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ENVIRONMENTAL INFORMATION
CNAS VV009-EI

# Zhongtian Radio Frequency Cable Co., Ltd.

## Organizational GHG Verification Report

Client: Zhongtian Radio Frequency Cable Co., Ltd.

Name of Verification Body: TÜV SÜD Certification and Testing (China) Co., Ltd.

Address of Verification Body: 5F, Communication Building, 163 Pingyun Rd, Huangpu Ave. West, Guangzhou 510656 P.R. China

Report No.: 704102501319 Rev.01

Date of issue: 2025-08-21

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## Verification summary

| | |
|---|---|
| Client ..... : | Zhongtian Radio Frequency Cable Co., Ltd. |
| Responsible Party..... : | Zhongtian Radio Frequency Cable Co., Ltd. |
| Address of responsible party..... : | No 105 Qixin Road, Economic & Technological Development Zone, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA 226010 |
| Reporting period ..... : | 2024-01-01~2024-12-31 |
| Project started date..... : | 2025-02-17 |
| Declaration of Responsible party ..... : | Claim Content: The total GHG emissions of Zhongtian Radio Frequency Cable Co., Ltd. at the organizational level in 2024-01-01~2024-12-31 in organizational boundary and reporting boundary are 499211.0385 $tCO_2e$.<br>Claim Date: 2025-01-14 |
| Verification standard ..... | ☒ ISO 14064-1:2018 *Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*<br>☒ ISO 14064-3:2019 *Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements* |
| Implementation rules ..... | CCB_GHG_GR_002CS V5 |
| Organizational boundaries ..... | Activities and facilities within No 105 Qixin Road, Economic & Technological Development Zone, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA, No 1 Tianchi Road, Hekou Town, Rudong, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA, Second Floor of Office Building 3, Zhongtian Industrial Park, Hekou Town, Rudong, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA |
| Consolidation approach: | ☐ Financial control ☒ Operational control ☐ Equity share |
| Level of assurance..... : | ☒ Reasonable ☐ Limited |
| Material discrepancy..... : | Within 5% of total emissions across organizational boundaries |
| Related Industrial Category ..... : | A02 General Manufacturing (A2.6 Computer, communications and other electronic equipment manufacturing) |
| Reporting boundary ..... : | ☒ Category 1: direct GHG emissions and removals<br>☒ Category 2: indirect GHG emissions from imported energy<br>☒ Category 3: indirect GHG emissions from transportation |

| | |
|---|---|
| | ☒ Category 4: indirect GHG emissions from products used by organization<br>☒ Category 5: indirect GHG emissions associated with the use of products from the organization<br>☒ Category 6: indirect GHG emissions from other sources |
| GHG groups.....: | Including $CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, $SF_6$, $NF_3$ seven types of greenhouse gases |
| GHG sources and sinks.: | The facilities of the organization contributing to GHG emissions within the reporting boundaries |
| Base year.....: | 2024-01-01 至 2024-12-31 |
| Verification conclusion...: | In accordance with ISO 14064-3:2019, the claim submitted by the responsible party was verified. It was verified that the organization's calculations of carbon emissions within the boundaries meet the requirements of ISO14064-1:2018 and that the claimed data and information are based on historical fact and there is no major discrepancy. |
| Verification conclusion types.....: | ☒ Unqualified opinion<br>☐ Qualified opinion<br>☐ Adverse opinion<br>☐ Disclaiming the issuance of an opinion |
| Verification team member.....: | Tony Sun |
| Leader of verification team.....: | Johny Wang |
| Other personnel (observers, interns/trainees, external assessors, etc.).....: | Observers: /<br>Interns / trainees: /<br>External auditors: / |

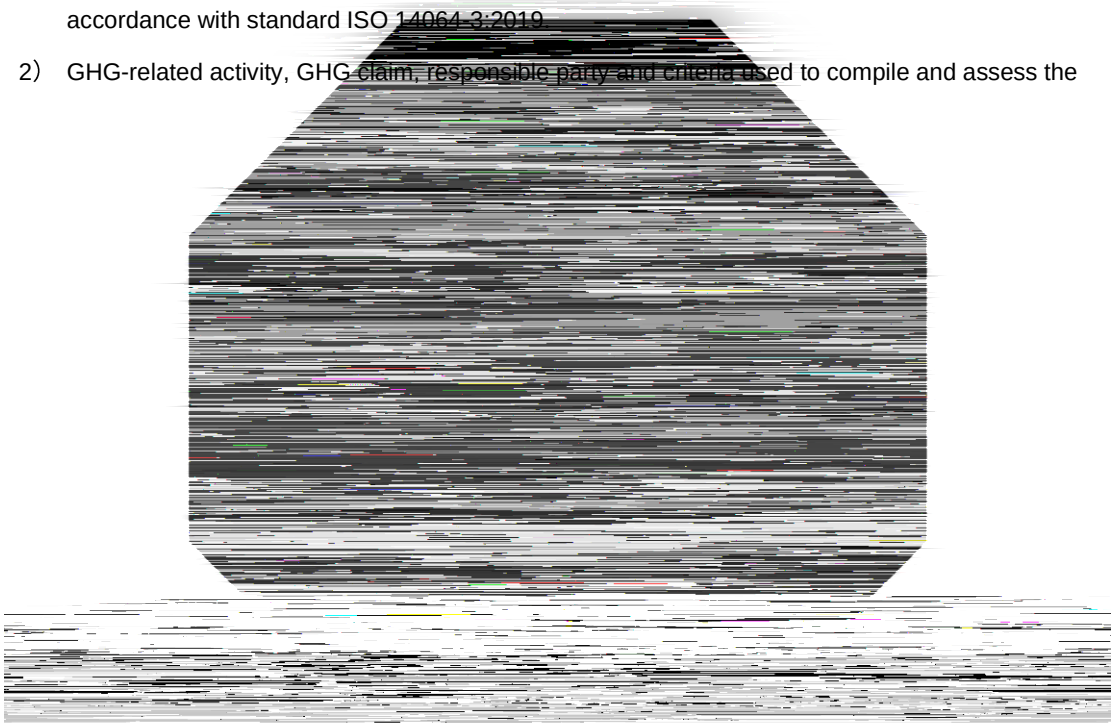
# 1. Summary

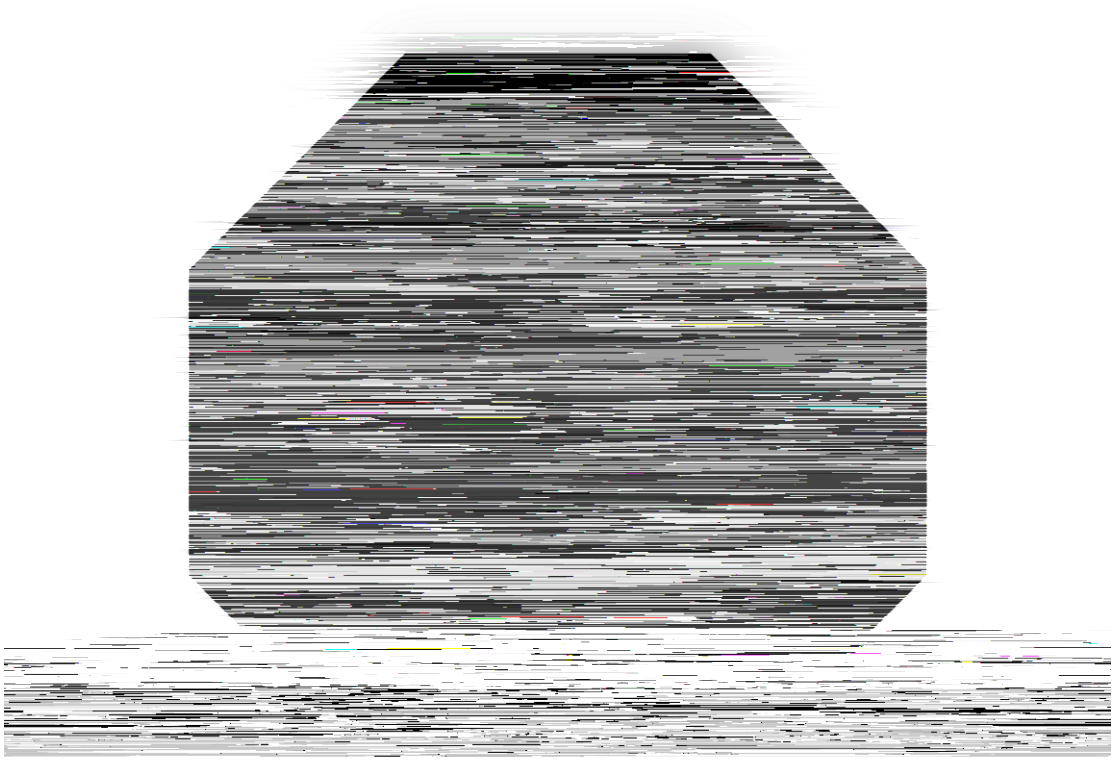
| **Background** |
| --- |
| TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch (hereinafter referred to as TÜV SÜD) was commissioned by Zhongtian Radio Frequency Cable Co., Ltd. to verify GHG emission. Between 2025-02-17~2025-05-12, TÜV SÜD auditor Johny Wang and Tony Sun conducted the carbon verification activities of the responsible party to evaluate the conformity of GHG related verification specification for the organization, including the principles and requirements of the standards or GHG scheme that applied to the verification Category. |
| **Verification conclusion** |

After verification, TÜV SÜD Certification and Testing (China) Co., Ltd. reached conclusions as below:

1） The Organization's GHG emissions verification verifies claims made by responsible party in accordance with standard ISO 14064-3:2019

2） GHG-related activity, GHG claim, responsible party and criteria used to compile and assess the





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| our commitment to the society and employees' health, safety and environment, and adhere to the resource-saving and environment-friendly road. |
| **Responsible Party Greenhouse Gas Claim (Self-declaration)** |
| The total GHG emissions of Zhongtian Radio Frequency Cable Co., Ltd. at the organizational level in 2024-01-01~2024-12-31 in organizational boundary and reporting boundary are 499211.0385 $tCO_2e$. |
| **Level of assurance** |
| ☒ Reasonable assurance ☐ Limited assurance |
| **Verification purpose** |
| ☒ Verify the accuracy and conformity claimed by the responsible party according to the verification criteria.<br>☒ Provide independent evaluation of relevant information through objective evidence, including whether the information in GHG reporting meets the principles of relevance, completeness, consistency, accuracy, and transparency; Whether there are material errors and omissions in the reported data results; Whether the level of assurance provided is met.<br>☐ Others: |
| **Verification Standard** |
| ☒ ISO 14064-1:2018 *Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.*<br>☒ ISO 14064-3:2019 *Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements.* |
| **Verification Category** |

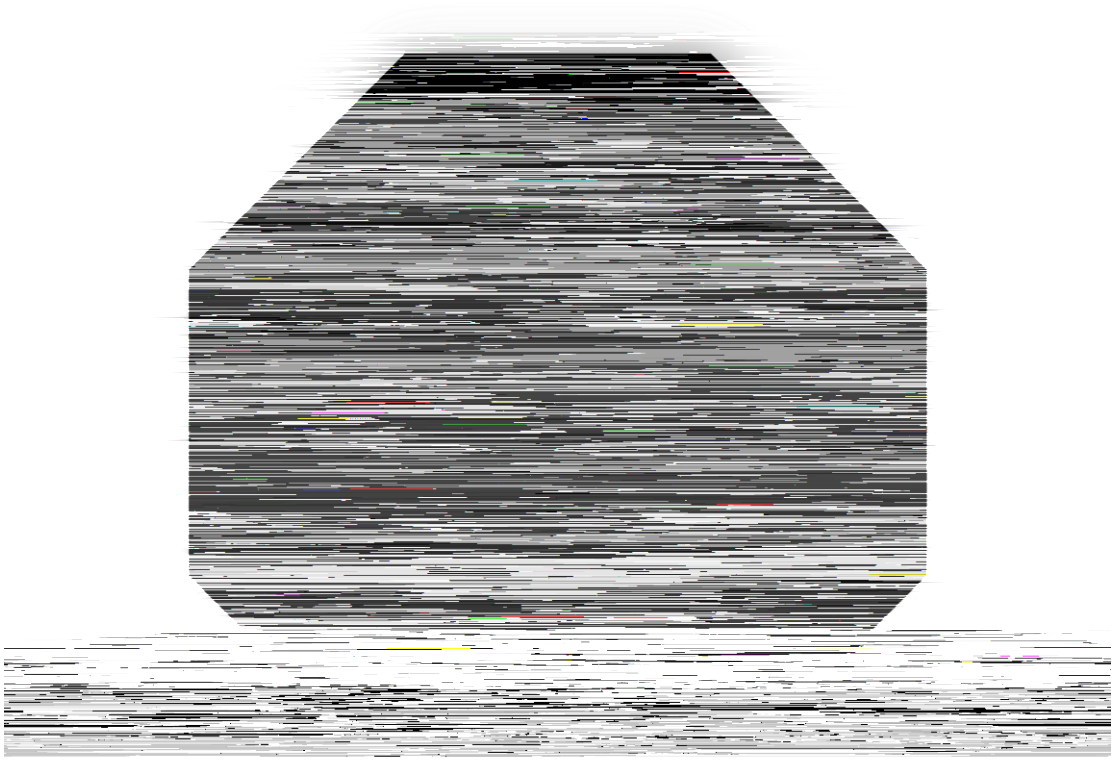
| | |
|---|---|
| Organizational boundary | Under ☐ Financial control / ☒ Operational control/ ☐ Equity share<br>The facilities of the organization contributing to GHG emissions within the reporting boundary:<br>Zhongtian Radio Frequency Cable Co., Ltd.<br>No 105 Qixin Road, Economic & Technological Development Zone, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA |
| Operation Site Covered by Verification activities: | No 1 Tianchi Road, Hekou Town, Rudong, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA<br>Second Floor of Optical Cable Office, Optical Cable Factory, Zhongtian<br>Second Floor of Office Building 3, Zhongtian Industrial Park, Hekou Town, Rudong, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA |
| Reporting Boundary | ☒ Category 1: direct GHG emissions and removals<br>☒ Category 2: indirect GHG emissions from imported energy<br>☒ Category 3: indirect GHG emissions from transportation<br>☒ Category 4: indirect GHG emissions from products used by organization<br>☒ Category 5: indirect GHG emissions associated with the use of products from the organization<br>☒ Category 6: indirect GHG emissions from other sources |

| | |
|---|---|
| Quantified emission source attributes | ☒ Non-biogenic GHG emissions and removals<br>☒ Anthropogenic biogenic $CO_2$ emissions and removals<br>☒ Anthropogenic biogenic emissions and removals of other GHGs<br>☐ Non-anthropogenic biogenic GHG emissions and removals |
| Facilities, physical infrastructure, activities, technologies, and processes | Manufacture and sale of RF coaxial cables, leaky coaxial cables, symmetrical communication cables, signal cables, control cables, high-temperature coaxial cables, high-temperature wires & cables, hybrid fiber-optical cables (composite cables), flexible waveguide feeders (flexible waveguide lines), flexible waveguide leaky cables (flexible waveguide leaky lines), communication network cable, connectors, jumper assemblies, harness assemblies, lightning arresters, feeder clamps and matching accessories. |
| GHG SSRs | All the facilities of the responsible party contributing to GHG emissions within the reporting boundary |
| Types of GHGs | ☒ $CO_2$ ☒ $CH_4$ ☒ $N_2O$ ☒ HFCs ☒ PFCs ☒ $SF_6$ ☒ $NF_3$ |
| Time Boundary | 2024-01-01~2024-12-31 |
| **Materiality thresholds** | |
| The numerical error of the GHG claim is within 5%, and the deviation of the GHG claim does not affect its reliability and the decision of the intended user based on the claim. | |

