Carbon Footprint Report 2024

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Date:	7/4/2025

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Summary

Total KOW Footprint 2024	104,763
Offset by partners	2,029
Remaining emissions to offset by KOW	**102,735**

Kingdom of Wow Footprint

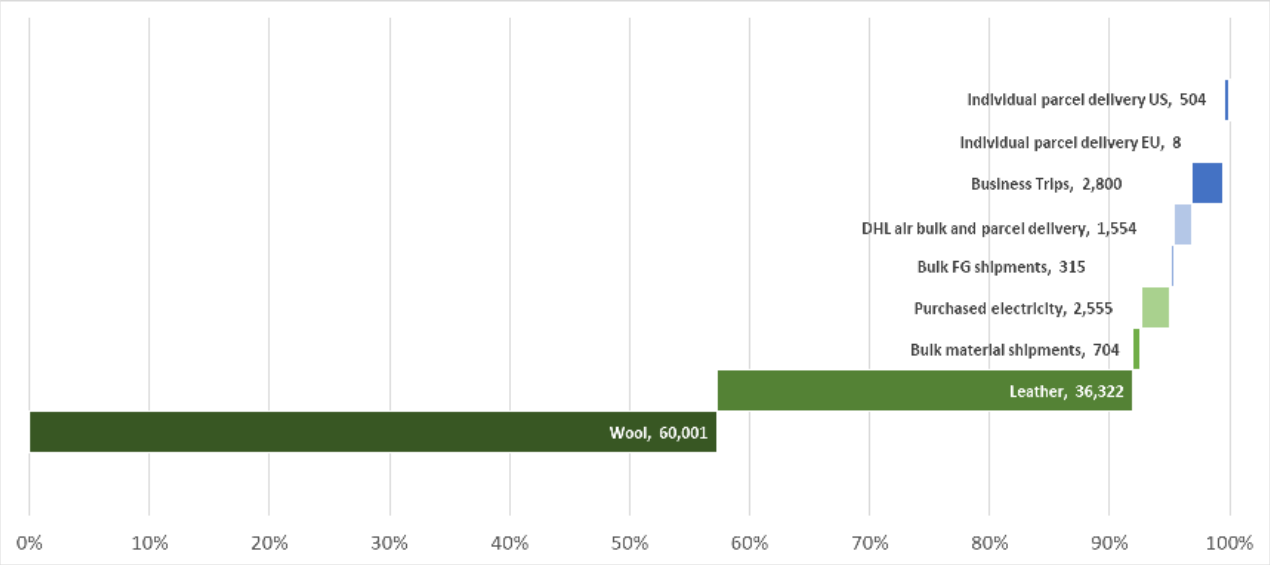
Carbon Footprint KOW Lifestyle Manufacturing			what and how	Carbon Footprint	U/M
KLC	**Scope 3 Upstream**	Wool	Footprint per kg of wool, multiplied by kg bought	60,001	KG CO_2e
KLC	**Scope 3 Upstream**	Leather	Footprint per m^2 of leather, multiplied by m^2 bought	36,322	KG CO_2e
KLC	**Scope 3 Upstream**	Bulk material shipments	List out all incoming shipments modality, origin, weight run through calculator	704	KG CO_2e
KLC	**Scope 1 Direct**	Company Facilities	Negligible emissions from company processes	-	
KLC	**Scope 2**	Purchased electricity	Add up all electricity bills for 2024 Multiply the kWh with the estimated Thai emissions per kWh, as this is where most power comes from	2,555	KG CO_2e
KLC	**Scope 3 Downstream**	Shipments to Customer	The export shipments are included as Scope 3 Upstream for KLE	-	

Carbon Footprint KOW Lifestyle Europe				Carbon Footprint	U/M
KLE	**Scope 3 Upstream**	Bulk FG shipments	List out incoming shipments, modality, origin, weight run through calculator	315	KG CO_2e
KLE	**Scope 3 Upstream**	DHL air bulk and parcel delivery	Use the DHL report on parcel delivery emissions from SR to different locations in the world take these calculations to come to a CAM fulfilment footprint	1,554	KG CO_2e
	Scope 3 Upstream	Business Trips		2,800	
KLE	**Scope 1**	Company facilities	Negligible emissions from company processes	-	
KLE	**Scope 2**	Purchased electricity	Negligible purchase of electricity	-	
KLE	**Scope 3 Downstream**	Individual parcel delivery EU	Calculate parcel delivery emissions from EU warehouse to locations use this to estimate average delivery emissions run through calculator	8	KG CO_2e
KLE	**Scope 3 Downstream**	Individual parcel delivery US	Take the US parcel average multiplied by number of sales and returns	504	KG CO_2e

