



C-390 Product Carbon Footprint Report According to the GHG Protocol methodology

„Product Life Cycle Accounting and Reporting Standard“

For 2024

Aero

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General information and scope of calculation

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Disclaimer

This Product Carbon Footprint Report has been prepared in accordance with internationally recognized methodological standards, in particular in line with the GHG Protocol, and provides an overview of emissions arising from the production of the product during the relevant reporting period. The report includes emissions under Scope 1, Scope 2, and Scope 3, and has been compiled based on data available as of the date of preparation, as well as on available internal documentation. Emission factors from publicly available databases were used for the calculations.

The calculation was carried out using a combination of primary measured data and calculation- or estimation-based methods in cases where measured data were not available. Due to the nature of Scope 3 emissions, reliance on third-party information, and the use of modelling approaches, the results may contain a certain degree of uncertainty. The report therefore represents the best available estimate of emission activities at the time of preparation.

This Product Carbon Footprint Report was prepared by an external expert entity; however, the data contained herein have not been subject to independent verification or third-party assurance, unless stated otherwise.

The report is intended for informational purposes for all relevant stakeholders and may serve as a basis for the company's future non-financial reporting in accordance with applicable European regulatory requirements.

The company reserves the right to update the inventory in the future in response to improved data accuracy, methodological developments, or changes in regulatory requirements.

Products for which the carbon footprint calculation is processed and their description

AERO Vodochody AEROSPACE, a.s., (hereinafter referred to as the "reporting company") develops, manufactures and also operates military jet aircraft. In the field of civil aviation, the reporting company cooperates with the largest aircraft manufacturers on a wide scope of projects and is a partner in several risk-sharing programs, where the company is responsible not only for the production and assembly of aircraft units, but also for their development. The production of the reporting company takes place at the production plant in Odolena Voda, in the Czech Republic near Prague. Another activity of the reporting company is the operation of the airport on the basis of a lease agreement, which is adjacent to the production area.

This product carbon footprint report has been prepared for the C-390 product, which is defined as a single kit containing the following components:

- 2pcs Fixed Leading Edge (FLE)
- 1pc Rear fuselage II - RF
- 1pc Cargo Ramp (CR)
- 7pcs Door (DOOR)



Figure 1: Components of the C-390 product.

Unit and reference flow

Due to the scope of the calculation, the function and the unit of function are not defined, and the declared unit is used. This is determined based on weight as 1 ton of C-390 product.

Scope of calculation: Gate-to-gate

The calculation is prepared for the company AERO VODOCHODY AEROSPACE, a.s. and their product C-390. The calculation of the carbon footprint is processed in the Gate-to-Gate scope, i.e. the calculation of the carbon footprint of a product in the part of the product life cycle includes only the processes taking place between the entry of raw materials into the reporting company ("gate") and the output of the finished product from the reporting company ("gate").

In addition to Gate-to-Gate, the following selected Scope 3 categories were processed:

- Category 1: Purchased goods
- Category 3: Energy and fuel consumption (not included in Scope 1 and Scope 2)
- Category 5: Emissions from waste treatment

For the results of the selected Scope 3 categories, see Attachment No. 3.

Use of other GHGs

Calculation of CO₂ eq. works with the scope of greenhouse gases as defined by the GHG Protocol. No significant greenhouse gas has been identified that would require the expansion of the greenhouse gas group beyond that defined by the GHG Protocol.

Sector-specific guidelines used

No.

Version and date of calculation

The carbon footprint of C-390 has been calculated for the calendar year 2024. The calculation was processed as of 31.12.2024. This is the first year that the calculation has been made.