## 2.2. Verification arrangement

| **Verification team** | |
|---|---|
| **Name** | **Role** |
| Johny Wang | Team leader |
| Tony Sun | Team member |
| Observers: / | Other personnel (observers, interns/trainees, external assessors, etc.) |
| Interns / trainees: / | |
| External auditors: / | |
| **Verification schedule** | |
| **Date** | **Work content** |
| 2025-03-10~2025-03-11 | Documents review |
| 2025-04-07~2025-04-08 | Site visit |
| 2025-08-20 | Verification report writing |
| 2025-08-21 | Issue of verification report |

| |
|---|
| are collected for verification, and 92.86% of cross-check data sources are sampled. In summary, the verification results can meet the requirements of assurance level and materiality threshold. |
| **Evidence-gathering** |



| | |
|---|---|
| 2025-04-07~2025-04-08 | · Inspect whether the main energy consumption equipment and facilities and energy measurement system of the enterprise meet the requirement of GHG quantification |
| 2025-04-07~2025-04-08 | · Collation of data sources, metrological verification, and cross check evidence<br>· Internal evaluation and review of GHG quantification methods<br>· Record and save of GHG documents |
| 2025-04-07~2025-04-08 | · Verification standard<br>· GHG emission boundary<br>· GHG control procedures of the verified party<br>· Contents of GHG inventory report<br>· Determine the conformity of calculation method and emission factor<br>· Material discrepancy of GHG claim of enterprise |

# 3. Verification findings

## 3.1. Assessment of GHG information system and its control

| **Assessment of GHG information system and its control** |
|---|
| The energy consumption data records of the enterprise are complete, and the data statistics and settlement meet the national laws and regulations and industry settlement requirements. The verification team cross checked the corresponding invoice data and found that the energy activity level data provided by the enterprise was accurate and reliable.<br>The responsible party's electricity consumption data is obtained from the electricity invoice provided by the power company, which calibrates the meter. The rest, such as diesel purchase record, refrigerant filling amount, transported materials, etc., comes from the weight provided by the supplier, and the weighing equipment is calibrated by the supplier; The weight data of the waste is derived from the company's weighbridge and is calibrated.<br>Responsible party Greenhouse gas management is the responsibility of the quality department. The responsibilities and terms of reference of the GHG Panel are described below：<br>- Top management: responsible for the establishment of the company's greenhouse gas team, the appointment of greenhouse gas representatives, the provision of resources for greenhouse gas inventory verification, the reporting of greenhouse gas management performance to the Group company, and the person responsible for the greenhouse gas report issued by the company.<br>- Greenhouse Gas Representative: The head of Operations is responsible for organizing the greenhouse gas team to conduct inventory work, responsible for reporting the status and results of |

greenhouse gas inventory and verification to top management and is the designated window for internal and external communication.

- Greenhouse gas authority: responsible for summarizing the level of activity data related to greenhouse gas inventory and verification, and responsible for the establishment of the Company's inventory and the preparation of reports; Responsible for the company's inventory information management, greenhouse gas inventory and verification of documents and records management and archiving.

The responsibilities of the Equipment Department are as follows:

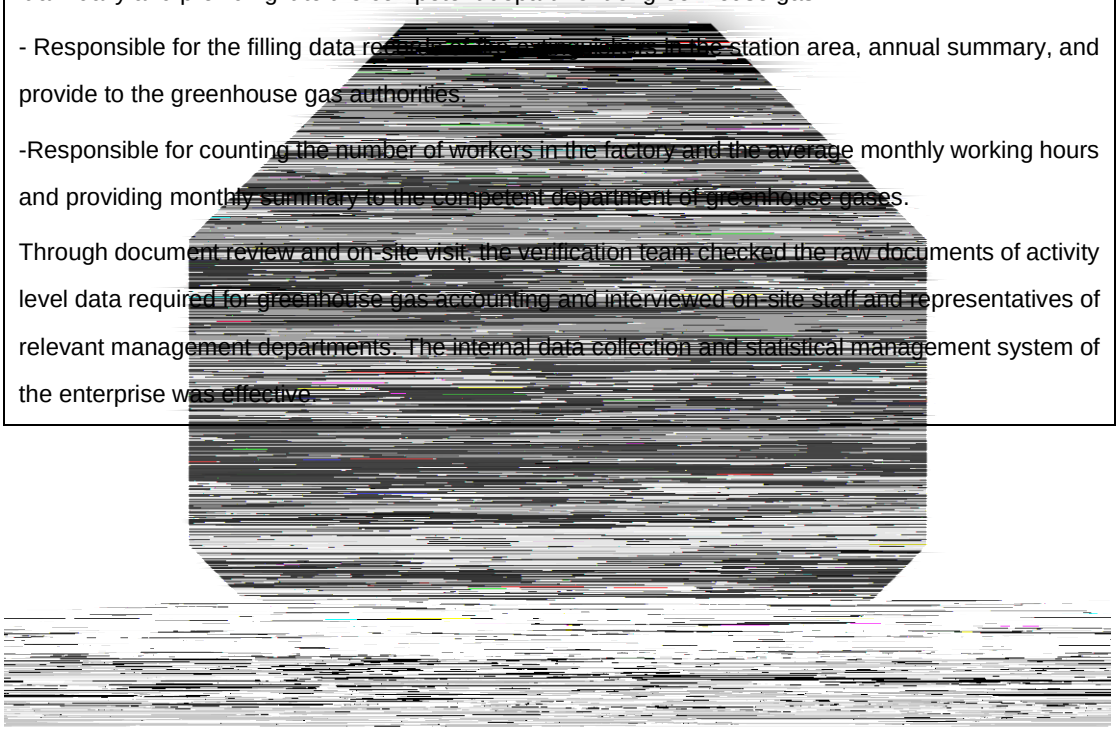
-Responsible for recording power meter reading data of station area, daily meter reading, monthly summary, and providing to the competent department of greenhouse gas.

-Responsible for recording the refrigerant filling data of air conditioning in the station area, summarizing it annually and providing it to the competent department of greenhouse gas.

- Responsible for the filling data record of fire extinguishers in the station area, annual summary, and provide to the greenhouse gas authorities.

-Responsible for counting the number of workers in the factory and the average monthly working hours and providing monthly summary to the competent department of greenhouse gases.

Through document review and on-site visit, the verification team checked the raw documents of activity level data required for greenhouse gas accounting and interviewed on-site staff and representatives of relevant management departments. The internal data collection and statistical management system of the enterprise was effective.



## 3.2. Assessment of GHG data and information

**Activity data and emission factor compliance**

The verification team verified each activity data in the enterprise greenhouse gas emission report submitted by the enterprise. The verification included the values, units and sources of activity data, the values and sources of emission factors, and the GHG calculation process.

The verification information are as follows:

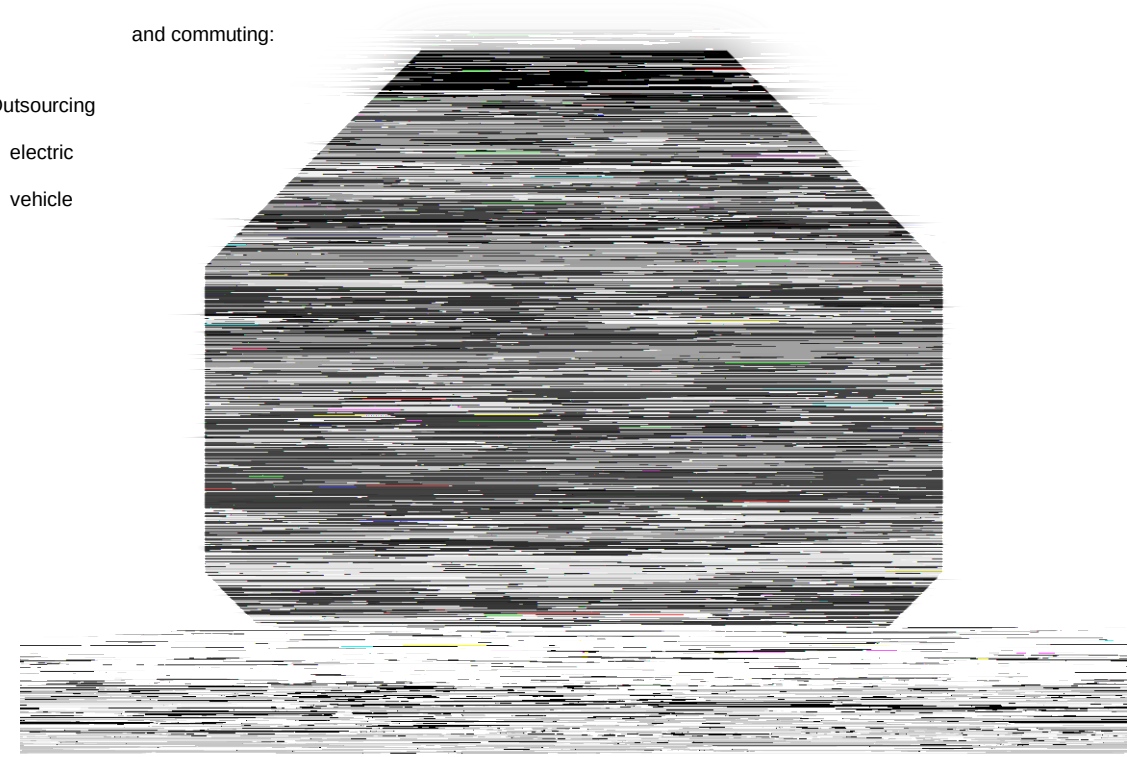
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| **Category 1: direct GHG emissions and removals** | Diesel | Diesel forklift | Direct emission<br>☒ Emission factor method<br>☐ Mass balance method<br>☐ Measurement method | 16091.00 | L | 2024 diesel purchase record | $CO_2$: 74100 $kgCO_2/TJ$<br>$CH_4$: 4.15 $kgCH_4/TJ$<br>$N_2O$: 28.6 $kgN_2O/TJ$<br>Heat value: 42652 TJ/Gg | *2006 IPCC Guidelines for National Greenhouse Gas Inventories* Table 3.3.1, Chapter III, Volume II<br>*China Energy Statistical Yearbook 2022* Appendix IV | |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Propane | Propane combustion | Direct emission<br>☐ Emission factor method<br>☒ Mass balance method<br>☐ Measurement method | 546.00 | kg | Raw material acquisition record | 3.0000 $kgCO_2/kg$ | | 1.6380 |
| | Methane | Methane combustion | Direct emission<br>☐ Emission factor method<br>☒ Mass balance method<br>☐ Measurement method | 3.72 | kg | Raw material acquisition record | 2.7500 $kgCO_2/kg$ | | 0.0102 |
| | R32 | Air conditioning | Direct emission<br>☒ Emission factor method<br>☐ Mass balance method<br>☐ Measurement method | 41.30 | kg | Quantity and the nameplate of air conditioners | Fugitive factor: 5.5% | *2006 IPCC Guidelines for National Greenhouse Gas Inventories*<br>Table 7.9, Chapter VII, volume III | 1.7513 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | R410A | Air conditioning | Direct emission<br>☒ Emission factor method<br>☐ Mass balance method<br>☐ Measurement method | 279.30 | kg | Quantity on the nameplate of air conditioners | Fugitive factor: 5.5% | *2006 IPCC Guidelines for National Greenhouse Gas Inventories*<br>Table 7.9, Chapter VII, volume III | 34.6479 |
| | HFC-227ea | Fire extinguisher | Direct emission<br>☒ Emission factor method<br>☐ Mass balance method<br>☐ Measurement method | 4.00 | kg | Fire extinguisher type, number, and original fill. | Fugitive factor: 2% | *2006 IPCC Guidelines for National Greenhouse Gas Inventories*<br>7.6.2.2, Chapter VII, volume III | 0.2880 |
| | Carbon dioxide | Fire extinguisher | Direct emission<br>☒ Emission factor method<br>☐ Mass balance method<br>☐ Measurement method | 10.00 | kg | Fire extinguisher type, number, and original fill. | Fugitive factor: 5.0% | GB 4351.1-2005 *Portable fire extinguishers- Part 1: Performance and construction* | 0.0005 |