Offset by Upstream and Downstream Partners

	Offset by partners				
KLE	**Scope 3 Upstream**	DHL air bulk and parcel delivery	DHL GOGREEN - See certificate	555	KG CO_2e
KLE	**Scope 3 Upstream**	Business Trip	Singapore Airlines Offset	1,400	KG CO_2e
KLE	**Scope 3 Downstream**	Individual parcel delivery EU	Etsy	1	KG CO_2e
KLE	**Scope 3 Downstream**	Individual parcel delivery EU	Avocadostore	2	KG CO_2e
KLE	**Scope 3 Downstream**	Individual parcel delivery US	Etsy	71	KG CO_2e

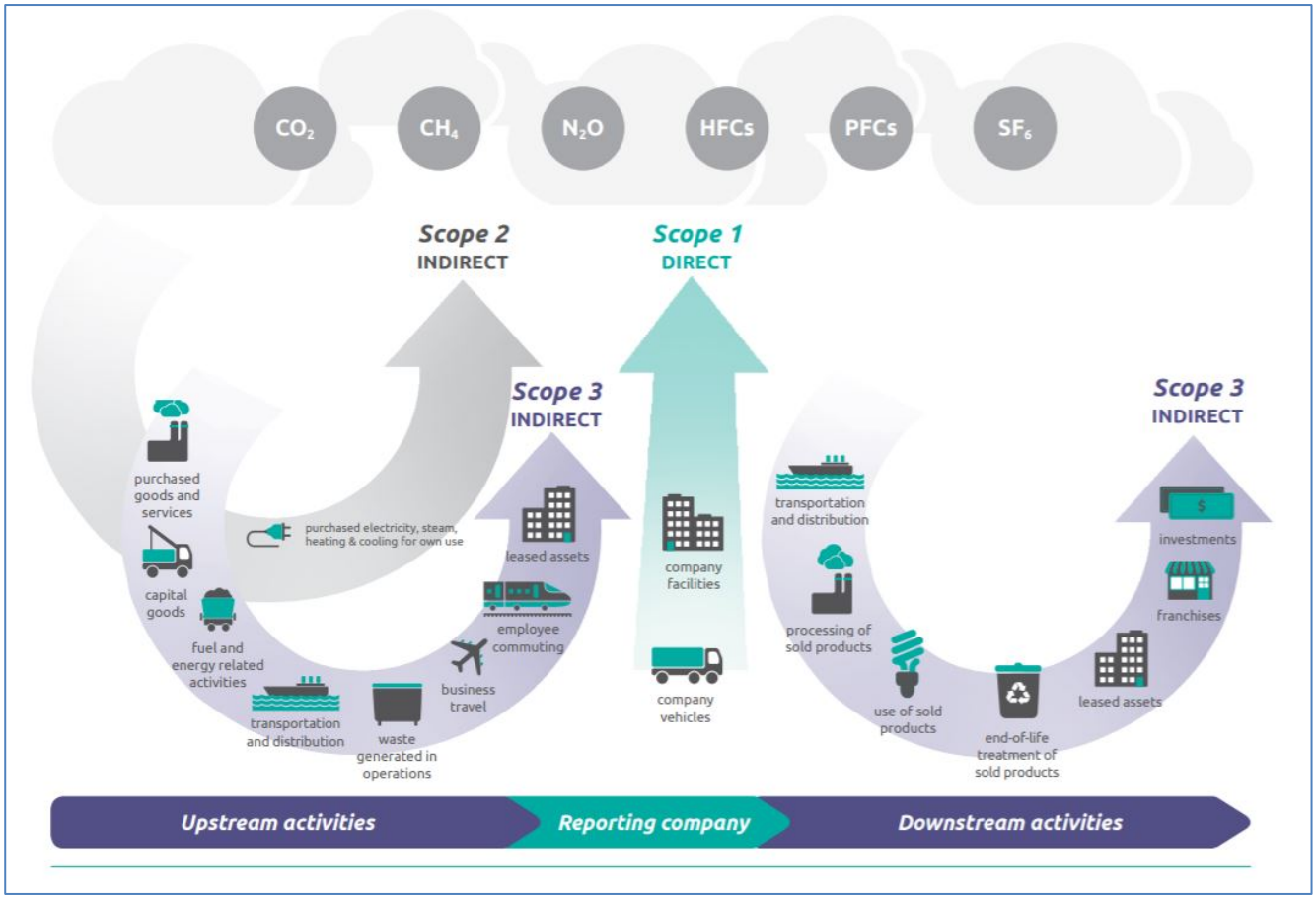
Overview of relative contribution of elements



Methodology

For our Carbon Footprint Report we use the carbon footprint standards of the GHG Protocol Corporate Standard. This means that we try to scope the direct and indirect emissions of one year of operation of the company.