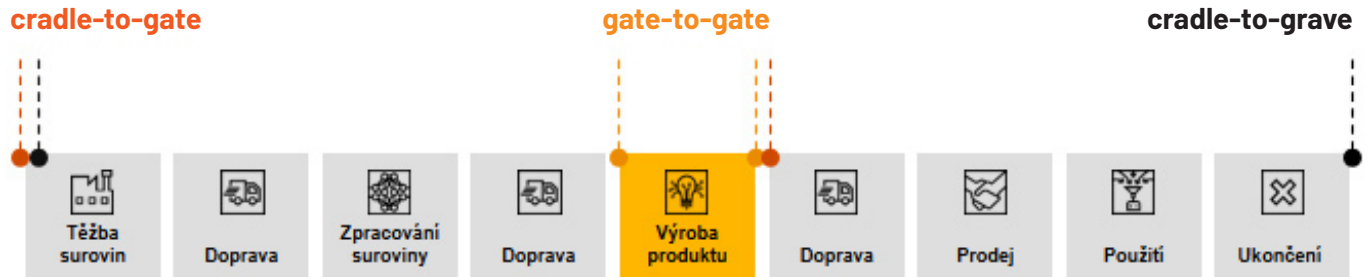
Note on the use of calculation results

The results presented in this report are unique to the characteristics and procedures of the reporting company. The results are not intended for benchmarking/comparison with other companies or products because even for similar products, differences caused by a different unit of analysis or different data quality may yield incomparable results.

Determination of the calculation scope

Definition of individual stages of the product life cycle

The CO₂ emissions associated with the production of the product within the reporting company are included in the calculation.



Production process within AERO Vodochody AEROSPACE, a.s.

To map the production process of the C-390 product, the halls where the product is processed during the production process and the production processes used for its production were first identified.

Hall 1	Subassemblies and final assemblies of the product, packaging and dispatch
Hall 2	Painting/Coating
Hall 4	Production of composite parts (gluing, curing, forming)
Hall 38	Storage and basic cutting of metallurgical material for subsequent production
Hall 59	Stamping and hardening of aluminum alloys Production of parts (aluminum alloys) from metallurgical material (cutting, forming) Machining work on parts (aluminum) such as milling, grinding, turning Realization of small assemblies from parts Production of parts (steel) and their hardening Preparation of samples for painting/coating

Table 1: List of production processes carried out in individual halls.

	Hall 1	Hall 2	Hall 4	Hall 38	Hall 59
FLE	✓	✗	✓	✓	✓
RF	✓	✗	✓	✓	✓
CR	✓	✗	✗	✓	✓
DOOR	✓	✓	✓	✓	✓

Table 2: Overview of the movement of individual components in the halls.

Comments on production-related and non-production-related processes

Processes that are not directly related to the production of the products studied, the so-called "non-attributable" processes (e.g. emissions of an administrative building or emissions arising from employee commuting), are not included in the calculation.

None of the processes directly related to the products (so-called "attributable processes") were omitted.

Method of allocating emissions to products

Consumption of electricity, natural gas for heat and steam and liquefied nitrogen

The input data were measured data on the consumption of electricity, natural gas and liquefied nitrogen for the entire year 2024 for the hall. These values were further allocated by an appropriate method (see Table 3) to the consumption for the entire Embraer project. In the next step, the value was allocated to one product according to the volume of production.

Hall	Allocation method for conversion to Embraer project	Allocation method for conversion per product
Hall 1	Area (m ²) - according to exact dimensions	Production volume (pcs) - by share/coefficient
Hall 2	Standard hours (h) - according to the exact time of work/machines	Production volume (pcs) - by share/coefficient
Hall 4	Standard hours (h) - according to the exact time of work/machines	Production volume (pcs) - by share/coefficient
Hall 38	Production volume (pcs) - by share/coefficient	Production volume (pcs) - by share/coefficient
Hall 59	Standard hours (h) - according to the exact time of work/machines	Production volume (pcs) - by share/coefficient

Table 3: Allocation methods used.

In-house transport

The reporting company uses electric forklifts and platform trucks that are charged on the premises of the reporting company. Exact data are not measured within the reporting company, so a qualified estimate of employees working in the in-house transport sector was used. The estimated operating hours for the Embraer project were multiplied by the average power consumption of the vehicles, thus obtaining electricity consumption. This was then allocated to one product according to the volume of production.

Data collection and quality

The data required for the calculation were obtained from:

- Consumption of electricity, natural gas and liquefied nitrogen – measured data by the reporting company
- In-house transport – qualified estimate
- Waste production – measured data
- Product weight and production volume – internal documentation
- Standard hours – internal documentation
- Area of Hall 1 – internal documentation

The emission factors used to calculate the carbon footprint of a product are listed in Attachment 1 – Environmental Dataset.

