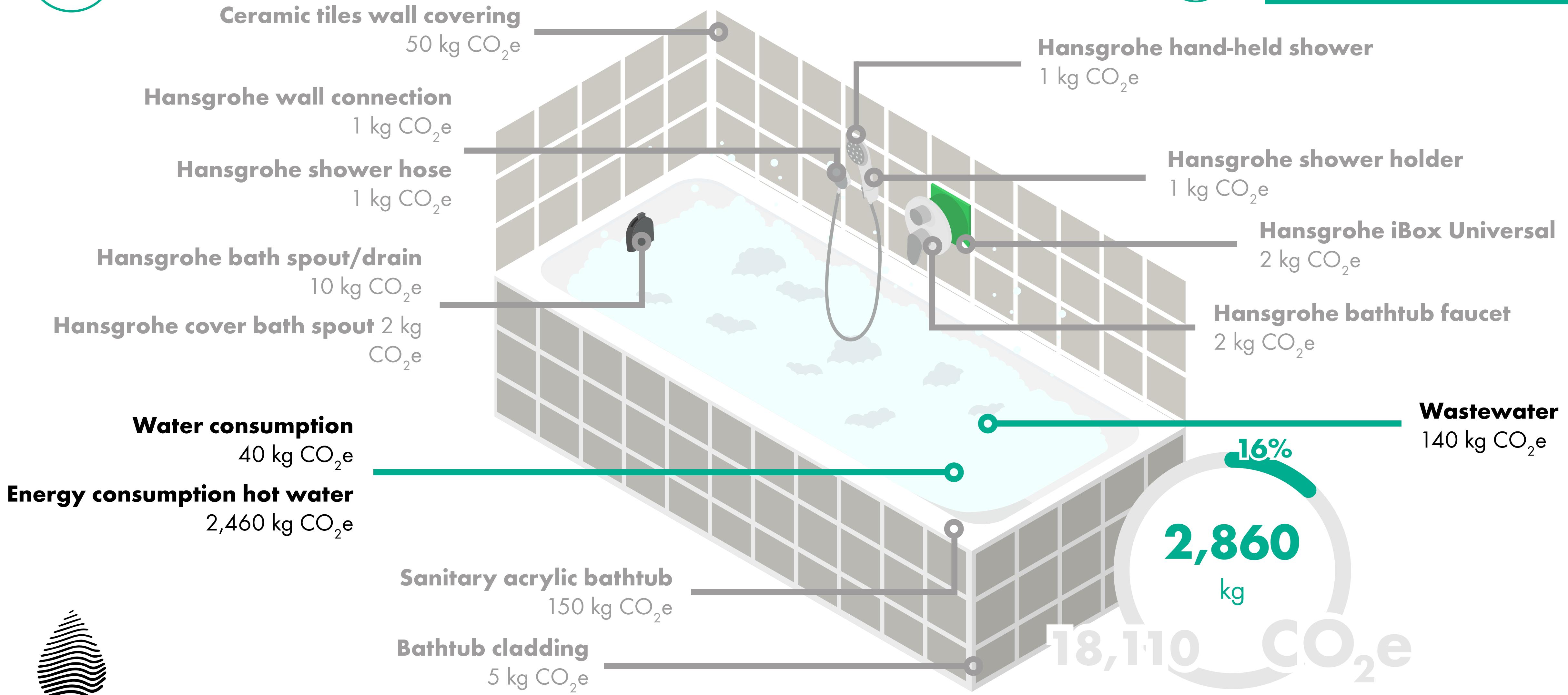




BACK



BATHTUB

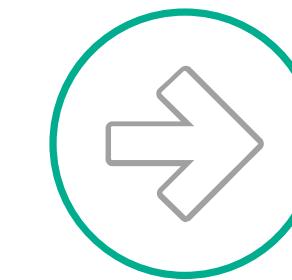


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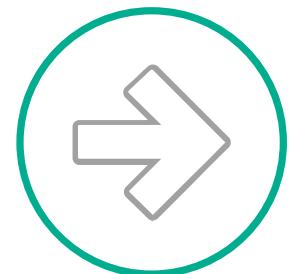
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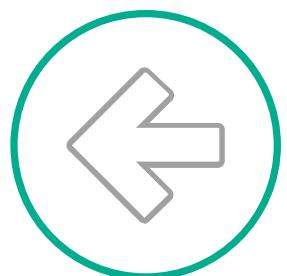
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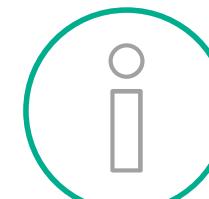