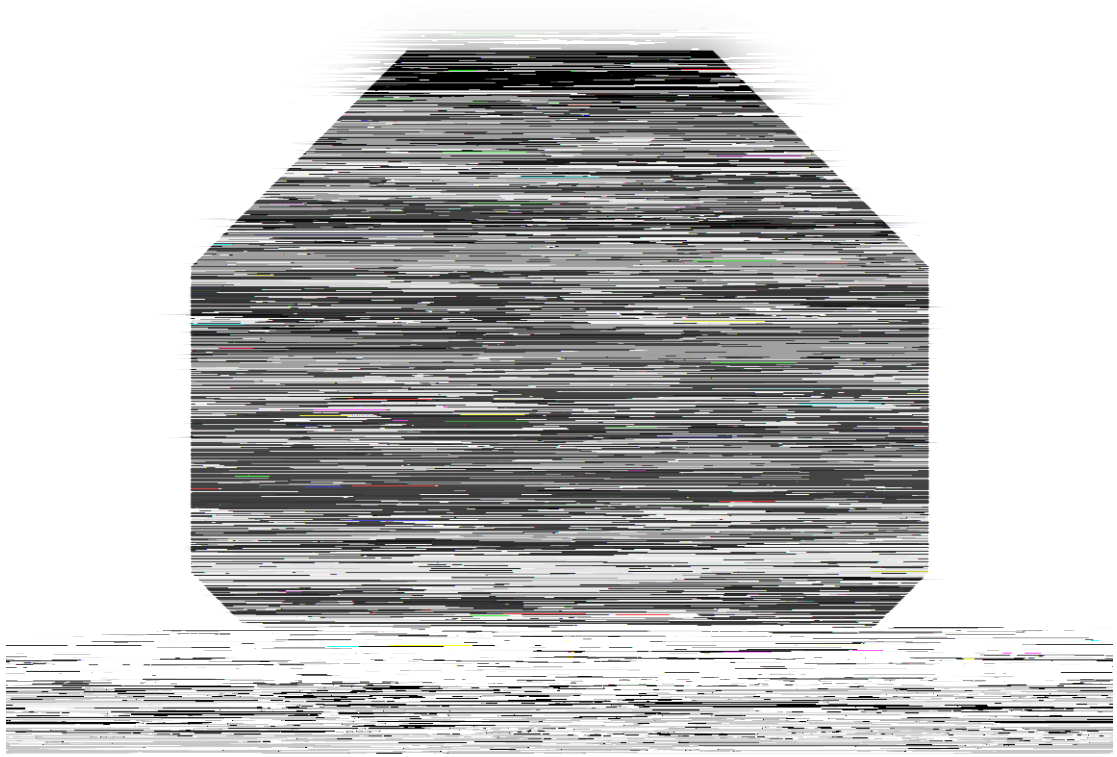
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Carbon dioxide | Gas usage | Direct emission<br>☐ Emission factor method<br>☒ Mass balance method<br>☐ Measurement method | 44462.60 | kg | Raw material acquisition record | 1.0000 $kgCO_2/kg$ | | 44.4626 |
| | Septic-tank | Septic-tank | Direct emission<br>☒ Emission factor method<br>☐ Mass balance method<br>☐ Measurement method | 531 | person | Number of employees in the plant area and enterprise roster | BOD individual production: 40 g/person/day<br>Maximum $CH_4$ production capacity ($B_0$): 0.6 $kgCH_4/kgBOD$<br>$CH_4$ (MCF): 0.5 | *2006 IPCC Guidelines for National Greenhouse Gas Inventories*<br>Table 6.2, Table 6.3 and Table 6.4, Chapter VI, volume V | 64.8893 |
| **Category 2: indirect GHG emissions from imported energy** | Imported electricity | Grid electricity | Electricity and heat:<br>☒ Location-based method<br>☐ Market-based method | 13945364.75 | kWh | Enterprise's power statistics | 0.5366 $kgCO_2/kWh$ | 2022 National Grid Average CO2 Emission Factor | 7483.0827 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Imported electricity | Zhongtian Photovoltaic Technology Co., Ltd. sourced electricity | Electricity and heat:<br>☒ Location-based method<br>☐ Market-based method | 1997920.00 | kWh | Enterprise's power statistics | 0.0000 $kgCO_2/kWh$ | | 0.0000 |
| | Imported electricity | Rooftop photovoltaic electricity | Electricity and heat:<br>☒ Location-based method<br>☐ Market-based method | 579867.00 | kWh | Enterprise's power statistics | 0.0000 $kgCO_2/kWh$ | | 0.0000 |
| **Category 3: indirect GHG emissions from transportation** | Employee commuting vehicle | Outsourcing vehicle | Transportation, travel and commuting:<br>☐ Fuel-based method<br>☒ Distance-based method<br>☐ Spend-based method<br>☐ Not applicable | 446277.60 | km | Employee commuting statistics | 0.3632 $kgCO_2e/km$ | Ecoinvent 3.10 database | 162.0829 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Employee commuting electric vehicle | Outsourcing electric vehicle | Transportation, travel and commuting: |  | | | | | |

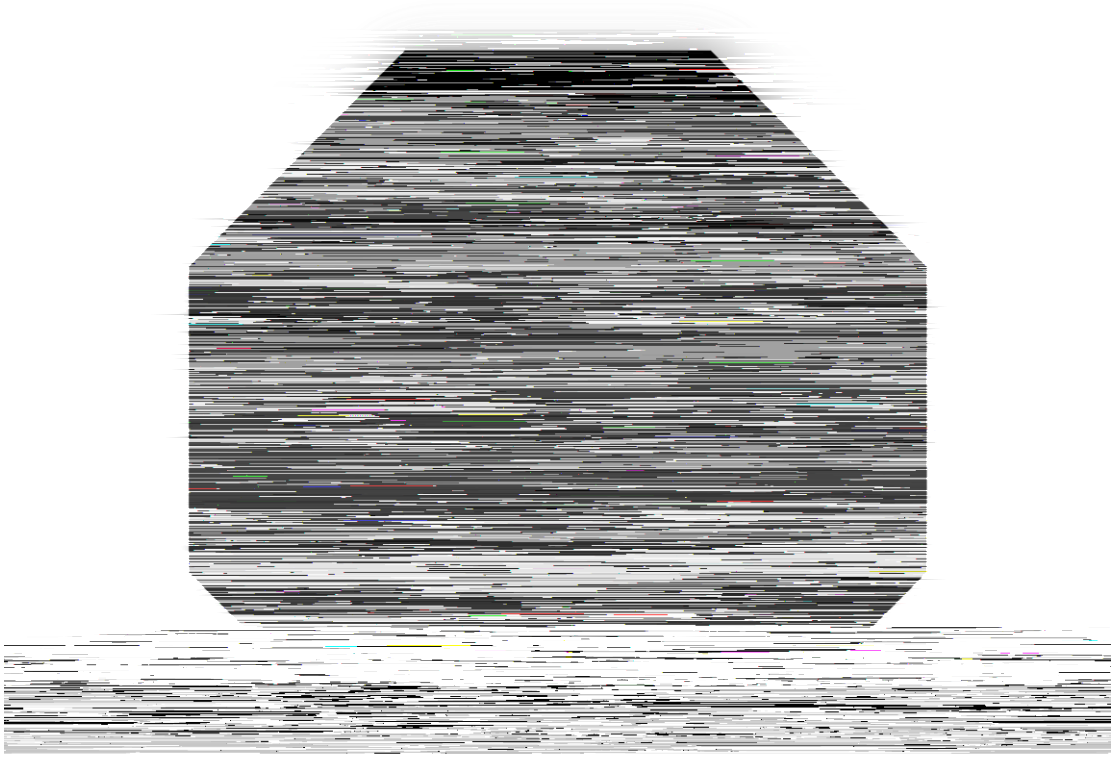
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Employee taxi traveling | Taxi traveling | Transportation, travel and commuting:<br>☐ Fuel-based method<br>☒ Distance-based method<br>☐ Spend-based method<br>☐ Not applicable | 1110.00 | pkm | Employee traveling compensate record | 0.3632 $kgCO_2e$/km | Ecoinvent 3.10 database | 0.4031 |
| | Employee plane traveling | Plane traveling | Transportation, travel and commuting:<br>☐ Fuel-based method<br>☒ Distance-based method<br>☐ Spend-based method<br>☐ Not applicable | 1599335.00 | pkm | Employee traveling compensate record | 0.1099 $kgCO_2e$/pkm | Ecoinvent 3.10 database | 17.5831 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Employee rail traveling | Rail traveling | Transportation, travel and commuting:<br>☐ Fuel-based method<br>☒ Distance-based method<br>☐ Spend-based method<br>☐ Not applicable | 130565.00 | pkm | Employee traveling compensate record | 0.0749 $kgCO_2e$/pkm | Ecoinvent 3.10 database | 9.7753 |
| | Employee subway traveling | Subway traveling | Transportation, travel and commuting:<br>☐ Fuel-based method<br>☒ Distance-based method<br>☐ Spend-based method<br>☐ Not applicable | 360.00 | pkm | Employee traveling compensate record | 0.000032 $kgCO_2e$/pkm | Notice of the Beijing Municipal Ecology and Environment Bureau on Effectively Managing Carbon Emission Entities and Piloting Carbon Emission Trading in the Municipality for 2024 | 0.000012 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Em й ж |  | | | | | | | |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Upstream material transportation | Upstream material road transportation 3.5t-16t | Transportation, travel and commuting: ☐ Fuel-based method ☒ Distance-based method ☐ Spend-based method ☐ Not applicable | 5317580.13 | tkm | Raw material acquisition record | 0.2451 $kgCO_2e$/tkm | Ecoinvent 3.10 database | 1303.2020 |
| | Upstream material transportation | Upstream material road transportation 16t-32t | Transportation, travel and commuting: ☐ Fuel-based method ☒ Distance-based method ☐ Spend-based method ☐ Not applicable | 11788821.73 | tkm | Raw material acquisition record | 0.1940 $kgCO_2e$/tkm | Ecoinvent 3.10 database | 2287.1907 |

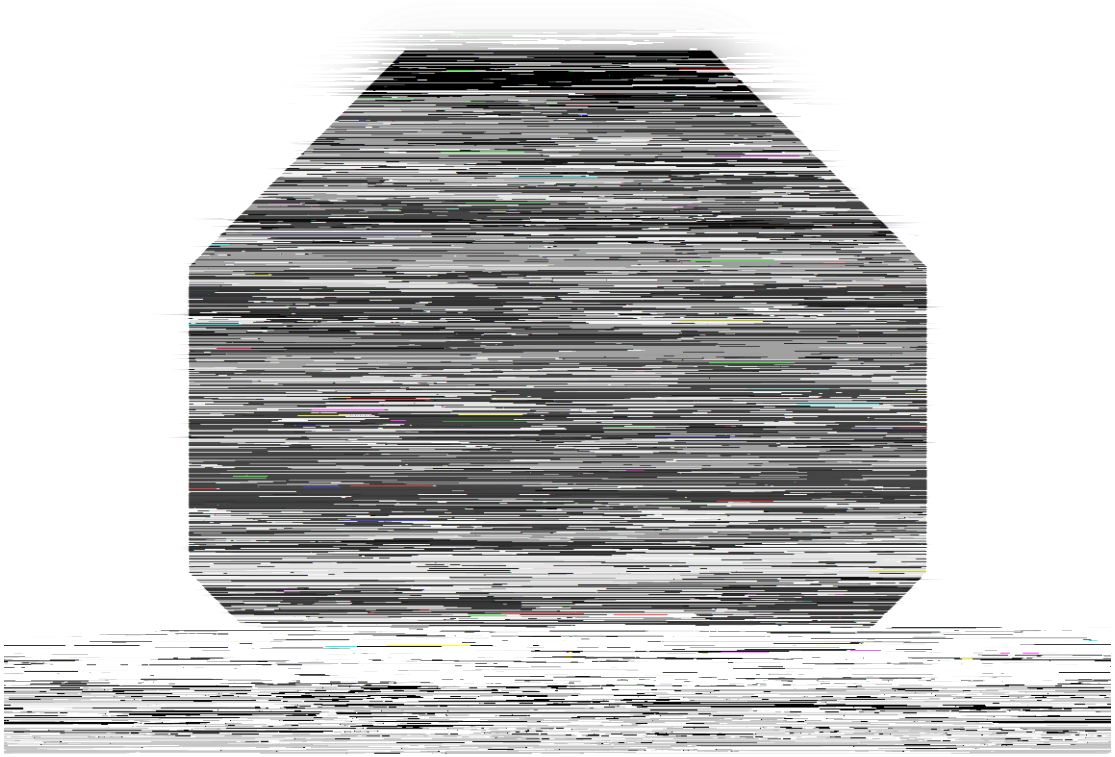
Organizational GHG Verification Report ISO 14064



| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Downstream material transportation | Downstream material road transportation <3.5t | Transportation, travel and commuting: ☐ Fuel-based method ☒ Distance-based method ☐ Spend-based method ☐ Not applicable | 5076269.27 | tkm | 2024 sales record | 2.1172 $kgCO_2e/tkm$ | Ecoinvent 3.10 database | 10747.6085 |
| | Downstream material transportation | Downstream material road transportation 3.5t-16t | Transportation, travel and commuting: ☐ Fuel-based method ☒ Distance-based method ☐ Spend-based method ☐ Not applicable | 12748561.02 | tkm | 2024 sales record | 0.2451 $kgCO_2e/tkm$ | Ecoinvent 3.10 database | 3124.3441 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Downstream material transportation | Downstream material road transportation 16t-32t | Transportation, travel and commuting: ☐ Fuel-based method ☒ Distance-based method ☐ Spend-based method ☐ Not applicable | 14234501.04 | tkm | 2024 sales record | 0.1940 $kgCO_2e/tkm$ | Ecoinvent 3.10 database | 2761.6855 |
| | Downstream material transportation | Downstream material road transportation >32t | Transportation, travel and commuting: ☐ Fuel-based method ☒ Distance-based method ☐ Spend-based method ☐ Not applicable | 14438641.30 | tkm | 2024 sales record | 0.1070 $kgCO_2e/tkm$ | Ecoinvent 3.10 database | 1544.3551 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| **Category 4: indirect GHG emissions from products used by organization** | Production equipment | Production equipment cost | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☐ Average-data method<br>☒ Spend-based method<br>☐ Not applicable | 1275.43 | Ten thousand RMB | Stationary equipment record | 1.9524 $tCO_2e$/ten thousand RMB | *Chinese Environmentally Extended Input-Output database* adjusted by 2024 PPI | 2490.1583 |
| | Office equipment | Computer | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 54.67 | p | 2024 office equipment record | 596.5844 $kgCO_2e$/p | Ecoinvent 3.10 database | 32.6133 |



| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased service | Dining cost | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☐ Average-data method<br>☒ Spend-based method<br>☐ Not applicable | 132.22 | Ten thousand RMB | 2024 dining cost settlement | 0.7397 $tCO_2e$/ten thousand RMB | *Chinese Environmentally Extended Input-Output database* adjusted by 2024 PPI | 97.8039 |
| | Purchased service | Processing service | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☐ Average-data method<br>☒ Spend-based method<br>☐ Not applicable | 193.27 | Ten thousand RMB | Raw material acquisition record | 1.7796 $tCO_2e$/ten thousand RMB | *Chinese Environmentally Extended Input-Output database* adjusted by 2024 PPI | 343.9419 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased living products | Drinking water | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 161.25 | $m^3$ | Drinking water purchase record | 0.3913 $kgCO_2e/kg$ | *China Products Carbon Footprint Factors Database,* Drinking water | 63.0959 |
| | Tap water | Tap water | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 95795.00 | $m^3$ | 2024 tap water invoice | 0.0013 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 122.4535 |