The calculation includes all impacts in Scope 1 and 2 levels directly related to production in accordance with the GHG Protocol. Only electricity is included in the purchased energy, because other energies are not purchased as part of the production.

Uncertainty

Sources of uncertainty

As part of the calculation of the carbon footprint of C-390, the following sources of uncertainty have been identified:

- **Energy consumption** – electricity, natural gas for heat and steam production, liquefied nitrogen. The uncertainty comes from the meters (natural gas, heat, nitrogen) available in the technical documentation of the equipment. Further uncertainty arises from the estimated operating hours of electric vehicles, and the accuracy of the allocation keys used.
- **Emission factors** – Uncertainty about emission factors for energy and utilities can result from differences between regional electricity mixes, seasonal changes and database updates, which affect the accuracy of the assigned values.

Chosen approach

Uncertainties were assessed **qualitatively**, not quantitatively. This approach was chosen for the following reasons:

- **Unavailability of detailed data** – the company does not have historical or project data to accurately monitor energy consumption and waste production at the level of a specific project.
- **Disproportionate complexity** – quantifying uncertainties would require statistical analysis, accurate measurement systems, and extensive monitoring, which is beyond the scope of normal corporate inventory.
- **Normative acceptance** – The GHG Protocol allows for a qualitative assessment of uncertainties when a quantitative estimate is not feasible.

Calculation results

A detailed calculation is in Attachment No. 2 - Calculation.

Emissions associated with energy consumption are divided into two groups: location-based and market-based, according to GHG Protocol methodologies. This dual reporting helps stakeholders understand the regional impacts of electricity consumption and the effectiveness of an organization's purchasing strategies in reducing greenhouse gas emissions.

- **Location-based:** Useful for understanding the regional impact of electricity consumption and for organizations that do not have specific strategies for purchasing electricity with lower emissions.
- **Market-based:** Important for organizations that actively manage their electricity purchases to reduce their carbon footprint and for those participating in renewable energy programs.

Table 4 shows the carbon footprint for 1 kit of C-390 product in tCO₂e in the gate-to-gate scope and the emission intensity in tCO₂e/tonnes.

Scope	Category	Type of data	Unit	2024 Location based	2024 Market based
Scope 1	Fugitive emissions	Emissions	tCO ₂ e	0,8063	0,8063
		Production	tonnes	4,047	4,047
		Emission intensity	tCO ₂ e/tonnes	0,1992	0,1992
	Stationary combustion	Emissions	tCO ₂ e	106,3986	106,3986
		Production	tonnes	4,047	4,047
		Emission intensity	tCO ₂ e/tonnes	26,2907	26,2907
	Total	Emissions	tCO₂e	107,2049	107,2049
		Production	tonnes	4,047	4,047
		Emission intensity	tCO₂e/tonnes	26,49	26,49
Scope 2	Electric vehicles	Emissions	tCO ₂ e	1,302	1,4373
		Production	tonnes	4,047	4,047
		Emission intensity	tCO ₂ e/tonnes	0,3217	0,3552
	Purchased electricity	Emissions	tCO ₂ e	316,5173	349,4005
		Production	tonnes	4,047	4,047
		Emission intensity	tCO ₂ e/tonnes	78,2104	86,3357
	Total	Emissions	tCO₂e	317,8193	350,8378
		Production	tonnes	4,047	4,047
		Emission intensity	tCO₂e/tonnes	78,5321	86,6908
Total	Emissions	tCO₂e	425,0242	458,0427	
	Production	tonnes	4,047	4,047	
	Emission intensity	tCO₂e/tonnes	105,0221	113,1808	

Table 4: Calculation results gate to gate for product C-390.

Chart 1 shows the percentage of the carbon footprint source of C-390 gate-to-gate market-based. The largest share of emissions is represented by purchased electricity (76.28%), followed by stationary combustion (23.23%).