We use the below graph to determine the scope of this report:



Two companies one report

Kingdom of Wow as a brand runs two companies.

- KOW Lifestyle Europe – established in the Netherlands. Scope of activity: procure and sell our own branded footwear through retail and web shops fulfilled from third party stock locations, marketing, and sales activities

- KOW Lifestyle Manufacturing – established in Cambodia. Scope of activity: procurement of raw materials, production of branded footwear, local sales, some fulfilment direct from factory, but most product is sold to KOW Lifestyle Europe.

In this report we try to capture the full supply chain from the procurement of raw material by KOW Lifestyle Manufacturing to the parcel delivery to the end customer by KOW Lifestyle Europe

KLE = KOW Lifestyle Europe
KLC = KOW Lifestyle Manufacturing

Scope

Kingdom of Wow applies the operational control approach in accordance with the GHG Protocol Corporate Accounting and Reporting Standard. This means we include emissions from operations over which we have full authority to implement operational and environmental policies. This covers our own manufacturing facility in Cambodia and our commercial operations in Europe.

In addition, we apply a materiality filter to determine which indirect (Scope 3) emissions to include. This ensures our reporting remains relevant and actionable given the size and nature of our business. Emission categories that are expected to have negligible impact, or that lie beyond our current capacity to quantify reliably, are excluded and listed with justification.

For example, emissions from wool and leather — our primary materials — are included under Scope 3 because they represent a significant portion of our total footprint. Other categories, such as employee commuting or minor services, are excluded as immaterial. This combination of operational control and material relevance allows us to create a focused, honest, and practical carbon footprint inventory aligned with best practice.

KOW Lifestyle Manufacturing (Cambodia)

Category	Element	KOW description	In/out scope
Scope 1 direct	Company facilities	Small workshop buildings, no carbon emissions	Out
	Company vehicles	No company vehicles	Out
Scope 2 indirect	Purchased electricity, steam, heating, and cooling for own use	Electricity used for aircon, lighting, light equipment	In
Scope 3 indirect upstream	Leased assets	No leased assets	Out
	Employee commuting	Short distances by motorbikes, negligible	Out
	Business travel	No business travel in 2023	Out
	Waste generated in production	Natural materials used, plastic packing materials reduced, negligible	Out
	Transportation and distribution	Incoming raw materials	In
	Fuel and energy related activities	No activities of this kind purchased	Out
	Capital goods	Not considered material. Also, outside our capacity to calculate	Out
	Purchased goods and services	Services: negligible in size and outside our capacity to calculate. Raw materials: we include the materials most used: wool and leather, for accessories we have no capacity yet to calculate	In
Scope 3 indirect downstream	Transportation and distribution	All KOW intercompany transports are covered by KOW Europe Direct wholesales are in scope	In
	Processing of sold products	Consumer product, no more processing	Out
	Use of sold products	At best we can say that warm feet reduce requirement of heating in homes, but other than that, not relevant	Out
	End-of-life treatment of sold products	Products 99% biodegradable and containing short cycle carbon (wool fibres, leather) so neutral at full-life cycle of materials	Out
	Leased assets	None	Out
	Franchises	None	Out
	Investments	None	Out

Adjustments to the scope this year

- **Smaller incoming shipments:** In Scope 3 Upstream – Transportation and distribution we extended our scope to include the footprint of our incoming Material and equipment shipments with a value of $ 200 and up. In previous years we only accounted for large bulk shipments of materials. The extended scope now includes accessory shipments that are often air shipped due to their small size. Taking these shipments together amounts to a footprint that we believe should be included in this report.

KOW Lifestyle Europe (Netherlands)

Category	Element	KOW description	In/out scope
Scope 1 direct	Company facilities	No physical office, any work done and covered by the Cambodia office	Out
	Company vehicles	No company vehicles	Out
Scope 2 indirect	Purchased electricity, steam, heating, and cooling for own use	No physical office	Out
Scope 3 upstream	Transportation and distribution	Incoming finished goods	In
Scope 3 upstream	Leased assets	No leased assets	Out
	Employee commuting	No commute	Out
	Business travel	Two business trips to Europe	In
	Waste generated in production	No activities	Out
	Fuel and Energy related activities	No activities of this kind purchased	Out
	Capital Goods	No capital goods	Out
	Purchased Goods and Services	We purchase accountancy and warehousing services. Outside our capacity to calculate the emissions. We do purchase green webhosting services.	Out
Scope 3 indirect downstream	Transportation and Distribution	Outgoing parcel deliveries to customers	In
	Processing of sold products	Consumer product, no more processing	Out
	Use of sold products	At best we can say that warm feet reduce requirement of heating in homes, but other than that, not relevant	Out
	End-of-life treatment of sold products	Products 99% biodegradable and containing short cycle carbon (wool fibres, leather) so the products can be deposed off as general household waste and are neutral at full-life cycle of materials	Out
	Leased assets	None	Out
	Franchises	None	Out
	Investments	None	Out