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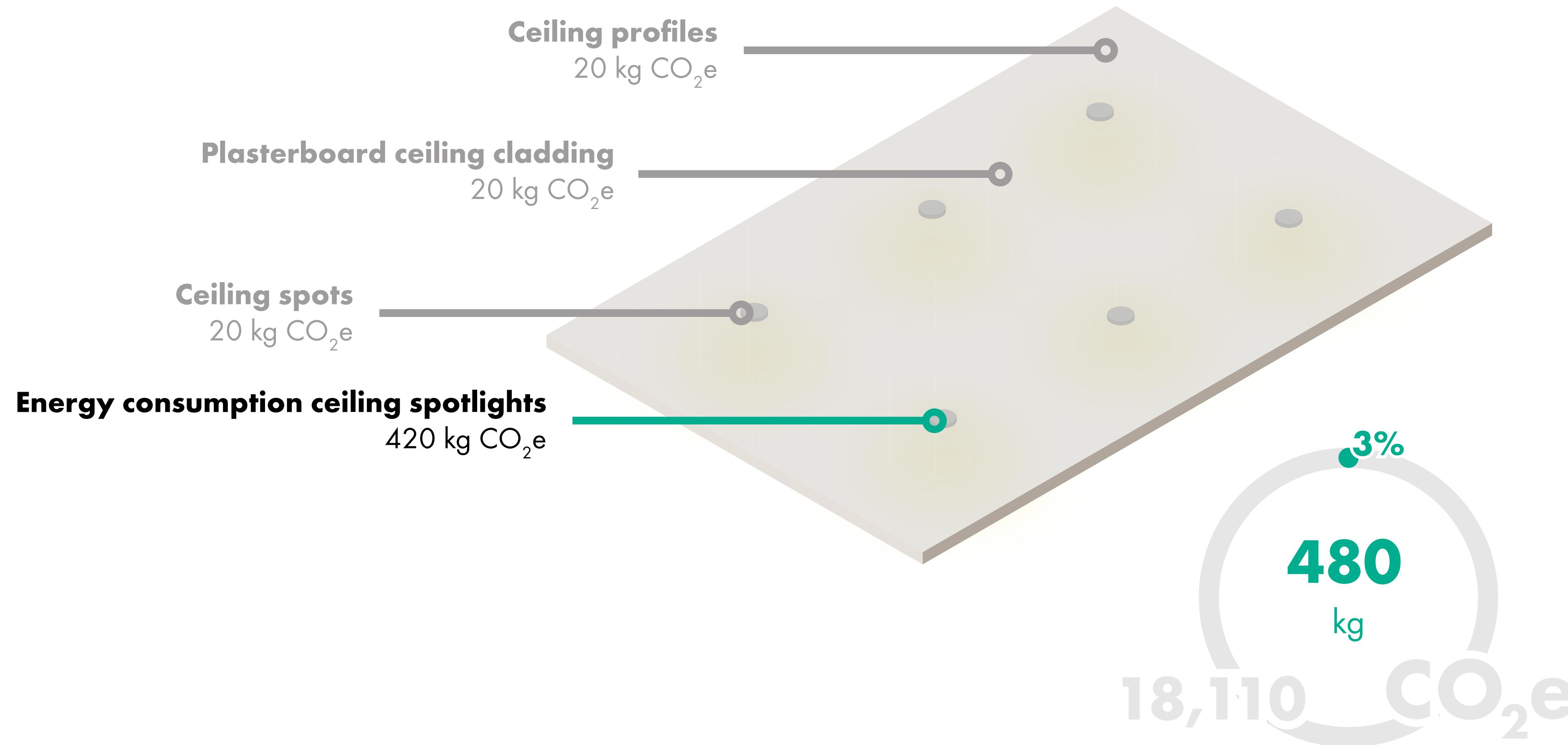