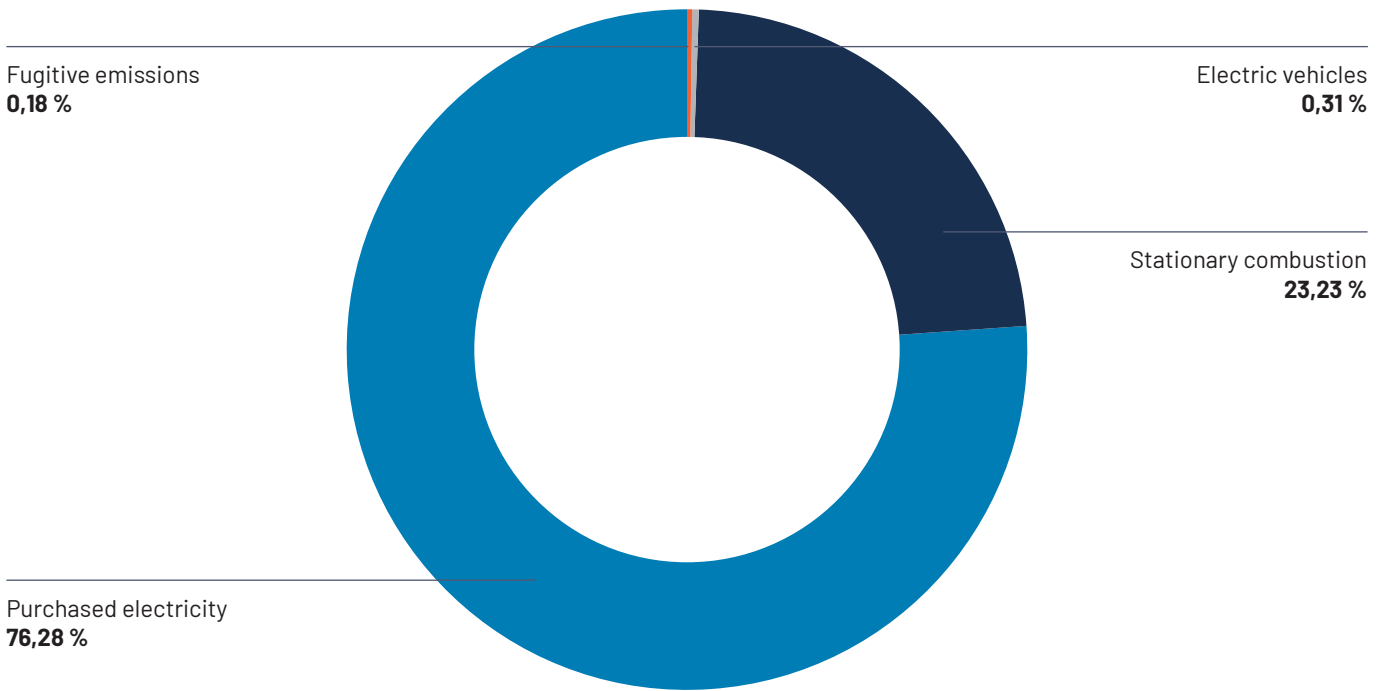


Chart 1: C-390 gate-to-gate market-based carbon footprint by emission source - percentage..

Table 5 provides information on the weight of the components of the C-390 product.

Component	Weight 1 pc (kg)	Number of pcs in the kit	Gross Weight (kg)
FLE	258	2	516
RF	1295	1	1295
CR	1529	1	1529
THROUGH	101	7	707
Product Weight C-390 (kg)			4 047

Table 5: Weight of C-390 product components.

Table 6 provides information on the quantity of C-390 components produced in calendar year 2024.

Component	Number of pcs in the kit	Number of kits produced	Number of components produced
FLE	2	5	10
RF	1	3	3
CR	1	3	3
THROUGH	7	5	35

Table 6: Quantity of C-390 components produced in 2024.

Table 7 shows the total emissions produced by the reporting company for calendar year 2024 in connection with the production of all C-390 product kits.

Scope	Unit	2024 Emissions Location based	2024 Emissions Market based
Scope 1	tCO2e	395,2	395,2
Scope 2	tCO2e	1 165,5	1 286,6
Total	tCO2e	1 560,7	1 681,8

Table 7: Total emissions produced in 2024 by the reporting company in connection with the production of all C-390 product kits.