Adjustments to the scope this year

- **Fulfilment from Cambodia:** – Scope 3 upstream – Transportation and distribution. We have moved the DHL air bulk and parcel delivery from the Scope 3 downstream of KOW Lifestyle Cambodia to the Scope 3 Upstream of KOW Lifestyle Europe.
- **Business Trips**: In Scope 3 Upstream – Business Travel we include two business trips to the Netherlands.
- **Outgoing Parcel Deliveries**: in Scope 3 indirect downstream – Transportation and Distribution we shifted to minimal outer packaging in 2024, we therefore removed a packaging footprint to avoid overstatement.

Considerations for the future

Intensity vs absolute targets

For the future we are looking to include carbon intensity calculations to be able to benchmark ourselves against other footwear brands.

Materials and scope

Due to our limited capacity being a small company, we had to choose to focus the two main materials of the slippers. We have ambitions to include more materials in future reports. We are also contacting our key suppliers for their actions to reduce and/or offset their footprint, allowing us to procure already reduced or neutral materials.
We have found a better data source for the carbon footprint per kg of wool.

Sources of emission numbers

We have done research in emissions for the materials and the (main logistic) services that we use. Where there was any doubt, we have chosen the highest emission numbers for our calculations. But it must be acknowledged that many products and services, standards are not yet generally available online.

To be accountable and receive feedback on better sources, we have included our source for each emission. Feedback is very welcome.

Data sources and tools

Source	Use Case
CarbonCare Calculator	Shipment emissions
EMBER via OurWorldInData	Cambodia electricity intensity
Wiedemann et al. (2016)	Wool emission factor
Aniline Leather Case Study (2024)	Leather emission factor
SmartWay (EPA)	US parcel delivery footprint
Etsy / Avocadostore / DHL	Offsets and platform-specific data

First Reduce, offset what is left

We completed this calculation and report for the first time over 2020. This gave us great insight as to where our footprint is created, and how this is distributed. 2024 is our fifth report using the same methodology.

You will see in this report that the footprint for wool and leather used far exceeds any of the other impacts. Currently we do not have alternatives to using wool and leather for our products.

For the resulting carbon footprint, we look for certified projects that we can use to offset our carbon emissions.

History

5 years of history

Year	Footprint	Remark
2020	50,474 kg CO_2e	There was a sizeable mistake in the leather footprint calculation of 21,963 kg CO_2e. It is added in this overview we added this to our 2021 offset purchase.
2021	100,110kg CO_2e	We bought 400% more wool in 2021.
2022	118.030kg CO_2e	In 2022 we experienced a low growth curve. Resulting in only a slightly higher carbon footprint
2023	95,137kg CO_2e	The footprint is lower because we had one wool shipment less than the previous year. This is partly countered as we found improved data that suggests a higher wool footprint.
2024	102,735 kg CO_2e	The increase in our 2024 footprint compared to 2023 is primarily due to expanded reporting scope and refined data accuracy. This includes more detailed treatment of wool yarn types, inclusion of small accessory shipments, and accounting for business travel. We also updated our parcel delivery methodology to align with tonne-kilometre based calculations, resulting in more accurate (and often lower) estimates. These changes reflect our commitment to continuous improvement and transparency.

Over the reporting years, we have improved our footprint accuracy by refining emission factors (e.g., wool), updating logistics data, and enhancing data tracking (e.g., packaging weight, parcel destinations). We aim to continue this trend by including more Scope 3 categories and improving supplier engagement.

Offset of 2024

Carbon offset can be arranged across the globe in many ways. We have chosen to look for a project that has a relevant connection for us. We have donated to this project since the completion of our first Footprint Report.

We are aware of discussions on the carbon offsetting claims. For this year we have chosen to remain with the plan. See where things are heading. We may switch in the future.

***Stand For Trees – Southern Cardamom*.**

This project works in one of the most beautiful tropical forests in Cambodia. It offers the purchase of carbon offset credits, working in accordance with REDD+, which is a UN approved model specially created to fight climate change by saving forests.

REDD+ also means that in additional to the carbon offset, there is positive impact on biodiversity, livelihoods, wildlife habitat and much more.