BACK



CEILING

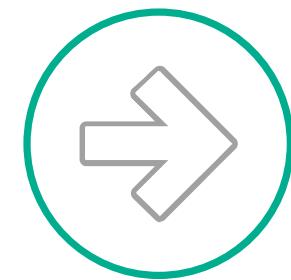
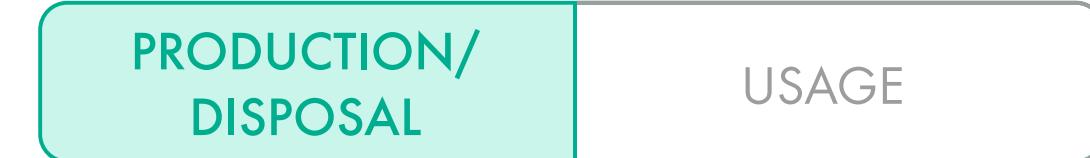


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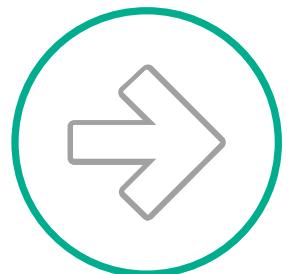
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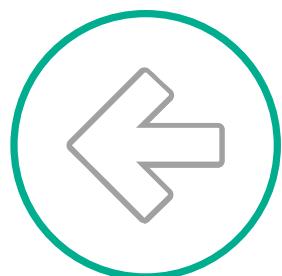
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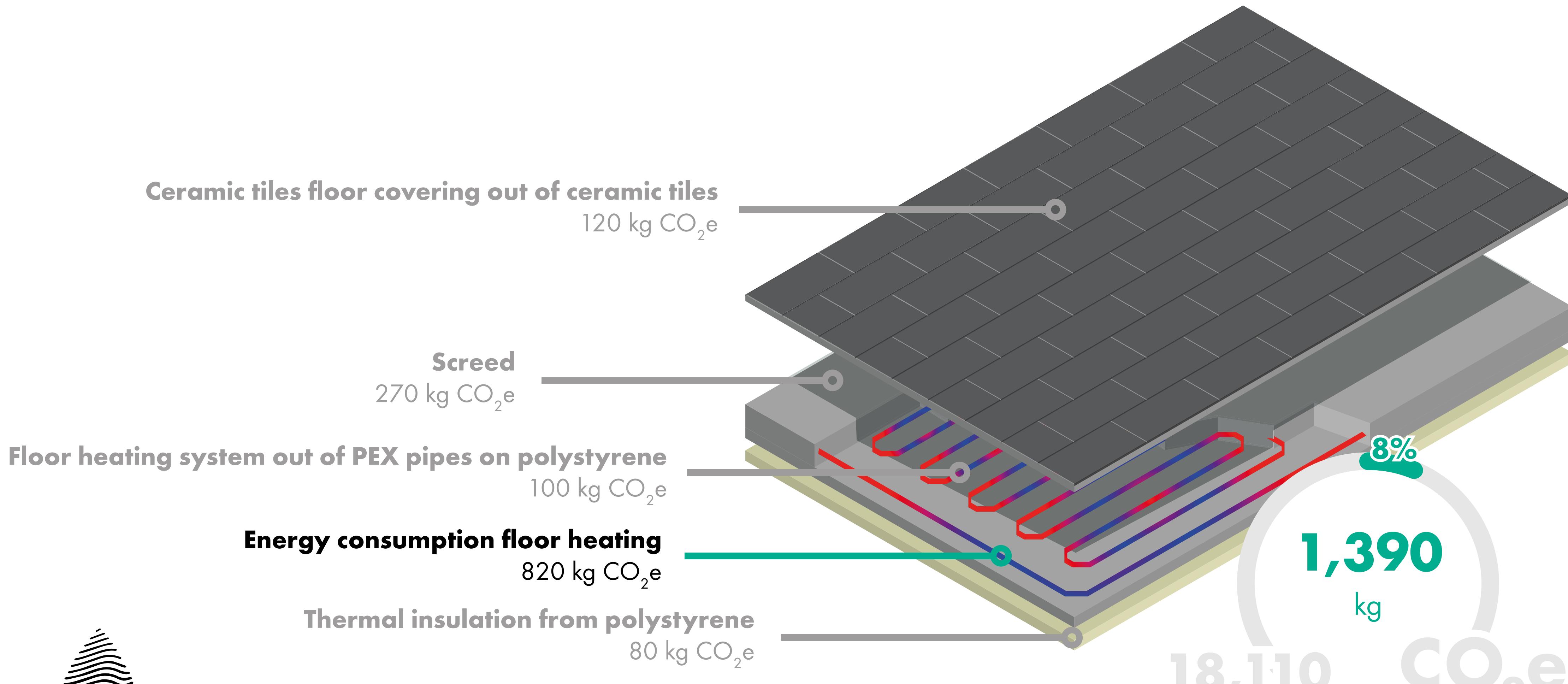




