

Torno Chair Upholstered Back

by +Halle



The total estimated climate emission

280 kg CO2-e

Potential impact of missing data

Best case:	230	Kg CO2-e	-18%
Worst case:	360	Kg CO2-e	29%

01/04/2025

Verified by:

Pablo Villaizan Marin, MSc, Engineering - MÅLBAR

Claudia Anselmi, MSc, Engineering - MÅLBAR

Not a 3rd party verification

DISCLAIMER

Standard for calculation

This climate footprint report is calculated according to EUs rules for Product Environmental Footprint (PEF). When data was not available from the brand-owner, conservative estimates has been applied. All phases of the product lifecycle are included in the calculation. For the phases after factory-gate; Use Phase and Disposal conservative estimates are applied, build from the PEF rules. Specifically, the Disposal part is calculated based on an EU average. Målbar only report on Climate Impact.

The data sources behind these calculations are: **EcoInvent 3.8** and **EF 3.0 PEF** data as well as **PEF compliant LCA data**. (read more here: www.maalbar.dk/transparency/)

Method of data application

This report is generated by using MÅLBAR's Climate Screening Tool with the brand-owner firstly performing a self-assessment afterwards going through the VERIFICATION Process in Målbar. (Read more here: www.maalbar.dk/verification/)

Communication of results

The results in this report, is not intended for communication towards the private consumer but only for Professional customers.

Responsibility of data

It is the sole responsibility of the Brand Owner concerning all Input data (including: Material weights, Packaging weight and dimensions, Origins of production, origins of material, Transport information and Warehouse and Retail information). With the verification of this report, Målbar has manually controlled these data towards the normal-field of data for this product type and questioned the Brand Owner for outliers before completing this report.

Validity of report

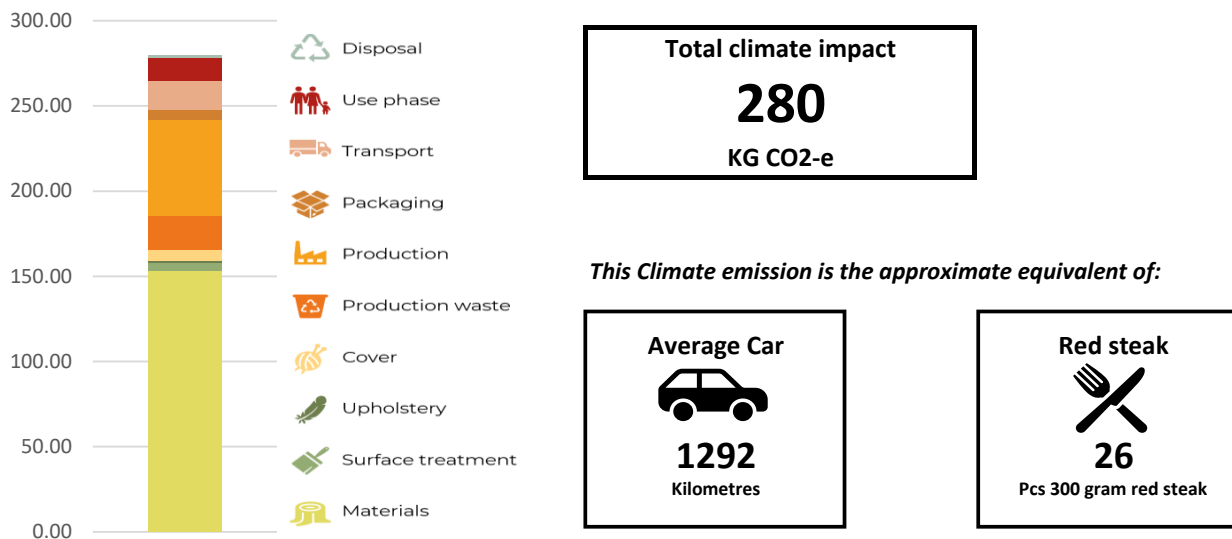
The results of this report is valid for 1 year from the verification date.

Software version

v. 2.9703

Climate emissions of final product

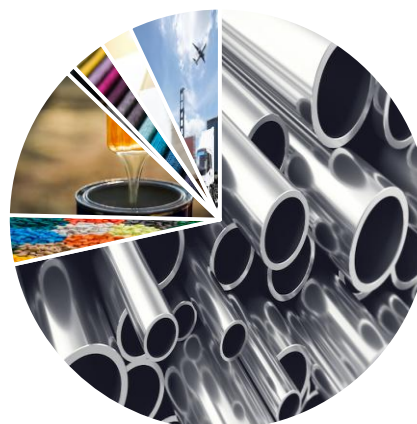
The complete LCA-screening (cradle-to-grave) of your product can be seen below. The total emissions with a range reflecting the uncertainty of data, based on inputs. All life-cycle-stages have been presented individually and their contribution can be seen in the column. Furthermore, a comparison of relatable goods or activates have been presented correlating with the total climate emission of the product.



Material group emissions*

Presented below are the different material groups in the product and their estimated contribution. Included are all upstream transportation and processes on the materials along with production, production waste and waste scenarios, in order to better understand which material group contributes the most in the product.