Kingdom of Wow likes this comprehensive approach.

Note to the Board

This report will be discussed in the next board meeting to establish a high-level confirmation and support for footprint reducing decisions that we can take during the year.

- Anchor our principle and objective for a carbon neutral operation through initial emission reduction and offsetting the footprint that is left.
- Purchase climate neutral services as much as possible, or include an offset option when available (i.e. flights and transportation services)
- Make energy saving investments in the Kingdom of Wow Cambodia office
- Source more sustainable materials with a smaller footprint where possible

KOW Lifestyle Manufacturing

KLC Scope 3 Indirect Upstream

Material: Wool

What we measure

Carbon footprint per kg of wool / yarn

Sources

Emission Factors for Wool Yarn Used in Our Products

In 2024, we refined our emission factor selection for wool-based materials to improve accuracy and reflect current data. We use three types of yarns in our products:

- 100% sheep wool
- 50% bamboo viscose / 50% sheep wool
- 50% lyocell / 50% sheep wool

Source and Justification

Material	Publication	Conclusion
Sheep Wool	Wiedemann et al. (2016), "Environmental impacts and resource use from Australian wool production using life cycle assessment" Published in: Journal of Cleaner Production (2016) *https://www.sciencedirect.com/science/article/pii/S0959652616001700*	19.5–25.1kg CO_2e greasy wool at farm gate
Sheep Wool	Ozek, "Sustainability, biodegradability and life cycle analysis of wool". Published in: Sustainable Fibres and Textiles (2023) https://www.sciencedirect.com/science/article/pii/B9780323995986000219	7.83–18.70kg CO_2e wool yarn
Bamboo Viscose	Shen, L. et al. (2010). "Life Cycle Assessment of man-made cellulose fibres" (Utrecht University). https://www.researchgate.net/publication/50925966_Life_Cycle_Assessment_of_man-made_cellulose_fibres	5kg CO_2e
Lyocell	Shen, L. et al. (2010). Same source as above. Based on Lenzing technology data.	4.8-5kg CO_2e

Carbon Footprint of Wool Production
The results of the footprint per kg of wool are both high, and quite variable. Below an additional analysis to arrive to our final conclusion.

Wool production has a relatively high carbon footprint compared to other textile fibres. This is primarily due to the greenhouse gas emissions associated with sheep farming.

Key Contributors to Wool's Carbon Footprint:

- **Enteric Methane Emissions (CH_4):** Sheep, as ruminant animals, produce methane during digestion. Methane is a potent greenhouse gas, and enteric fermentation accounts for a significant portion of wool's carbon footprint.
- **Manure Management (N_2O and CH_4):** The decomposition of sheep manure releases nitrous oxide and methane, both contributing to greenhouse gas emissions.
- **Feed Production:** The cultivation of feed crops, such as soybeans, involves the use of fertilizers and machinery, leading to additional emissions.
- **Land Use and Management:** Land use changes, including deforestation and soil degradation for pasture, contribute to carbon emissions.
- **Energy Use in Processing:** Post-shearing processes like scouring, spinning, and dyeing consume energy, adding to the overall carbon footprint.

Emission Factors:
Based on the study by Wiedemann et al. (2016), the carbon footprint for greasy wool at the farm gate is estimated to be approximately 19.5-25.1 kg CO_2e per kg. This figure encompasses emissions from enteric fermentation, manure management, feed production, and other on-farm activities. The majority of emissions (approximately 89%) occur during the sheep farming stage.

Conclusion:
Given the substantial emissions associated with sheep farming, wool inherently has a higher carbon footprint compared to many other textile fibres. Although the Ozek study concludes high end estimate of 18.70 CO_2e per kg, we will use the high end of the Wiedemann estimation to calculate our footprint.

Yarn Type	kg CO_2e per kg	Remark
100% Sheep Wool	25.1	High end of Wiedemann estimate
50% Bamboo Viscose 50% sheep wool	15.05	Average of sheep wool and Viscose

50% Lyocell 50% sheep wool	15.05	Average of sheep wool and Lyocell

Wool purchases

Purchase Orders	100% wool (kg)	Bamboo Wool (kg)	Lyocell Wool (kg)
PO-2024-005	1000	420	0
PO-2024-024	331	1033	314
total	**1331**	**1453**	**314**

Carbon Footprint

kg of wool	Carbon footprint per kg	Total footprint
1331	25.1	33,408.10
1453	15.05	21,867.65
314	15.05	4,725.70
total		60,001.45

Material: Leather

In 2024 we changed from leather sourced in China to a suede leather sourced from a Pakistani tannery that is in the process of obtaining an öko certificate for our slipper production. In 2024, we reviewed and compared available Life Cycle Assessment (LCA) studies to better understand the carbon footprint of cow leather and to select an emission factor that aligns with both our supply chain and the principles of the GHG Protocol.