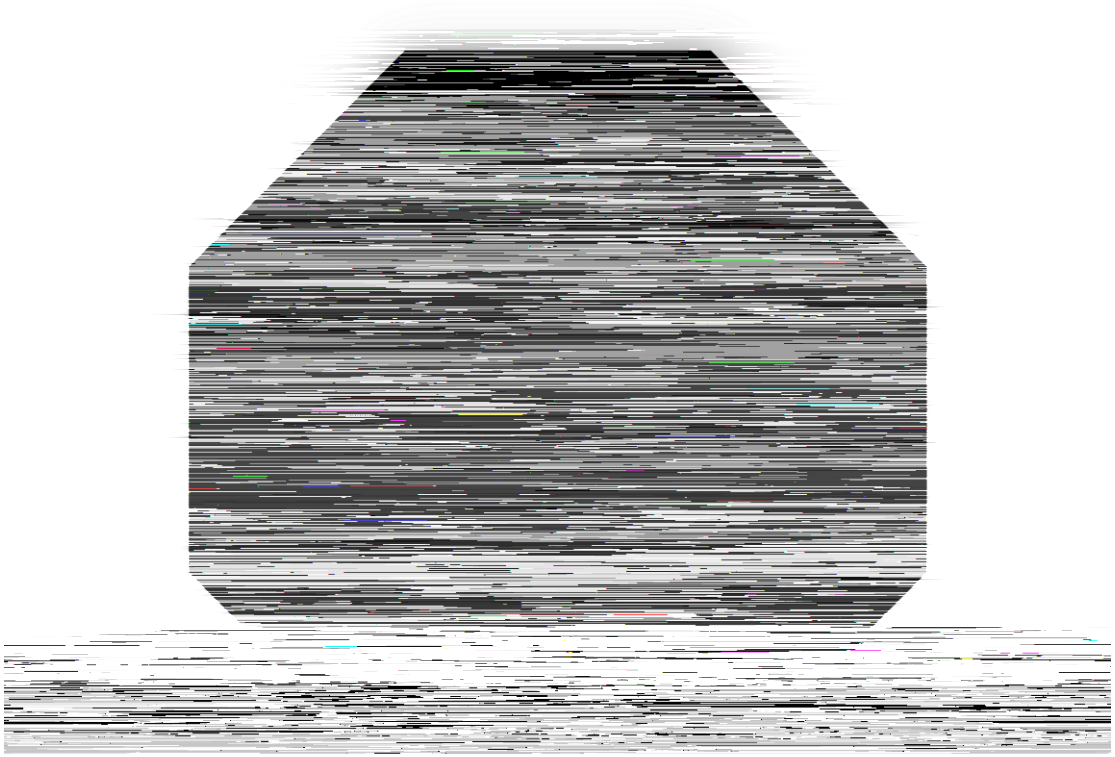
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | ABS product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not [illegible] | | | | | | |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | EAA material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 9650.00 | kg | Raw material acquisition record | 3.7261 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 35.9571 |
| | Purchased raw material | FEP material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 69023.60 | kg | Raw material acquisition record | 2.9196 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 201.5201 |

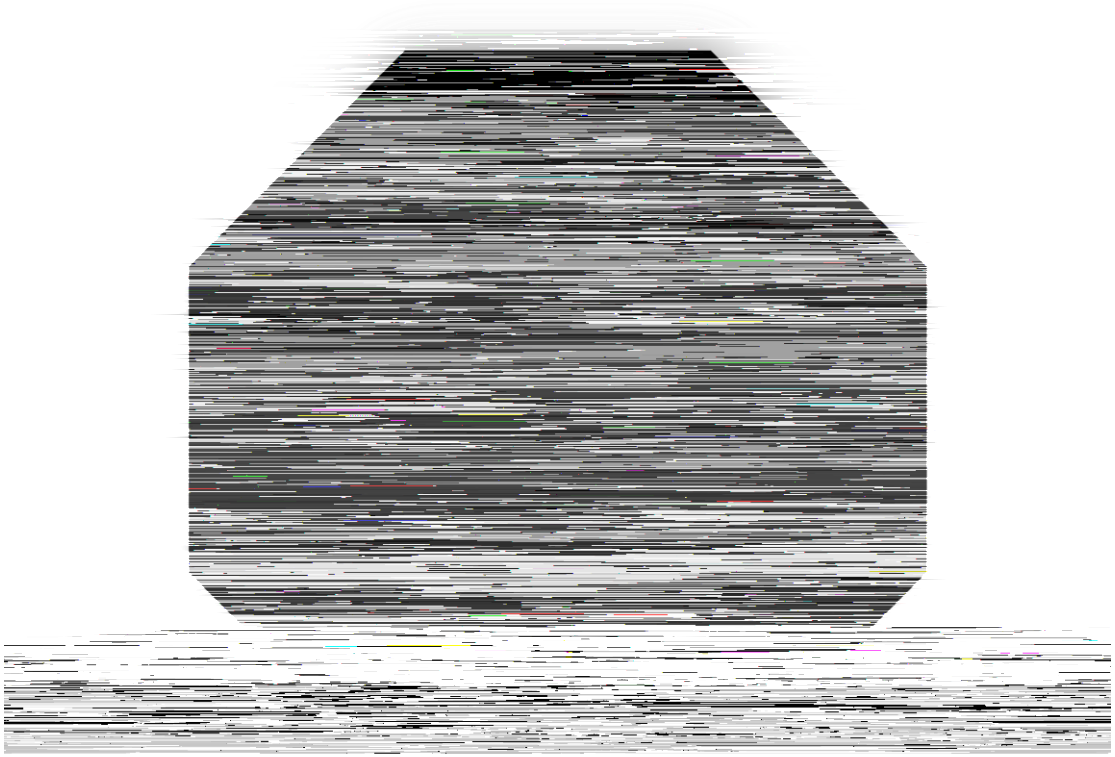
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | HDPE material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 3667814.00 | kg | Raw material acquisition record | 3.1562 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 11576.4465 |
| | Purchased raw material | LDPE material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 889645.00 | kg | Raw material acquisition record | 3.3465 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 2977.1738 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | PE tape | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 757.89 | | | | | |

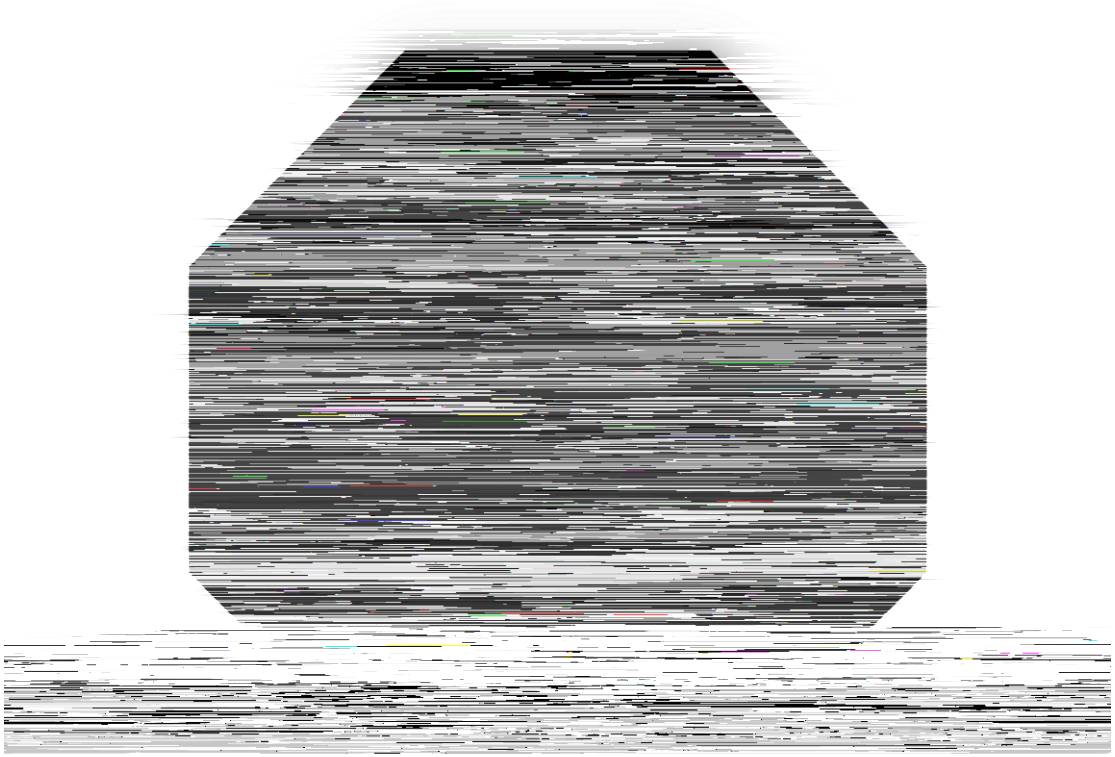
| Emission categories | Emission source | Facilities or process |
|---|---|---|



| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | LSZH material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 9669816.00 | kg | Raw material acquisition record | 2.1529 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 20817.8179 |
| | Purchased raw material | PA6 product | Goods, services and capital goods:<br>☐ Supplier | | | | | | |



| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | PET product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 78992.55 | kg | Raw material acqui'Y | [illegible] | [illegible] | [illegible] |

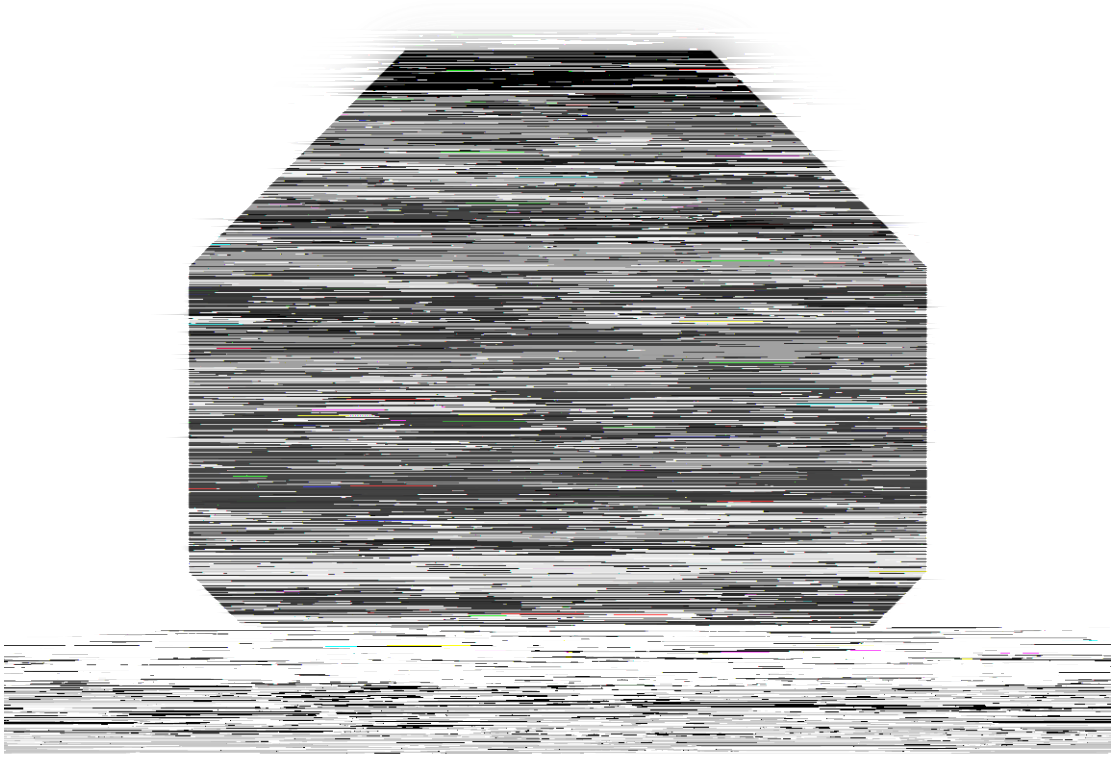


| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | PP material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 96628.5 | kg | Raw material acquisition record | 3.6789 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 355.4863 |
| | Purchased raw material | PP plastic strip | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 656.62 | kg | Raw material acquisition record | 4.3351 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 2.8465 |