BACK



FLOOR

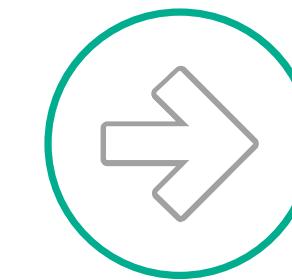
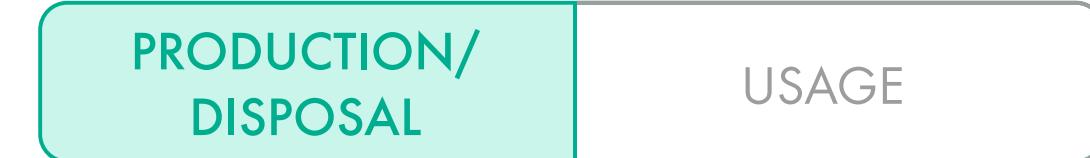


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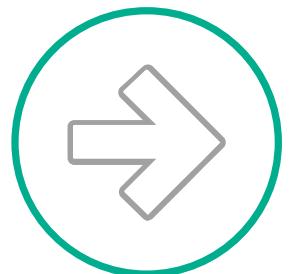
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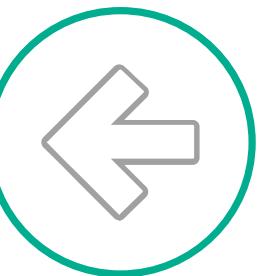
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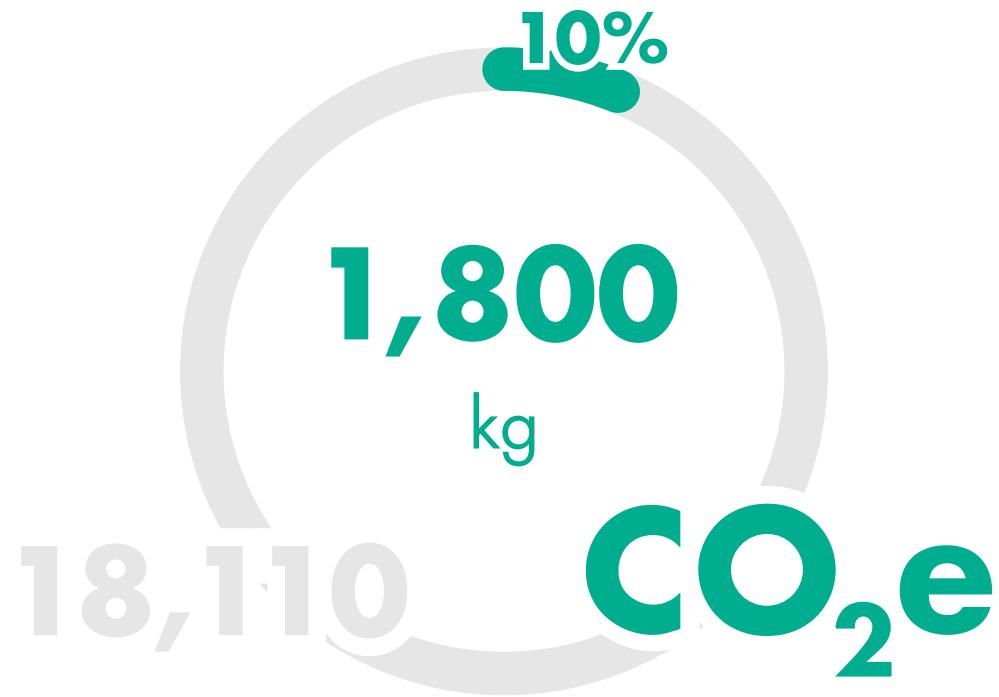