Sources

Publication	Emission Factor	Unit	Scope Description
UNIDO Leather LCA Report (2012)	110.0	kg CO_2e/m^2	Cradle-to-gate; includes livestock, tanning, finishing
Aniline Leather Case Study (Springer, 2024)	64.8	kg CO_2e/m^2	Cradle-to-gate; includes full processing of thick, finished leather
EU Product Environmental Footprint (PEFCR)	0.82–1.63	kg CO_2e/m^2	Industrial processes only; excludes livestock emissions

The wide variation in emission factors for leather is primarily due to differences in:

- **System boundaries:** PEFCR excludes livestock emissions and covers only industrial processing. In contrast, both the UNIDO and Aniline studies include full upstream emissions, from livestock to finished leather.
- **Allocation methods:** PEFCR uses economic allocation, assigning most livestock emissions to meat rather than leather. Other studies assign a larger share to leather, resulting in higher reported emissions.
- **Leather type and processing:** The Aniline case study reflects high-end finishing and thicker leather, which involves more intensive chemical and energy use — aligning more closely with the type of leather we purchase.

Conclusion and Chosen Emission Factor

- Our leather is sourced from Pakistani tanneries; energy intensity and waste management may differ from EU standards.
- The Aniline case study includes full upstream emissions, including livestock-related impacts, and the type of leather we use (thick suede) resembles the product profile in the Aniline Leather Case Study. This factor likely overstates the footprint slightly but aligns with our conservative approach.

We choose to continue using an emission factor of 64.8 kg CO_2e/m^2 for leather in our Scope 3 calculations. This represents a conservative, but realistic, estimate of the environmental impact of our leather sourcing.

Standard we use

64.8 kg CO_2e

Leather purchases

Leather purchases	F2 of leather	m^2 of leather	
PO2024-011 - Pakistan	3228	290.52	suede cow leather skins
PO2024-012 - China	3000	270	suede cow leather skins
Total	6228	560.52	

Carbon Footprint

F2 of leather	Carbon Footprint per m^2	Total footprint
560.52	64.8	36321.70
Total		36321.70

Material Shipments

We use the multi-modality CO_2 Emissions Calculator from Carbon Care to calculate the emissions of all incoming bulk shipments, including the trucking at the country of origin and the trucking in Cambodia. For 2024 we have increased our scope of reporting and are now including all incoming shipments above US$200 in value. The reason to include them is that they are often express shipments that use air shipment. All the small shipments together have a footprint that we believe we need to include.

Shipment Reference	type of goods	Import/ Export	Origin	Weight of shipment	Freight Modality	Route	Carbon	U/M
PO-2024-012 Suede Leather from China	Leather	Import	Guangzhou	250	Truck	Guangzhou-SR	34.91	CO_2e
PO-2024-011 Suede from Pakistan	Leather	Import	Sialkot	272	Truck-Sea-Truck	SKT-PKKHI PKKHI-KHKOS SHV-SR	43.7	CO_2e
PO-2024-005 Yarn import	Yarns	Import	Shanghai	1761	Sea-Truck	CNSHG-KHKOS - SHV-SR	120.46	CO_2e
PO2024-024 Yarn import	Yarns	Import	Shanghai	1600	Sea-Truck	CNSHG - KHKOS - SR	109.46	CO_2e
PO-2024-033 Espadrille soles from China	Espa Soles	Import	Foshan City	927	Truck-Sea-Truck	FSC-CNGZG CNGZG-SHV KHKOS-SR	57.49	CO_2e
PO-2024-003 Dyneema	Thread	Import	Shandong	25	Air-Truck	WEF-PNH PP-SR	64.8	CO_2e
PO-2024-006 Dyneema	Thread	Import	Jinhu	6.5	Air-Truck	YTY-PNH PP-SR	14.76	CO_2e
PO-2024-029-Dyneema	Thread	Import	Shandong	27	Air-Truck	WEF-PNH PP-SR	69.98	CO_2e
PO-2024-047 Espadrille Laces	Accessories	Import	Xiamen	25	Air-Truck	MN-PNH PP-SR	38.33	CO_2e
PO2024-066 Buttons	Accessories	Import	Hangzhou	50.2	Air-Truck	HGH-PNH PP-SR	105.57	CO_2e
P2024-035 Biodegradable shipping sleeves	Packaging	Import	Shenzhen	22.5	Truck	SHZ-SR	3.23	CO_2e
PO2024-019 Biodegradable shipping sleeves	Packaging	Import	Shenzhen	22.5	Truck	SHZ-SR	3.23	CO_2e
PO-2024-052 Espadrille thread from China	Thread	Import	Houjie Town	140	Truck	HOJ-SR	20	CO_2e
PO2024-062 Drinking Bottles	Office	Import	FuZhou	83	Truck	FZH0SR	16.42	CO_2e
PO2024-065 Micropak anti-mold	Packaging	Import	Ho Chi Minh	60	Truck	HCM-SR	1.98	CO_2e