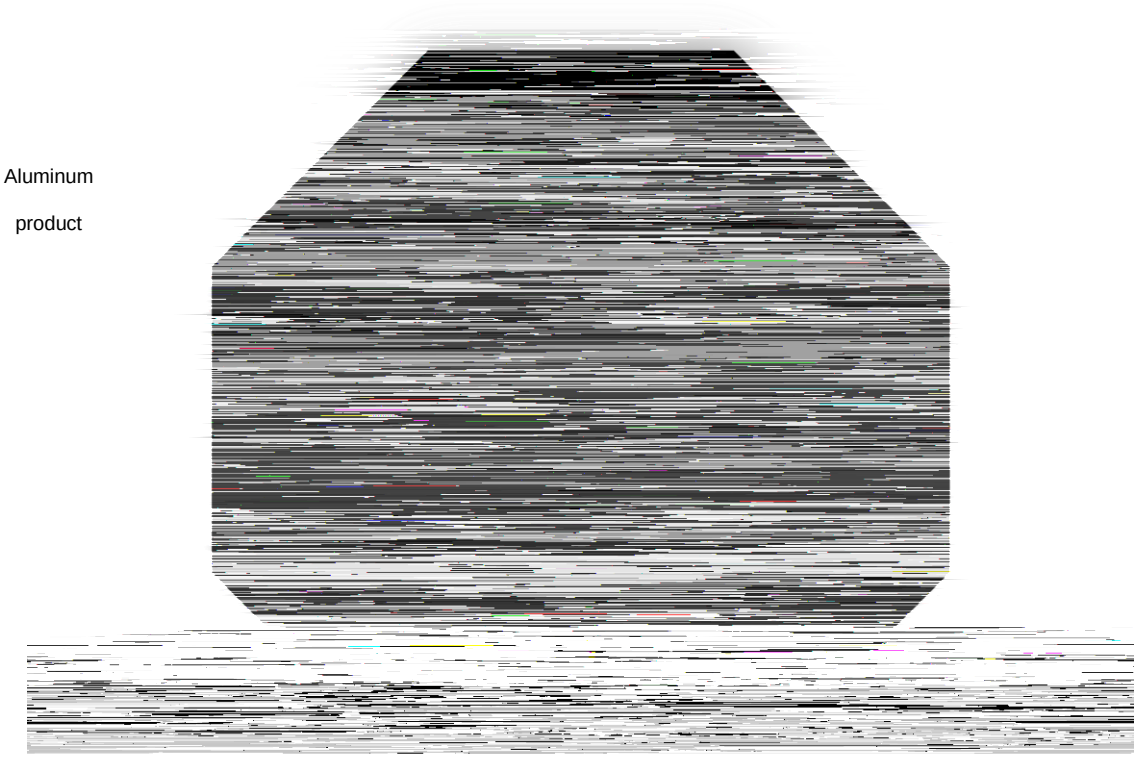
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | PP product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 40526.97 | kg | Raw material acquisition record | 5.1969 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 210.6151 |
| | Purchased raw material | PTFE material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 151885.00 | kg | Raw material acquisition record | 142.9938 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 21718.6158 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | PTFE product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 684.27 | kg | Raw material acquisition record | 143.6500 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 98.2954 |
| | Purchased raw material | PVC material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 717139.00 | kg | Raw material acquisition record | 2.9577 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 2121.0542 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Propane | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 546.00 | | | | | |



| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Aluminum product | | | | | | | |



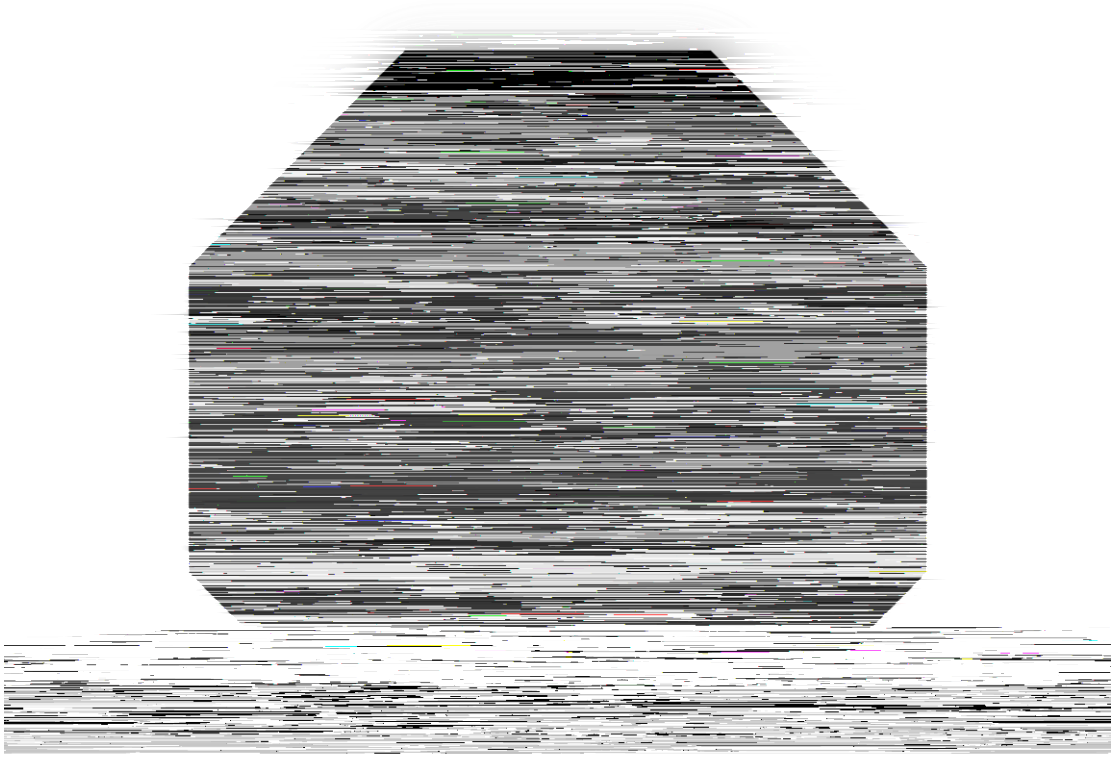
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Nitrogen gas | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 15856.25 | kg | Raw material acquisition record | 0.4471 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 7.0891 |
| | Purchased raw material | Galvanized steel strip | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 3095481.00 | kg | Raw material acquisition record | 3.0112 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 9321.1004 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Galvanized steel wire | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 7849.85 | kg | Raw material acquisition record | 2.9767 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 23.3664 |
| | Purchased raw material | Cable | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 10225216.85 | kg | Raw material acquisition record | 6.2823 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 64238.2961 |

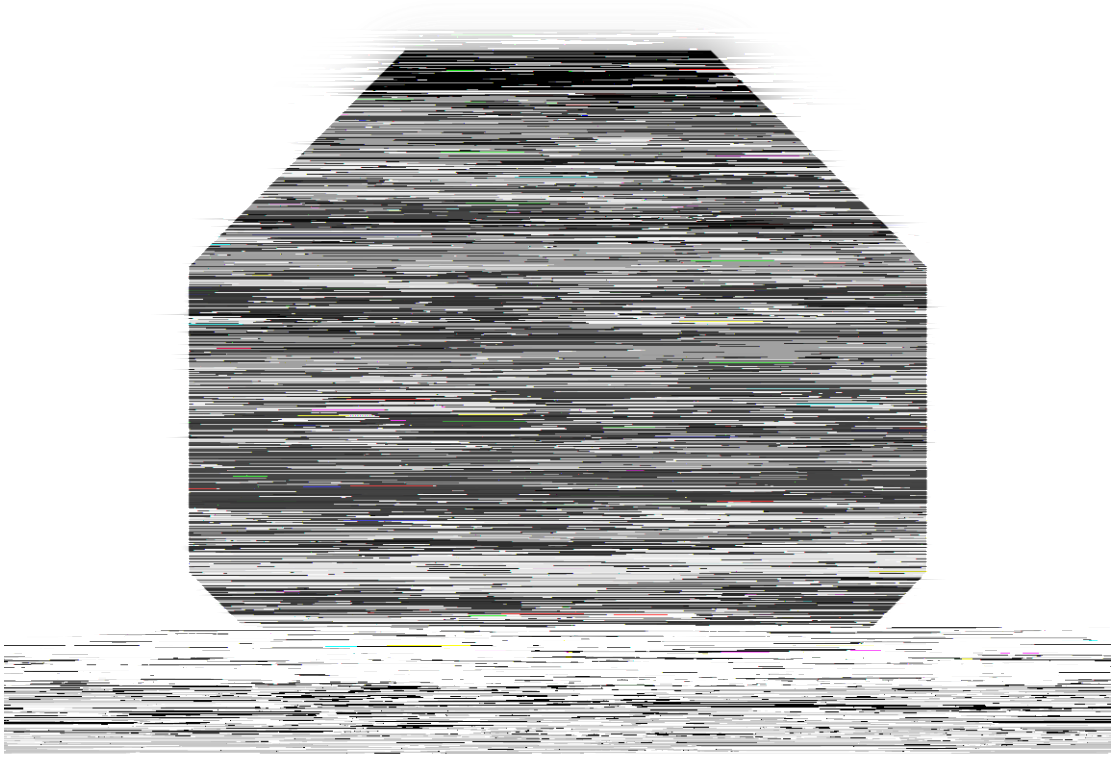
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Power supply | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 825.00 | kg | Raw material acquisition record | 14.2176 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 11.7295 |
| | Purchased raw material | Resistor | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 1197.18 | kg | Raw material acquisition record | 29.0619 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 34.7923 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Optical fiber | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 4157.03 | kg | Raw material acquisition record | 9.5412 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 39.6629 |
| | Purchased raw material | Carbon dioxide | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 44462.60 | kg | Raw material acquisition record | 0.9001 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 40.0224 |

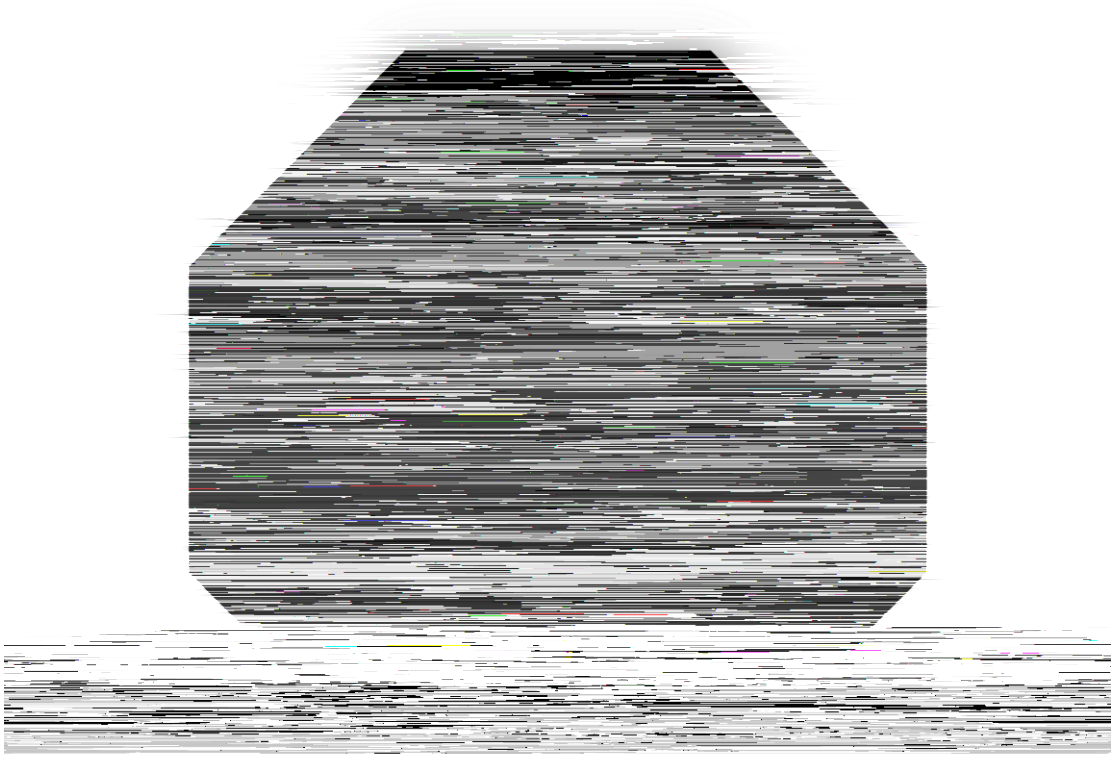
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass |
|---|---|---|---|---|---|---|---|



| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Helium gas | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 5421.00 | kg | Raw material acquisition record | 6.1431 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 33.3018 |
| | Purchased raw material | Combiner | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 8698.35 | kg | Raw material acquisition record | 117.2070 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 1019.5072 |



| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Brass product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 750478.21 | kg | Raw material acquisition record | 9.1348 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 6855.4566 |
| | Purchased raw material | Brass strip | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 4682.70 | kg | Raw material acquisition record | 6.4040 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 29.9878 |



| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Plywood | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 1126963.00 | kg | Raw material acquisition record | 0.8998 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 1014.0485 |
| | Purchased raw material | Metal processing | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 14161.02 | kg | Raw material acquisition record | 4.3206 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 61.1840 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Poly olefin material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 1160.00 | kg | Raw material acquisition record | 2.5188 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 2.9218 |
| | Purchased raw material | Aluminum alloy product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 3000.00 | kg | Raw material acquisition record | 12.0843 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 36.2528 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Wood pallet | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 3314660.00 | kg | Raw material acquisition record | 0.3291 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 1090.6983 |
| | Purchased raw material | Nylon material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 110.30 | kg | Raw material acquisition record | 8.2297 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.9077 |