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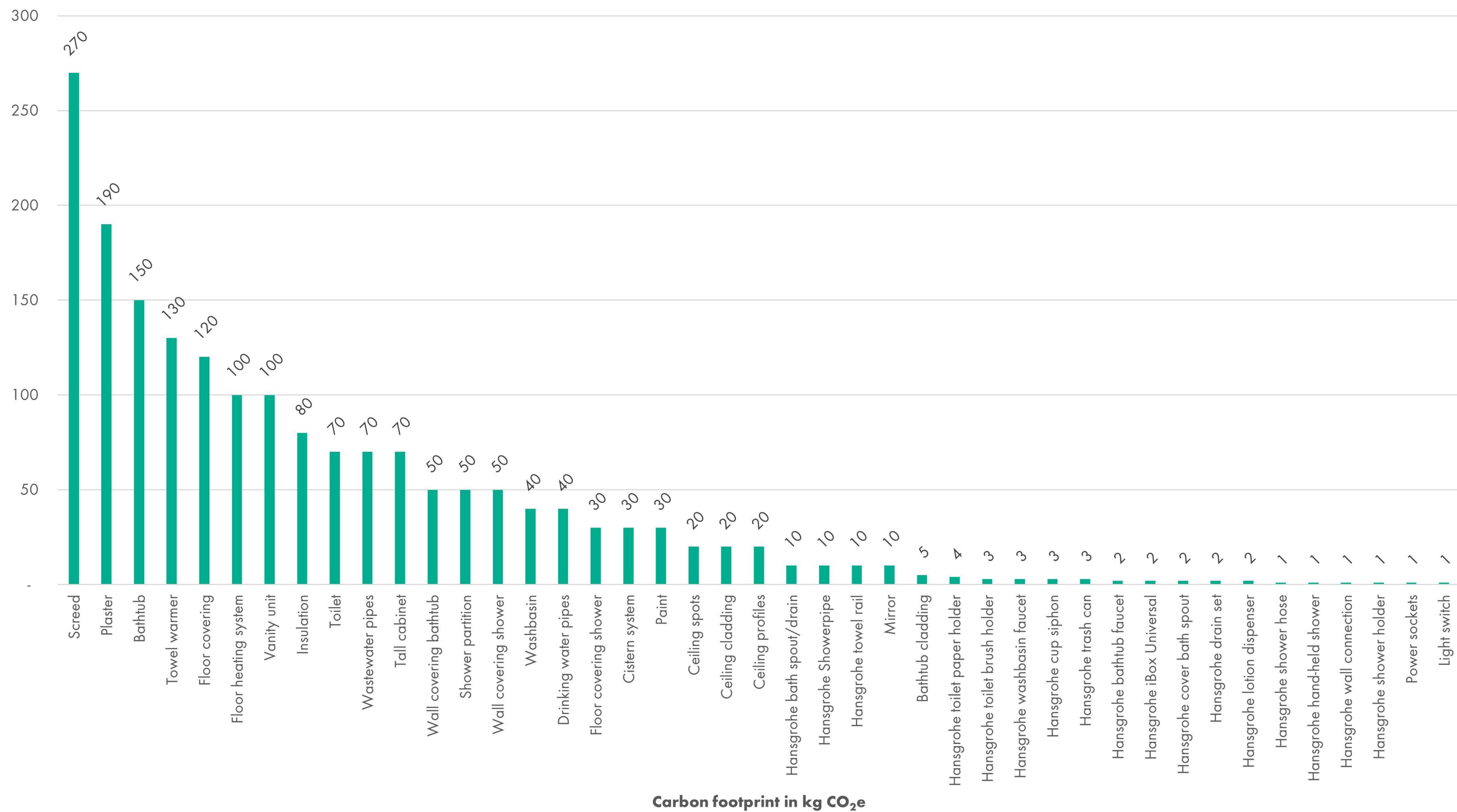