Source: https://www.carboncare.org/en/co2-emissions-calculator.html
Date: 2025-06-12
Data standard: ISO 14083

Total Emission from incoming material shipments

704 kg CO_2e WTW

KLC Scope 1 Direct

Negligible emission

The production process in our workshop itself has no greenhouse gas emission.

KLC Scope 2 Indirect Energy

Purchased electricity

Total energy bill for 2024

Date	Amount Energy	unit	Memo/Description	Amount
2024 full year	5,140	kWh	Electricity in Jan - Dec 2024	$1,280

Carbon emission per kWh

To determine the carbon emission per kWh in Cambodia, we use the data from the EMBER research institute which is made available through the data platform 'Our World in Data'. link: https://ourworldindata.org/grapher/carbon-intensity-electricity

Year	(kg-CO_2 / kWh)
2024	0.497

Carbon Emission Calculation

kWh used	Emission per kWh	Electricity Carbon Footprint	U/M
5,140	0.497	2,554	kg CO_2

KOW Lifestyle Europe

KLE Scope 3 Indirect Upstream

Bulk Finished Good Import Shipments

KOW Lifestyle purchases products (slippers and shoes) from KOW Lifestyle Manufacturing in Cambodia. They buy EXW, so the full shipment footprint is allocated to KOW Lifestyle Europe.

We use the multi-modality CO_2 Emissions Calculator from Carbon Care to calculate the emissions of all outgoing bulk shipments, including the trucking in Cambodia and the trucking at Destination.

Shipment Reference	unit	Import / Export	Destination	Weight of shipment	Freight Modality	Route	Carbon	U/M	remark
2024-04 US Spring Ocean	KLE	Import	Los Angeles	462	Truck-Sea	SR-PP KHPNH-USLAX	53.56	KG CO_2e	ISO 14083
2024-06 Shipment NL Winter Ocean I	KLE	Import	Alphen aan de Rijn	1739	Truck-Sea-Truck	SR-SHV KHKOS-NLRTM RTD-Alphen	191.97	KG CO_2e	ISO 14083
2024-08 Shipment NL Winter Ocean II	KLE	Import	Alphen aan de Rijn	630	Truck-Sea-Truck	SR-SHV KHKOS-NLRTM RTD-Alphen	69.55	KG CO_2e	ISO 14083

Total Emission Bulk Imports

315 kg CO_2e WTW

Webhosting

Our web builder and digital marketing agency Olive & Lake provides us with 100% green hosting services.

Business Trips

In 2024 two business trips were taken. We include the carbon footprint of the flights in this report

Date	# people	Destination	Description	Footprint	UM	Offset Purchased
Feb-24	1 pax	Netherlands	Roundtrip by airplane	1400	KG CO_2e	yes
Oct-24	1 pax	Netherlands	Roundtrip by airplane	1400	KG CO_2e	no

For one of the tickets, we purchased the additional carbon offset option.

KLE Scope 1 Direct

Negligible emission

We run sales and marketing activities from Cambodia. They would not have process emissions anyways, apart from a little bit of steam coming from ears when Amazon changed their product listing requirements again.

KLE Scope 2 Indirect Energy

Negligible emission

We do not run any physical office in the Netherlands or the US.

Platform Offset Programs

Below is an overview of the Carbon Offset Programmes of the platforms we sell on.
Two of the platforms offer 100% offset of shipping. We still include the footprint of these deliveries in our footprint report but will deduct these offsets from the footprint that we compensate for.

