

ENVIRONMENTAL PRODUCT DECLARATION

CROFTON (Bar Stool)

DESIGNED BY DANIEL SCHOFIELD



Please Wait to be Seated is committed to sustainability in the design and manufacture of products. This commitment has allowed us to differentiate our approach and processes in several development areas.

Please Wait to be Seated has chosen to provide Environmental Product Declarations for its products, to show the environmental impact through their Life Cycle.

For more details, please visit:
www.pleasewaittobeseated.com

Shown in the picture: Crofton Bar Stool in Nordic Pine

Disclaimer: This EPD was not written to support comparative assertions. EPDs are based on PCRs and different calculation models that are checked with our designers and manufacturers. The EPDs show the life cycle assessment and impact of products from different materials. The user should be aware of the certainty in the final results due to the quality of the source of the data in the study and software tool used to conduct the calculations.

ENVIRONMENTAL PRODUCT DECLARATION



Please Wait to be Seated A/S
Crofton Bar Stool EPD (Environmental Product Declaration)

This declaration is an environmental product declaration (EPD) which rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. EPDs are registered documents that communicate transparent and comparable information about the life-cycle environmental impact of products in a credible way. LCAs do not address the site-specific environmental impacts of raw materials involved in the product, nor are they meant to assess human health toxicity. EPDs can complement but not replace tools and certifications that are designed to address these impacts.

PRODUCT DEFINITION & PRODUCT DESCRIPTION

The CROFTON Stool collection gives an understated nod to elegant Asian design traditions whilst embracing honest, natural pinewood. Pine is one of the most common types of wood in the Nordics and it paves the way to working with local materials in the design of new Scandinavian furniture.

Designer: Fräg Woodall

COLOUR & MATERIAL

Frame: Nordic Pine, Black Stained Pinewood

MEASUREMENTS

Bar Stool: W40/D25,4/SH78 cm

ATTRIBUTE	VALUE
Product Category	Stool
Product Dimensions	SH: 78 cm x W: 40 cm x D: 25,4 cm
Product Mass	4.30 kg (9.47 lbs.)
Post-consumer recycled content	92%

Table 1: Reference product attributes

FUNCTIONAL UNIT

The functional unit is one unit of seating to seat one individual, maintained for a period of 15 years.

MATERIAL COMPOSITION

The material composition of the declared Please Wait to be Seated Crofton Bar Stool is given in Table 2.

MATERIAL	KG, PER CHAIR	LBS, PER CHAIR
Nordic Pine wood	3,20	6,20
Steel	0,360	0,79
Glue (value in KG)	0,018	0,03
Laquer-paint solved	0,74	1,63

Table 2: Reference product materials composition

ENVIRONMENTAL PRODUCT DECLARATION

Please Wait to be Seated A/S
Crofton Bar Stool EPD (Environmental Product Declaration)



IMPACT ASSESMENT CATEGORIES

Main emission sources (pr material group) calculated in KG is given in Table 3.

MATERIAL	TOTAL IMPACT, KG CO2 EMISSION
Wood (Solid Wood)	3,15 KG Co2-e
Packaging	1,78 KG Co2-e
Surface Finish & Chemicals	3,18 KG Co2-e
Metal	1,59 KG Co2-e

Table 3: Main emission sources (pr material group)

LIFE CYCLE STAGES

The life cycle stages are summarized in the flow diagram shown in the figure below.
A cradle-to-gate analysis was conducted for this EPD.



- Materials acquisition and pre-processing starts when the material is extracted from nature and ends when the material reaches the production facility or service delivery stage.
- The production stage is a cradle-to-gate stage which is an assessment of a partial product life cycle from resource extraction (cradle) to the factory gate, before it is transported to the consumer. This process starts with the product components entering the production facility and ends with the final product until the delivery stage included.
- Product distribution and storage are included in the next stage, along with product usage and maintenance. This use stage begins when the consumer receive the product and it includes repair in the next 2 years of usage, after the purchase.
- The end-of-life stage starts when the product is ready for disposal, which includes the return to nature, or transformed to be a recycled or reused one.

IMPACT ASSESMENT - CLIMATE BAR

The Målbar tool calculates the total climate footprint emitted from the product. This is calculated according to the EU Product Environmental Footprint (EU PEF) rules and presented according to EN 14067 (Carbon footprints of products). The Carbon Footprint is the total quantity of greenhouse gas (GHG) emissions associated with the full lifecycle of the product.

In this case, that includes the impacts associated with raw materials and emissions from manufacturing (materials and resources), transport, in use (cleaning) impacts and impacts at end of life (reuse, recycling, incineration, landfill etc.). The tool calculations are very accurate and will also reflect the geographical location but they are based on average material and process data.