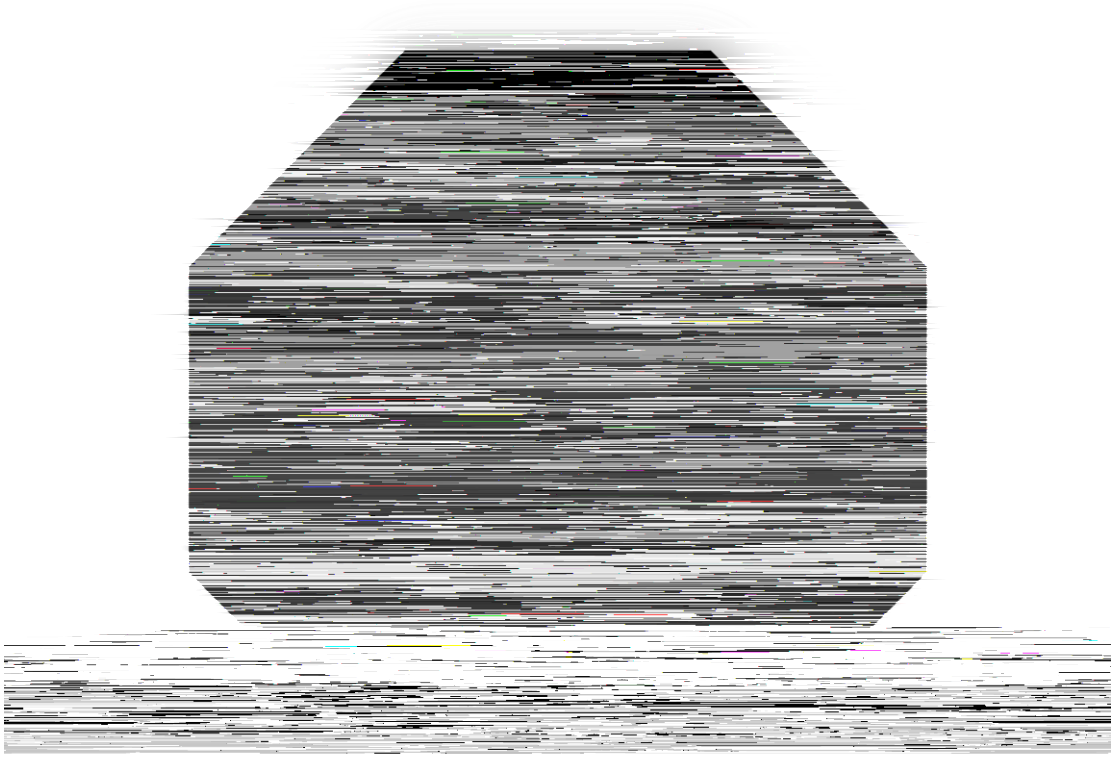
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Nylon product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 206.67 | kg | Raw material acquisition record | 8.8859 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 1.8364 |
| | Purchased raw material | Kraft paper | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 491996.40 | kg | Raw material acquisition record | 0.9620 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 473.3058 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Hot melt adhesive | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 68000.00 | kg | Raw material acquisition record | 3.4399 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 233.9124 |
| | Purchased raw material | Cement | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 11380.50 | kg | Raw material acquisition record | 0.2511 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 2.8580 |

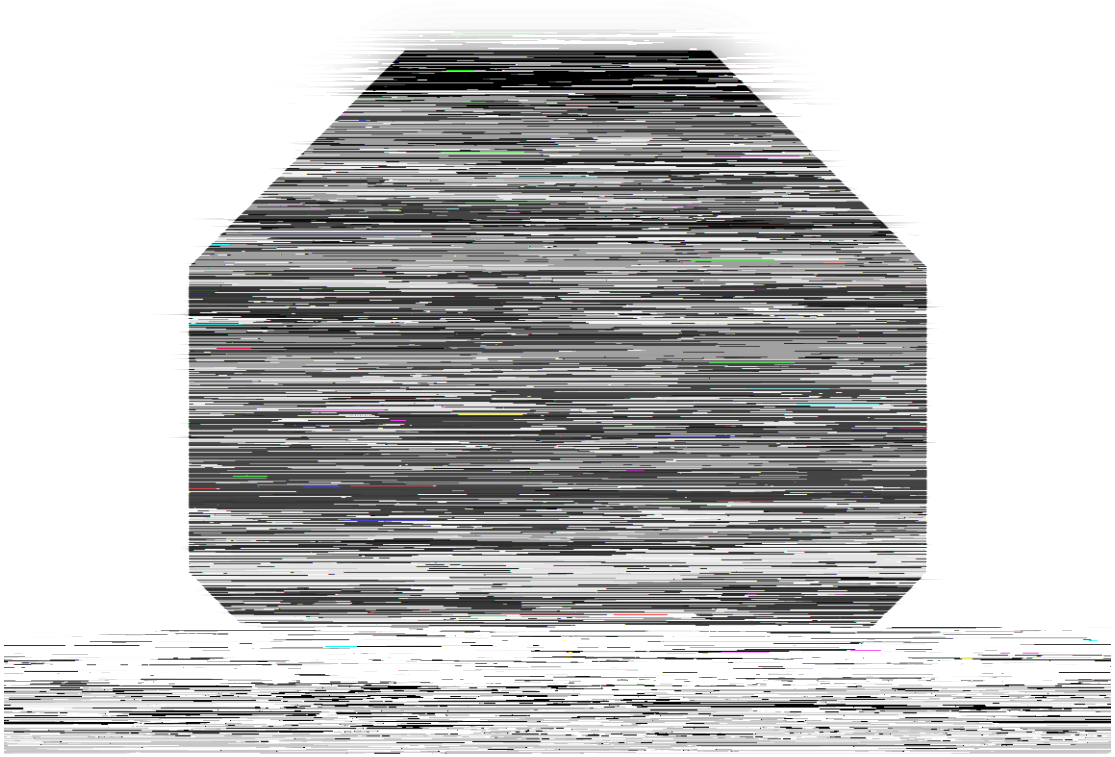
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Wood product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 610.00 | kg | Raw material acquisition record | 0.1093 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.0667 |
| | Purchased raw material | Titanium alloy product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 8899.44 | kg | Raw material acquisition record | 49.3481 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 439.1707 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Carbon steel strip | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 4280.00 | kg | Raw material acquisition record | 2.3472 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 10.0459 |
| | Purchased raw material | Carbon steel wire | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 111882.40 | kg | Raw material acquisition record | 2.3126 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 258.7444 |

| Emission categories |
| --- |



| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | |
|---|---|---|---|---|---|---|---|



| Emission categories | Emission | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Corrugated board | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 203175.50 | kg | Raw material acquisition record | 1.2765 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 259.3501 |
| | Purchased raw material | Cable connector | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method | | | | | | |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Passive electronic component | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 140676.87 | kg | Raw material acquisition record | 63.7453 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 8967.4962 |
| | Purchased raw material | Solder material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 59600.00 | kg | Raw material acquisition record | 28.8498 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 1719.4494 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Rubber | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 60.00 | kg | Raw material acquisition record | 3.4168 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.2050 |
| | Purchased raw material | Argon gas | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 61776.93 | kg | Raw material acquisition record | 2.5263 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 156.0685 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Zinc oxide | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 44826.56 | kg | Raw material acquisition record | 0.7497 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 33.6051 |
| | Purchased raw material | Oxygen gas | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 136.00 | kg | Raw material acquisition record | 1.1268 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.1532 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Ethanol | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 330.00 | kg | Raw material acquisition record | 0.7000 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.2310 |
| | Purchased raw material | Acetylene | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 30.00 | kg | Raw material acquisition record | 2.5385 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.0762 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Isopropanol | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 7240.00 | kg | Raw material acquisition record | 3.3103 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 23.9667 |
| | Purchased raw material | Toner ink | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 225.45 | kg | Raw material acquisition record | 5.8351 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 1.3155 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Active electronic component | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 1178.40 | kg | Raw material acquisition record | 1273.7223 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 1500.9543 |
| | Purchased raw material | Grease | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 33085.00 | kg | Raw material acquisition record | 2.7555 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 91.1655 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Paper product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 1.00 | kg | Raw material acquisition record | 0.9620 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.0010 |
| | Purchased raw material | Bamboo product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method | | | | | | |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Copper-plastic product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 670.00 | kg | Raw material acquisition record | 76.5347 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 51.2782 |
| | Purchased raw material | Anode copper material | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 3195.78 | kg | Raw material acquisition record | 8.5576 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 27.3481 |

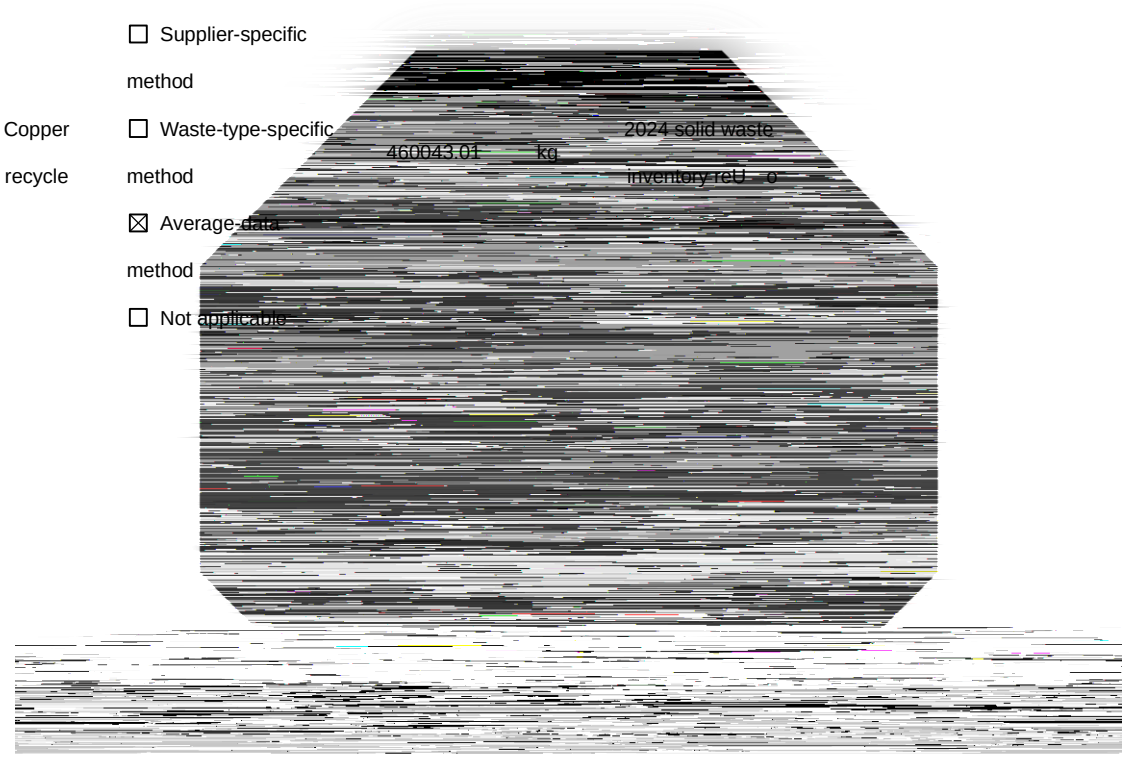
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Anode copper product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 1515352.60 | kg | Raw material acquisition record | 11.8994 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 18031.7812 |
| | Purchased raw material | Anode copper strip | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 7163355.21 | kg | Raw material acquisition record | 9.1686 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 65677.7334 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Anode copper wire | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 1862148.51 | kg | Raw material acquisition record | 9.3533 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 17417.2752 |
| | Purchased raw material | Aluminum-plastic product | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 171075.11 | kg | Raw material acquisition record | 20.9062 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 3576.5329 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Purchased raw material | Indoor antenna | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 28799.48 | kg | Raw material acquisition record | 5.4404 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 156.6816 |
| | Purchased raw material | Outdoor antenna | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 6.88 | kg | Raw material acquisition record | 9.3122 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.0640 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Solid waste treatment | Cable treatment | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 305569.77 | kg | 2024 solid waste inventory record | 0.9103 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 278.1685 |
| | Solid waste treatment | Steel recycle | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 85285.00 | kg | 2024 solid waste inventory record | 0.0000 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.0000 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Solid waste treatment | Copper recycle | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 460043.01 | kg | 2024 solid waste inventory reU o | | | |