Platform	Offset	Description
Avocadostore	Yes	• Offsets all shipping emissions via DHL GoGreen & ClimatePartner; • 720g CO_2 per parcel estimated. • Supports REDD+ in Brazil & reforestation in Germany. • 1.8+ million kg CO_2 offset since 2019 • https://www.avocadostore.de/wissenswert/umwelt-und-klimaschutz/klimaneutraler-versand
Etsy	Yes	• 100% of global shipping emissions offset since 2019. • Partners with 3Degrees. • Supports forest conservation, clean energy projects. • Free for buyers and sellers • https://www.etsy.com/seller-handbook/article/etsy-is-powering-positive-impact-by/1000592010194
Bol.com	no	• No carbon offsetting programme. • Focus on emission reduction. • Uses renewable energy and electric delivery. • Climate neutrality goal by 2025 • https://over.bol.com/en/sustainability/
Amazon	no	• No shipping emission offsetting. • Emission reduction via EVs and renewables. • Carbon credit platform (not tied to FBA). • Net-zero target by 2040. • https://sustainability.aboutamazon.com/environment/carbon-footprint
Wolf and Badger	no	• No platform-wide carbon offsetting for deliveries. • Committed to net-zero by 2030. • Tracks emissions (Scope 1–3) and supports sustainable packaging. • https://wolfandbadger-res.cloudinary.com/image/upload/about/W_B_Annual_Impact_Report_2024.pdf

Individual Parcel Delivery EU

The commitment to sustainability was an important criteria when choosing our Fulfilment partner in the Netherlands. They work with PostNL for parcel deliveries. PostNL has strong carbon reduction commitments. That said, we do not have exact footprint data at the level of our own shipments. Therefore, we use the Carbon Care Calculator also for these shipments.

Average Parcel Delivery Distance

We use the following proxies for the distance of a typical individual delivery.

size of shipment	Dimensions	Country of Delivery	Standard Route	modality	Carbon	U/M
Single Package	0.5kg - 0.05 m^3	Netherlands	Alphen aan den Rijn - Arnhem	Trucking	0.005	KG CO_2e WTW
Single Package	0.5kg - 0.05 m^3	Germany	Alphen aan den Rijn - Frankfurt	Trucking	0.01	KG CO_2e WTW
Single Package	0.5kg - 0.05 m^3	Belgium	Alphen aan den Rijn - Brussels	Trucking	0.01	KG CO_2e WTW
Single Package	0.5kg - 0.05 m^3	Rest of Europe	Alphen aan den Rijn - Vienna	Trucking	0.03	KG CO_2e WTW

Packaging footprint

We have used a packaging footprint in earlier years. Our fulfilment partner tested shipping the original box and only a sleeve, which works. So, we can remove the footprint of the additional outer box that we calculated for previously.

Total Emission from Parcel Delivery EU

Platform	EU Zone	Number of sales and returns	Carbon footprint (kg)	Total footprint	Offset By Etsy	Offset By Avocadostore
Etsy	Netherlands	3	0.005	0.015	0.015	0
Etsy	Belgium	0	0.01	0	0	0
Etsy	Germany	27	0.01	0.27	0.27	0
Etsy	Rest of Europe	8	0.03	0.24	0.24	0
AvocadoStore	Netherlands	1	0.005	0.005	0	0.005
AvocadoStore	Belgium	0	0.01	0	0	0
AvocadoStore	Germany	149	0.01	1.49	0	1.49
AvocadoStore	Rest of Europe	7	0.03	0.21	0	0.21
Other Platform	Netherlands	389	0.005	1.945	0	0
Other Platform	Belgium	78	0.01	0.78	0	0
Other Platform	Germany	72	0.01	0.72	0	0
Other Platform	Rest of Europe	86	0.03	2.58	0	0
		820		**8.255**	**0.525**	**1.705**

Individual Parcel Delivery US

For the US, all our parcels are offered to UPS Ground, so we have no air shipments, except for overseas destinations (delivery zone 9).

For the trucking and air shipment footprint we use the EPA SmartWay numbers:
https://www.carbonkit.net/categories/DEFRA_freight_transport_methodology

We use the following footprint calculation

size of shipment	Dimensions	Route	modality	Carbon	U/M	Carbon per KG	UM
parcel under 1kg	not defined	US delivery zone 1-8 Canada/Mexico	truck	0.1	KG CO_2e per tonne km	0.0001	KG CO_2e per km
parcel under 1kg	not defined	US Delivery zone 9 Rest of the World	air	0.5	KG CO_2e per tonne km	0.0005	KG CO_2e per km

As the footprint of a shipment in the US has a big variability, we have determined the distance for each shipment based on the distance between our fulfilment centre in LA and the destination state capital. This results in the below overview with total kilometres.

Modality	Etsy or Other	Total km	Weight of average Parcel (kg)	Footprint per km	Footprint Total per parcel	Offset By Etsy
Air	Etsy	65,459	0.5	0.0005	33	32.72
Air	Other Platform	575,681	0.5	0.0005	288	0
Truck	Etsy	386,832	0.5	0.0001	39	38.69
Truck	Other Platform	1,450,860	0.5	0.0001	145	0
		2,478,832			**504**	**71.41**