Group	Total impact	
Solid Wood	0.00 kg CO2eq	0%
Wood based board	0.00 kg CO2eq	0%
Metal	176.82 kg CO2eq	72%
Plastic	9.28 kg CO2eq	4%
Glass / Stone / Ceramics	0.00 kg CO2eq	0%
Surface finish & chemicals	29.25 kg CO2eq	12%
Upholstery	1.73 kg CO2eq	1%
Cover	6.66 kg CO2eq	3%
Electronic components	0.00 kg CO2eq	0%
Packaging	6.06 kg CO2eq	2%
Transport & logistics	17.22 kg CO2eq	7%

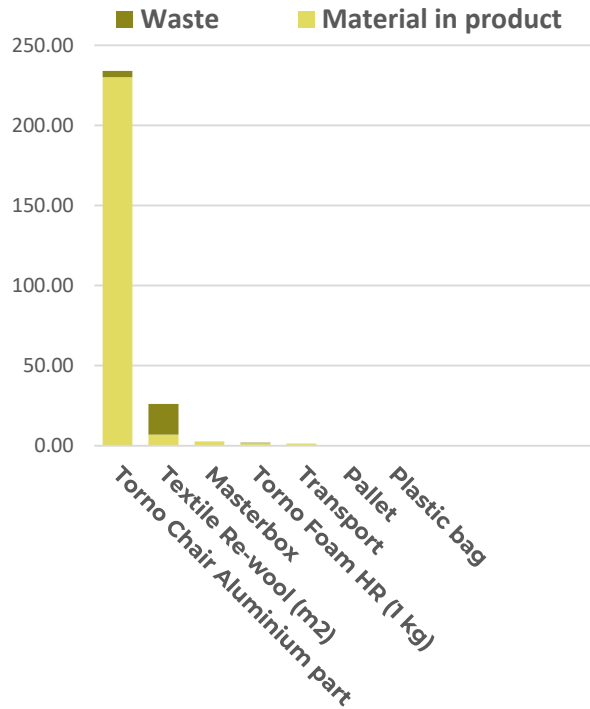


*) The values presented here, is total emission pr material group (incl. material, production, material-transport and waste,)

Specific material element emissions*

Below is an overview of the emission of the most emitting elements in the product. Each element is visually divided between the emission from the amount of material in the product and it's associated waste-emission. Included are the material and production waste with production processes, transportation and disposal scenarios. This gives an overview of each specific material versus waste.

Element	Total impact
Torno Chair Aluminium part	233.95 kg CO ₂ eq
Textile Re-wool (m2)	26.04 kg CO ₂ eq
Masterbox	2.72 kg CO ₂ eq
Torno Foam HR (1 kg)	1.95 kg CO ₂ eq
Transport	1.32 kg CO ₂ eq
Pallet	0.06 kg CO ₂ eq
Plastic bag	0.04 kg CO ₂ eq

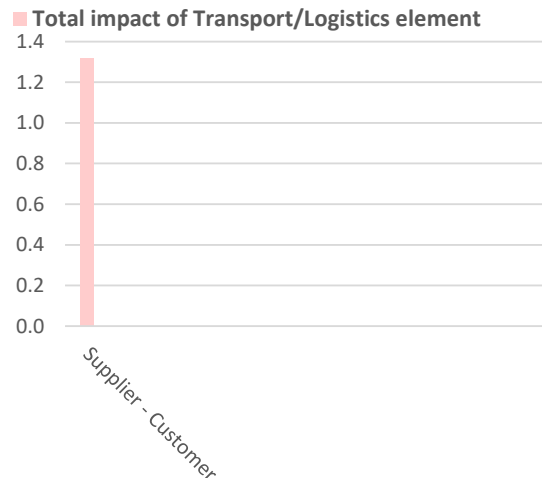


*) The values presented here, is total emission pr element (incl. Material, production, transport, Waste)

Transport emissions of final product*

Product transportation can be seen below, divided into the different transport legs, correlating with the route of the final product.

Element	Total impact
Supplier - Customer	1.32 kg CO ₂ eq



DATA QUALIFICATION

This LCA-screening is based on user-input data from the brand owner, along with average data in conformity with PEF. Where no user-input have been applied, conservative assumptions have been created.

Assumptions may include:

- Origin of Materials
- Origin of component production
- Additional material information (e.g. for textiles: D-tex values and treatment processes)
- Any Recycled or certified Sustainable content in each material is only included when sufficient documentation has been provided.
- Production waste amounts and handling of such.
- Transportation types and distances
- Waste handling of the product at end-of-life (EU average data)

It is possible for the Brand-owner to apply company specific data on a material or component-production by "onboarding" each individual production site into the system. This is referred to as primary process data and can cover a certain percentage of the total production-stage and part of the material-stage.

For this specific product:

0 % primary process data have been applied

100 % average process data have been applied

MÅLBAR



Målbar ApS

Nørre voldgade 6, 2.
1358 København K

Email: verify@maalbar.dk