BACK



OVERVIEW

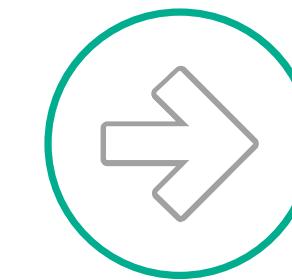


# Info on how to use the file

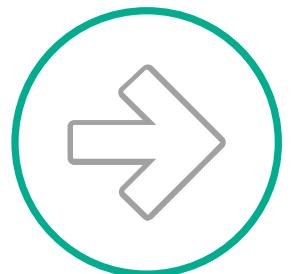
INSTRUCTIONS

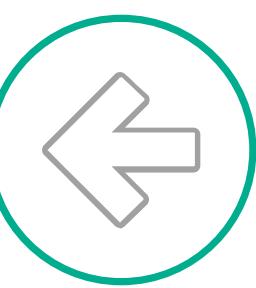
This is an interactive PDF that responds to user input. Therefore, avoid scrolling and do not click in the blank areas to get a correct display and navigation. Only use the buttons provided for this purpose.

These are as follows:

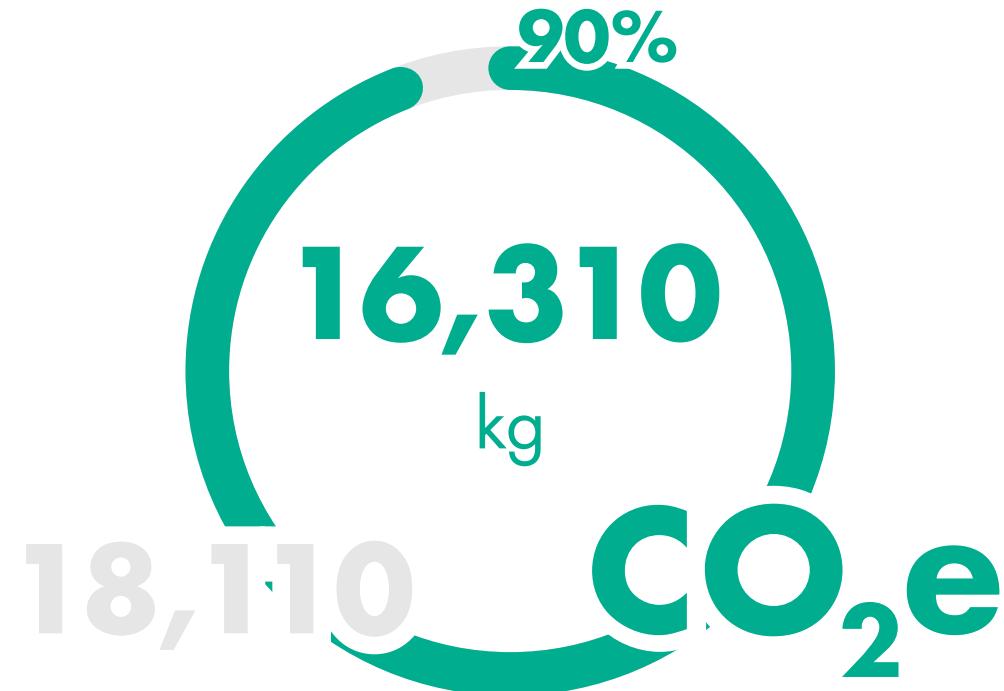


NEXT

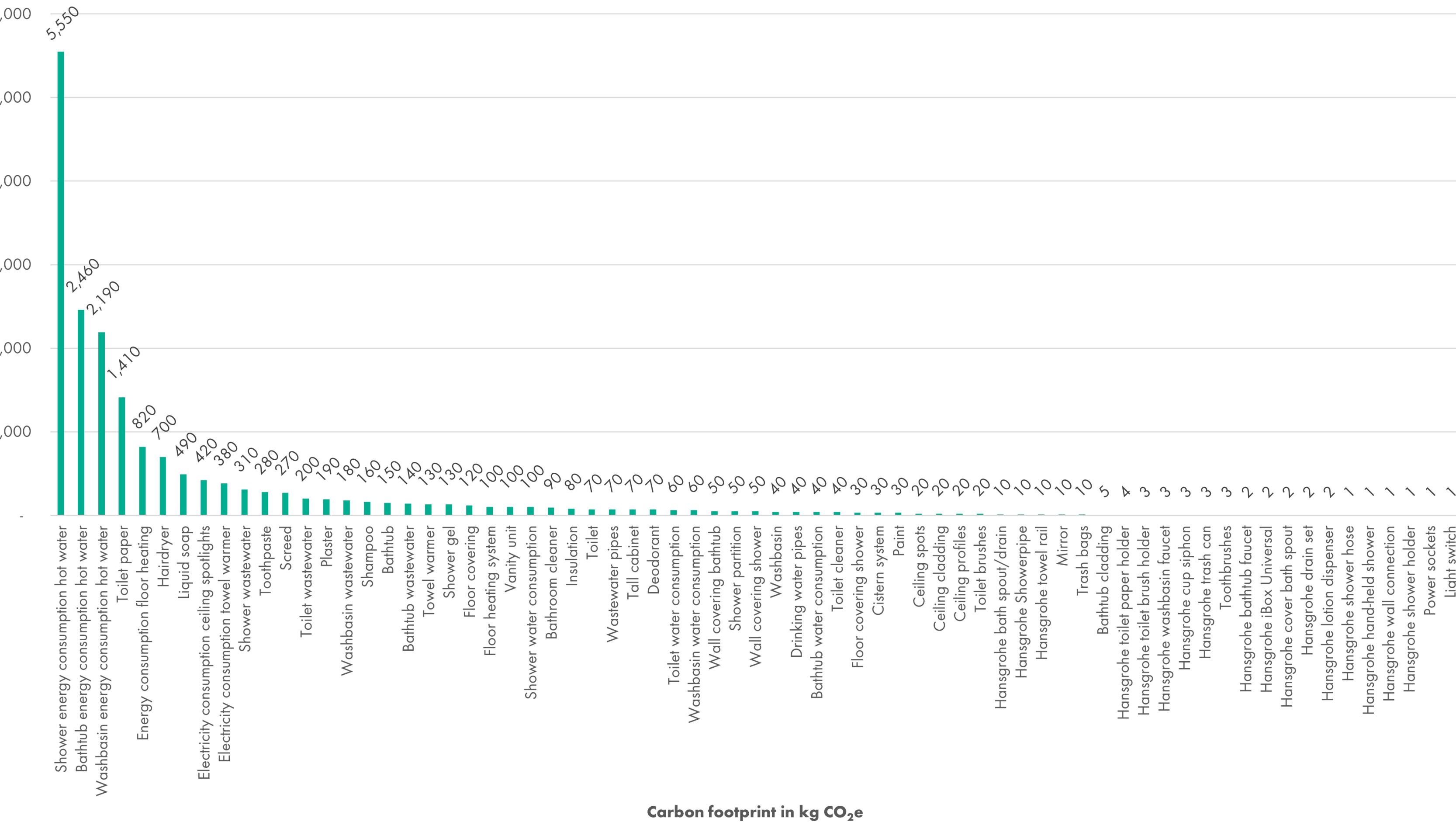




BACK



OVERVIEW

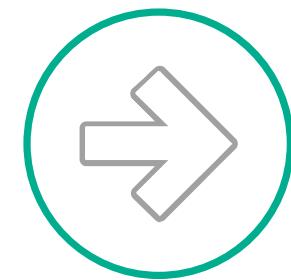
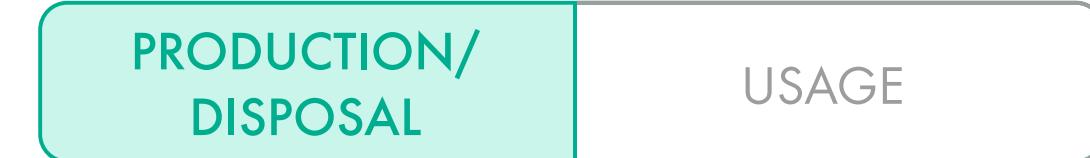


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INSTRUCTIONS

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These are as follows:



NEXT