Details about Målbar: <https://www.maalbar.dk/>

ENVIRONMENTAL PRODUCT DECLARATION



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Crofton Bar Stool EPD (Environmental Product Declaration)

IMPACT ASSESMENT - CLIMATE BAR DATA

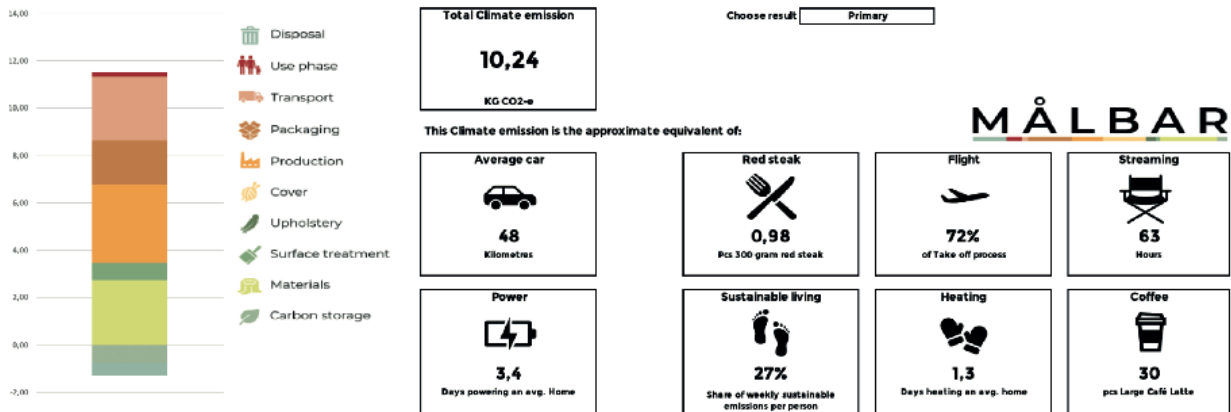


Table 4: Total Climate Emission

Main emission sources (pr material group)

Group	Total impact
Solid Wood	3,76 kg CO ₂ -e
Plastic	0,00 kg CO ₂ -e
Cover	0,00 kg CO ₂ -e
Standard Components	0,00 kg CO ₂ -e
Electronics	0,00 kg CO ₂ -e
Metal	1,59 kg CO ₂ -e
Packaging	1,75 kg CO ₂ -e
Upholstery	0,00 kg CO ₂ -e
Wood Based Board	0,00 kg CO ₂ -e
Surface Finish & Chemicals	0,81 kg CO ₂ -e
Class / Stone / Ceramics	0,00 kg CO ₂ -e

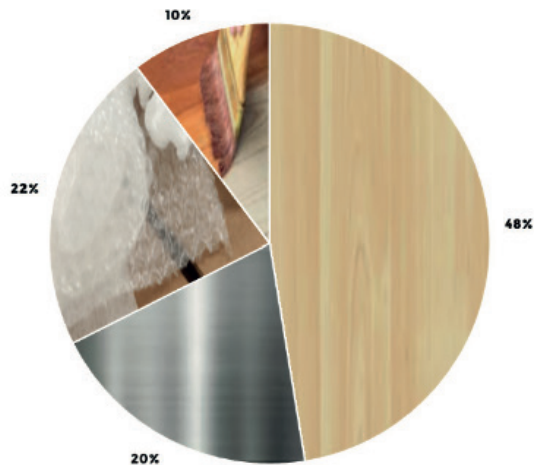


Table 5: Main emission sources (pr material group)

Main emission sources (pr element)

Element	Material	Total impact
Solid Wood 1	Hardwood not sustainable	3,76 kg CO ₂ -e
Transport leg 1	Container-Transport	2,67 kg CO ₂ -e
Metal 1	Steel, tubes/profiles	1,59 kg CO ₂ -e
Main packaging	Cardboard box, no print	1,10 kg CO ₂ -e
Surface finish,Chemicals1	Lacquer/paint solvent on wood,	0,77 kg CO ₂ -e
Pallet	Odd-size pallet, wood	0,60 kg CO ₂ -e
Cleaning & maintenance	Cleaning & maintenance	0,22 kg CO ₂ -e
Packaging materials2	Cardboard box, no print	0,06 kg CO ₂ -e
Surface finish,Chemicals2	Glue average value kg	0,04 kg CO ₂ -e

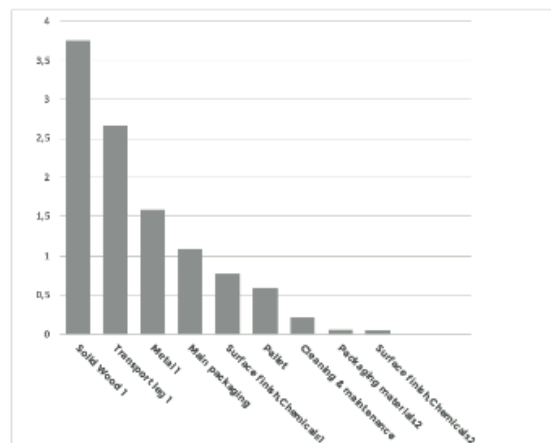


Table 6: Main emission sources

ENVIRONMENTAL PRODUCT DECLARATION



Please Wait to be Seated A/S
Crofton Bar Stool EPD (Environmental Product Declaration)

REFERENCES

EU PEF (2012) European Commission: Institute for Environment and Sustainability H08 Sustainability Assessment Unit, Product Environmental Footprint (PEF) Guide.

ISO. (2006) ISO 14044: Environmental management - Life Cycle assessment - Requirements and guidelines.

CONTACT INFORMATION

PLEASE WAIT to be SEATED

PLEASE WAIT to be SEATED A/S
Frederiksgade 1, 1. floor
1265 Copenhagen K
Denmark
P: +45 31 55 26 00
E: sales@pleasewaittobeseated.dk