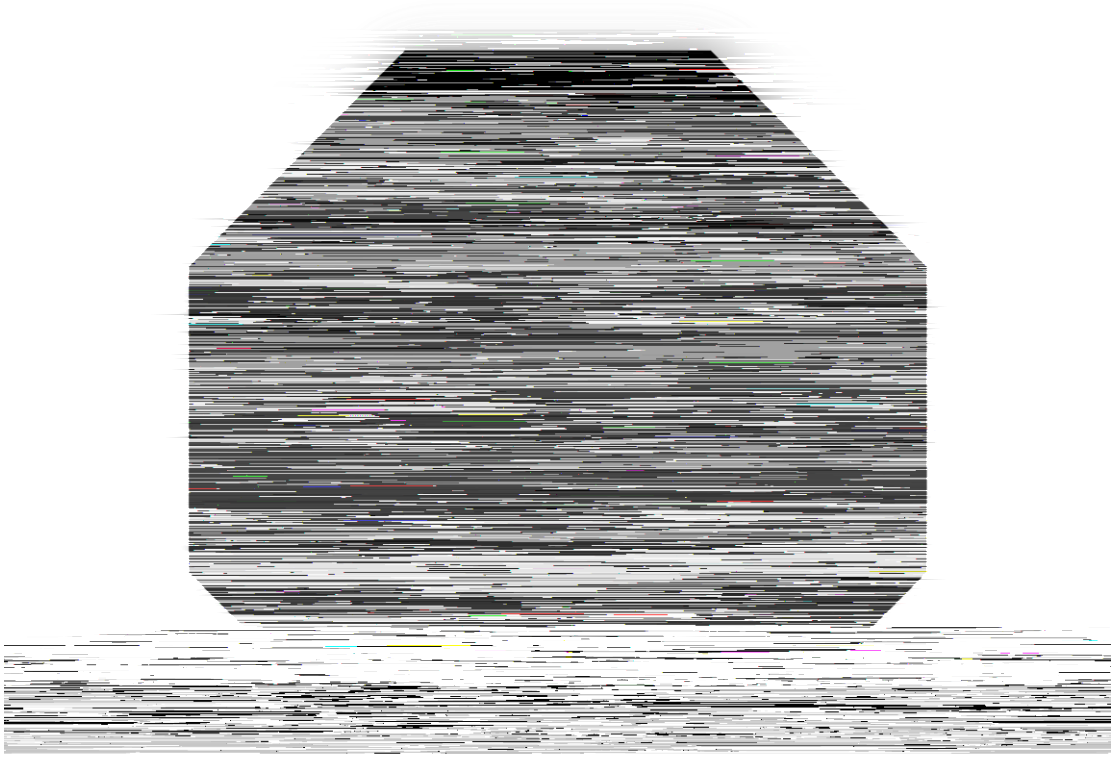
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Solid waste treatment | Equipment recycle | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 7340.00 | kg | 2024 solid waste inventory record | 0.0000 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.0000 |
| | Solid waste treatment | Plastic recycle | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 244959.93 | kg | 2024 solid waste inventory record | 0.0000 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.0000 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Solid waste treatment | Paper board recycle | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 51984.00 | kg | 2024 solid waste inventory record | 0.0000 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.0000 |
| | Solid waste treatment | Wood recycle | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 182100.00 | kg | 2024 solid waste inventory record | 0.0000 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.0000 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Hazardous waste treatment | Waste bucket treatment | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 3.95 | t | 2024 hazardous waste transfer joint order | 2.5237 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 9.9659 |
| | Hazardous waste treatment | Saponified liquid treatment | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 2.28 | t | 2024 hazardous waste transfer joint order | 2.5237 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 5.7539 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Hazardous waste treatment | Waste grease treatment | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 2.14 | t | 2024 hazardous waste transfer joint order | 2.5237 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 5.4006 |
| | Hazardous waste treatment | Waste activated carbon treatment | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 4.45 | t | 2024 hazardous waste transfer joint order | 2.5237 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 11.2303 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Wastewater treatment | Wastewater treatment | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 15232.73 | $m^3$ | Water balance schematic | 0.2921 $kgCO_2e/m^3$ | Ecoinvent 3.10 database | 4.4493 |
| | Diesel | Diesel upstream | Goods, services and capital goods:<br>☐ Supplier-specific method<br>☐ Hybrid method<br>☒ Average-data method<br>☐ Spend-based method<br>☐ Not applicable | 13596.895 | kg | 2024 diesel purchase record | 0.9416 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 12.8027 |



| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| **Category 5: indirect GHG emissions associated with the use of products from the organization** | Product disposal | Waste ABS | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 640.00 | kg | Raw material acquisition record | 2.3799 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 1.5232 |
| | Product disposal | Waste PP | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 55183.53 | kg | Raw material acquisition record | 2.6179 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 144.4671 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Product disposal | Waste rubber | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 30.00 | kg | Raw material acquisition record | 3.1577 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 0.0947 |
| | Product disposal | Other waste plastics | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 9945465.74 | kg | Raw material acquisition record | 2.3799 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 23669.4469 |

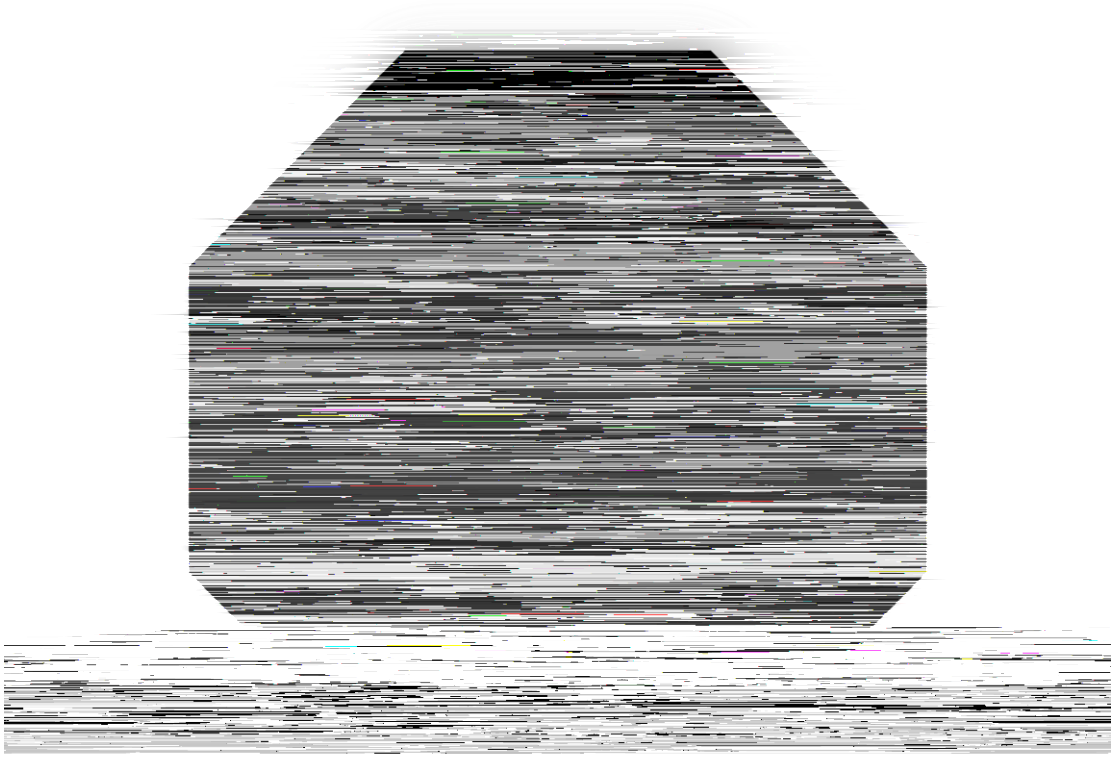
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Product disposal | Waste electronic component | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 743444.20 | kg | Raw material acquisition record | 1.0655 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 792.1635 |
| | Product disposal | Waste wood | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 2221116.50 | kg | Raw material acquisition record | 0.0156 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 34.6067 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Product disposal | Waste paper | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 695172.90 | kg | Raw material acquisition record | 0.0335 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 23.2878 |
| | Product disposal | Waste cable | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 10225216.85 | kg | Raw material acquisition record | 0.9103 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 9308.2946 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Product disposal | Waste steel | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 1802998.94 | kg | Raw material acquisition record | 0.0186 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 33.5421 |
| | Product disposal | Waste aluminum | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 517234.53 | kg | Raw material acquisition record | 0.0261 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 13.4936 |

| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Product disposal | Waste copper | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 4709416.68 | kg | Raw material acquisition record | 0.0234 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 110.1286 |
| | Product disposal | Other waste metal | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 21490.40 | kg | Raw material acquisition record | 0.5189 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 11.1524 |

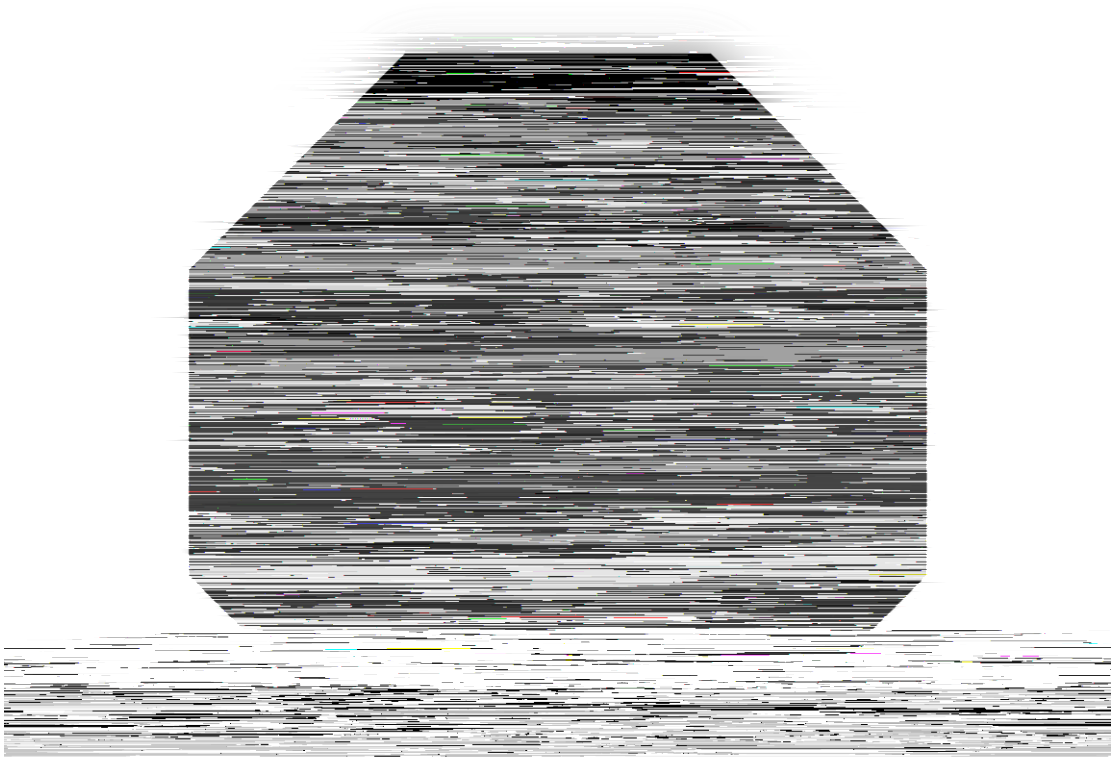
| Emission categories | Emission source | Facilities or process | Accounting method | Activity data | Unit | Source of activity data | Emission factor/Mass balance coefficient | Source of activity data | GHG emission ($tCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| | Product disposal | Metal-plastic mixed waste | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 1197705.98 | kg | Raw material acquisition record | 0.5189 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 621.5466 |
| | Product disposal | Other waste | Waste:<br>☐ Supplier-specific method<br>☐ Waste-type-specific method<br>☒ Average-data method<br>☐ Not applicable | 235905.98 | kg | Raw material acquisition record | 0.5189 $kgCO_2e/kg$ | Ecoinvent 3.10 database | 122.4228 |



**Global warming potential**

The global warming potentials of direct and indirect greenhouse gases emitted by the enterprise were taken from the IPCC sixth assessment report, which meet the requirements of the guidelines. The specific values are as follows:

| Gas name | Types of greenhouse gases involved in the verification process | Global warming potential |
|---|---|---|
| **Carbon dioxide** | $CO_2$ | 1 |
| [redacted] | $CH_4$ | 27.9 |
| **Nitrous oxide** | $N_2O$ | 273 |



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Anthropogenic biogenic $CO_2$ emissions** | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Anthropogenic biogenic other GHG emissions** | 64.8893 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 64.8893 |
| **Total** | 195.3576 | 7483.0827 | 23451.2019 | 432536.2641 | 35545.1321 | 0.0000 | 499211.0385 |

| **GHG emission analysis** | |
|---|---|
| **Analysis of emissions of different categories of emission sources** | · Among the emission categories, anode copper strip is the largest emission category, accounting for about 13.16%.<br>· To fulfil corporate social responsibility and reduce the organization's carbon emissions, it is recommended to find green supplier and incentivize supplier's energy reduction and greener design. |
| **Analysis on emissions of different greenhouse gas emission categories** | · Among the emission categories, category 4 is the largest emission category, accounting for about 86.64%.<br>· Among category 1, $CH_4$ is the largest emission GHG, mainly from septic tank fugitive emission.<br>· Among category 2, $CO_2$ is the largest emission GHG, mainly from grid electricity emission. |

**Uncertainty analysis**

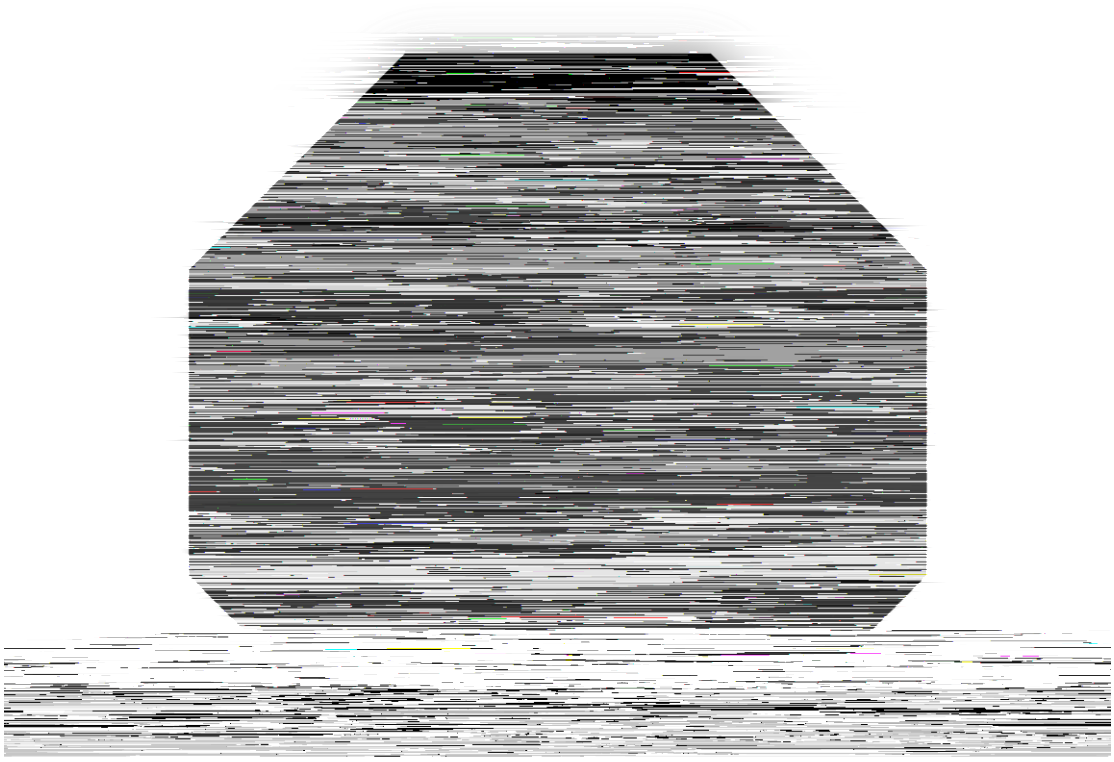
The uncertainty assessment of data needs to consider three aspects: activity data category, emission factor grade and instrument calibration grade. The average value is calculated according to the assignment of activity data classification, emission factor grade and instrument calibration grade, and then multiplied by the percentage of each emission source, and then the overall uncertainty score is obtained by summing.