Audit

No first- or third-party audit of the results has been performed.

Setting emission reduction targets and how to monitor changes in the calculation

In 2024, the reporting company calculated the carbon footprint of the product (described in this document) for the first time.

The reporting company has set this year as a base year for further analysis and determination of the approach to decarbonization and is only in the initial phase of formulating specific goals.

ATTACHEMENT NO. 3

Method of allocating emissions to products

Waste

The reporting company only monitors the total waste production, so an allocation had to be made. Waste irrelevant to the Embraer project was excluded from the total production. Relevant waste was assigned to objects where it is generated completely or in the vast majority. Subsequently, the % share according to standard hours to the given objects was determined (the ratio of the sum per object / production / company according to the establishment vs. the Embraer project). Subsequently, it was recalculated to the total quantity per Embraer project and further according to the volume of production per product.

Purchased goods

It was not necessary to allocate the purchased goods, as the data concerning the amount of material purchased was obtained from internal documentation at the level of individual components. For goods with a known weight, a mass emission factor was used.

Where instead of the weight of the goods, another unit was available (e.g. pcs, m, l, etc.) and the price per unit in CZK, an expenditure emission factor (the so-called spend-based method) was used.

For the calculation, the price had to be converted to EUR, for which the ČNB exchange rate as of 31.12.2024 (end of the reporting period) was used.

Data collection and quality

The data required for the calculation were obtained from:

- Waste production – measured data
- Product weight and production volume – internal documentation
- Standard hours – internal documentation
- Purchased goods – internal documentation

The emission factors used to calculate the carbon footprint of a product are listed in Attachment 1 – Environmental Dataset.

Uncertainty

Sources of uncertainty

The following sources of uncertainty have been identified in the calculation of the Scope 3 carbon footprint of C-390:

- **Waste production** – AERO does not currently measure or track the amount of waste specifically for the Embraer project. The values are derived from the total amount of waste, which generates uncertainty about reality.
- **Purchased goods** – Uncertainty arises for materials where the weight was not known, but a different unit (e.g. pcs, m, l, etc.), and the method of a spend-based emission factor was chosen. This method is not as accurate because expenditure does not always correlate with emissions.
- **Emission factors** – Uncertainty of emission factors can arise from material mapping (closest possible emission factor), geographical differences and database updates, which affect the accuracy of the assigned values.

Calculation results

A detailed calculation is in Attachment No. 2 - Calculation.

Table 1 shows the carbon footprint for 1 kit of C-390 products in tCO₂e for selected Scope 3 categories and the emission intensity in tCO₂e/tonnes.

Scope	Category	Type of data	Unit	2024 Location based	2024 Market based
Scope 3	Purchased Goods	Emissions	tCO ₂ e	2 074,1341	2 074,1341
		Production	tonnes	4,047	4,047
		Emission intensity	tCO ₂ e/tonnes	512,5115	512,5115
	Transmission & Distribution	Emissions	tCO ₂ e	18,5806	20,1437
		Production	tonnes	4,047	4,047
		Emission intensity	tCO ₂ e/tonnes	4,5912	4,9774
	WTT	Emissions	tCO ₂ e	92,1482	92,1482
		Production	tonnes	4,047	4,047
		Emission intensity	tCO ₂ e/tonnes	22,7695	22,7695
	Waste generated in operations	Emissions	tCO ₂ e	4,0267	4,0267
		Production	tonnes	4,047	4,047
		Emission intensity	tCO ₂ e/tonnes	0,995	0,995
	Total	Emissions	tCO₂e	2 188,8896	2 190,4527
		Production	tonnes	4,047	4,047
		Emission intensity	tCO₂e/tonnes	540,8672	541,2534

Table 1: Calculation results for selected Scope 3 categories for one kit of C-390 products.

Table 2 shows the total emissions produced by the reporting company for the calendar year 2024 within the selected Scope 3 categories in connection with the production of all C-390 product kits.

Scope	Unit	2024 Emissions Location based	2024 Emissions Market based
Scope 3	tCO ₂ e	7 743,2726	7 749,0047

Table 2: Total emissions produced in 2024 by the reporting company within the selected Scope 3 categories in connection with the production of all C-390 product kits.