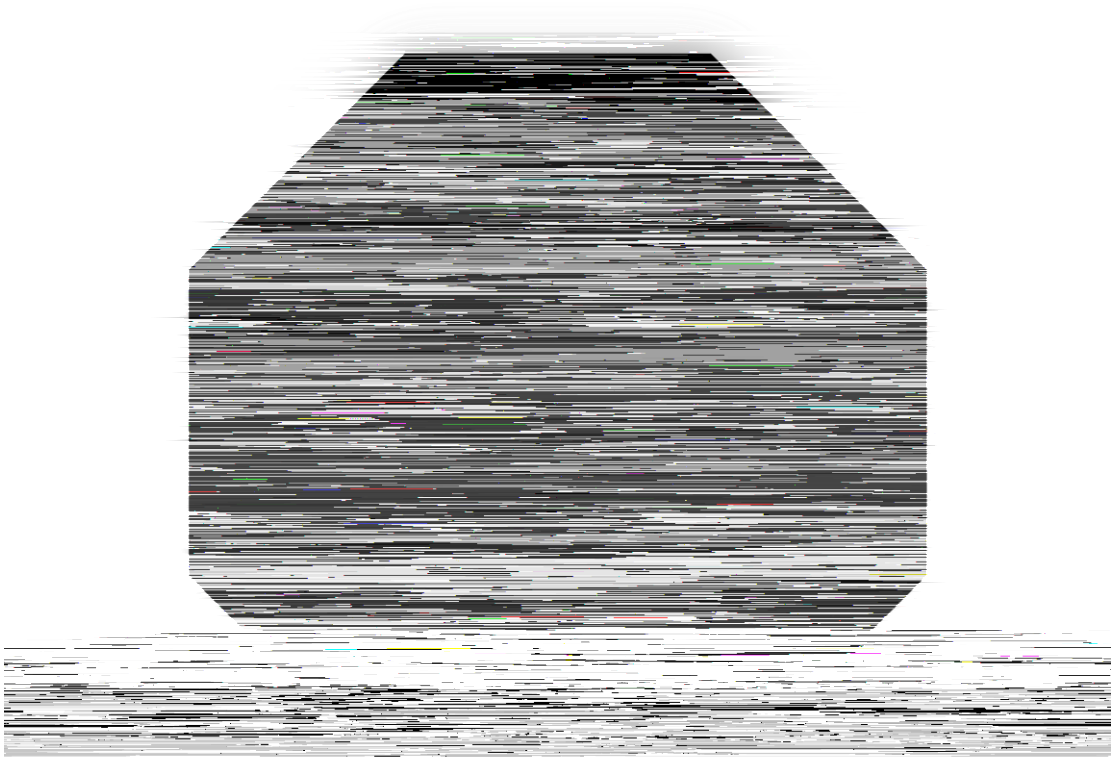
1）Activity data is divided into three categories according to the collection category, and assigned a score of 1, 3, and 6 respectively

2）Emission factor categories and grades are divided into six categories according to the source of collection, and assigned scores of 6, 5, 4, 3, 2 and 1 respectively. For details, see Table 3-8.

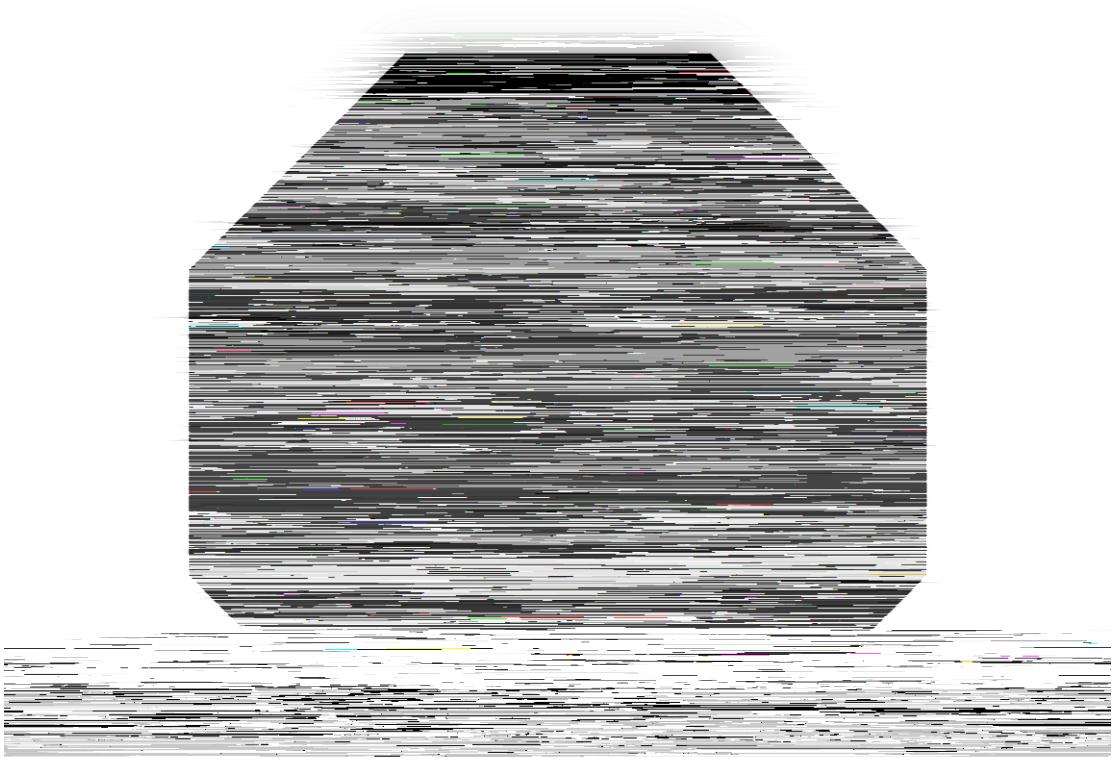
3）The calibration level of the instrument is assigned a score of 6, 3 and 1 according to the calibration situation.

4）The data level is divided into five levels, the higher the level, the better the data quality

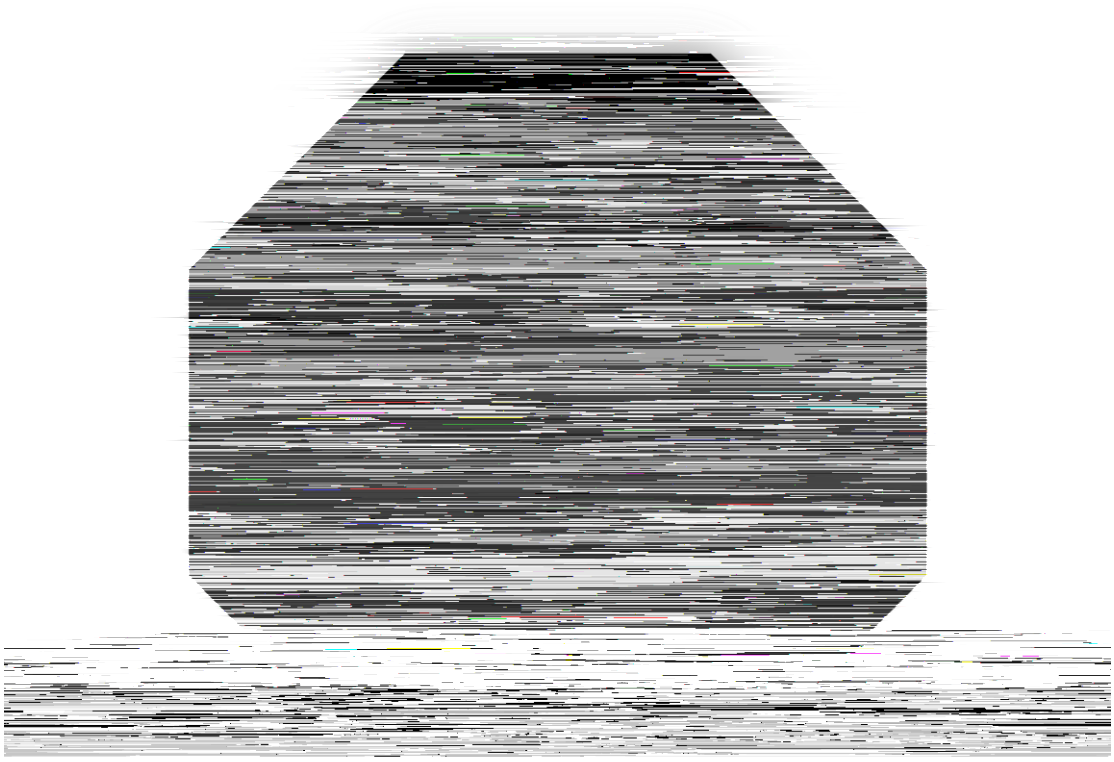


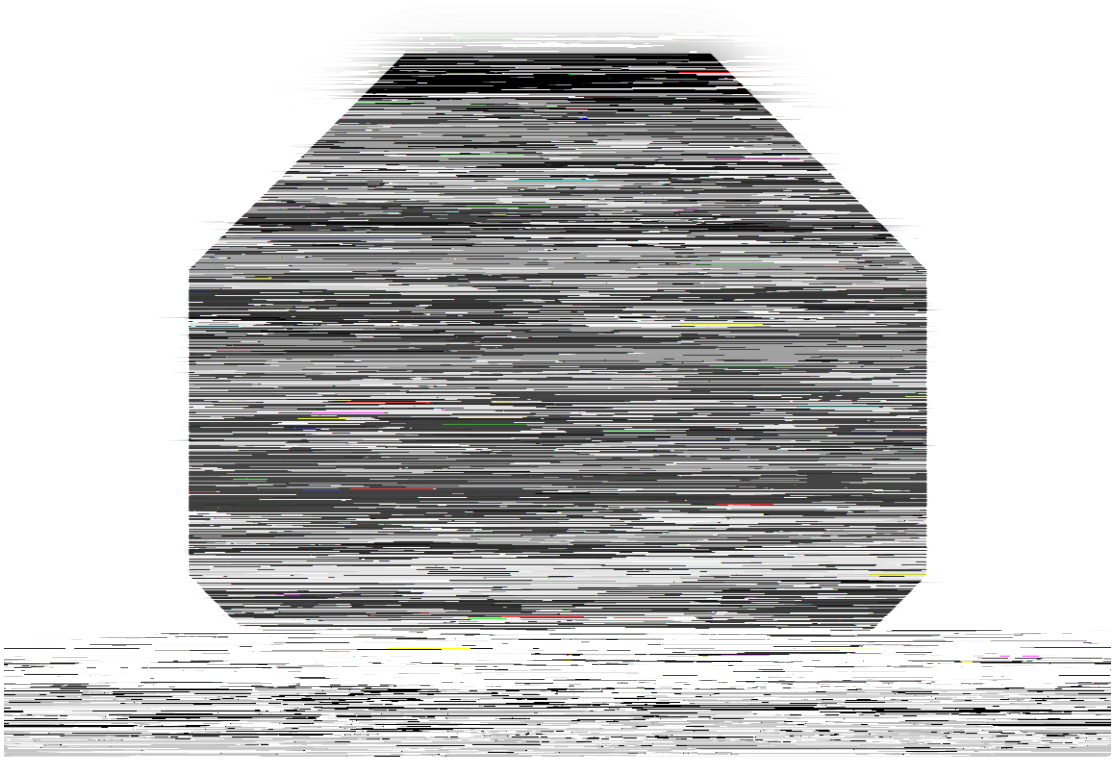


| No. | Emission categories | Facilities | Activity data categories | Emission factor categories | Instrument calibration categories | Average score | Total emission ($tCO_2e$) | Emission proportion | Weighted average score |
|---|---|---|---|---|---|---|---|---|---|
| 14 | Employee commuting vehicle | Outsourcing vehicle | 1 | 1 | 3 | 1.67 | 162.0829 | 0.03% | 0.0005 |
| 15 | Employee commuting electric vehicle | Outsourcing electric vehicle | 1 | 1 | 3 | 1.67 | 68.6778 | 0.01% | 0.0002 |
| 16 | Employee commuting electric bike | Outsourcing electric bike | 1 | 1 | 3 | 1.67 | 6.5222 | 0.00% | 0.0000 |
| 17 | Employee taxi traveling | Taxi traveling | 3 | 1 | 3 | 2.33 | 0.4031 | 0.00% | 0.0000 |
| 18 | Employee plane traveling | Plane traveling | 3 | 1 | 3 | 2.33 | 17.5831 | 0.00% | 0.0001 |
| 19 | Employee rail traveling | Rail traveling | 3 | 1 | 3 | 2.33 | 9.7753 | 0.00% | 0.0000 |
| 20 | Employee subway traveling | Subway traveling | 3 | 1 | 3 | 2.33 | 0.000012 | 0.00% | 0.0000 |
| 21 | Employee bus traveling | Bus traveling | 3 | 1 | 3 | 2.33 | 0.0324 | 0.00% | 0.0000 |
| 22 | Upstream material transportation | Upstream material road transportation <3.5t | 3 | 1 | 3 | 2.33 | 1393.3173 | 0.28% | 0.0065 |



| No. | Emission categories | Facilities | Activity |
|---|---|---|---|



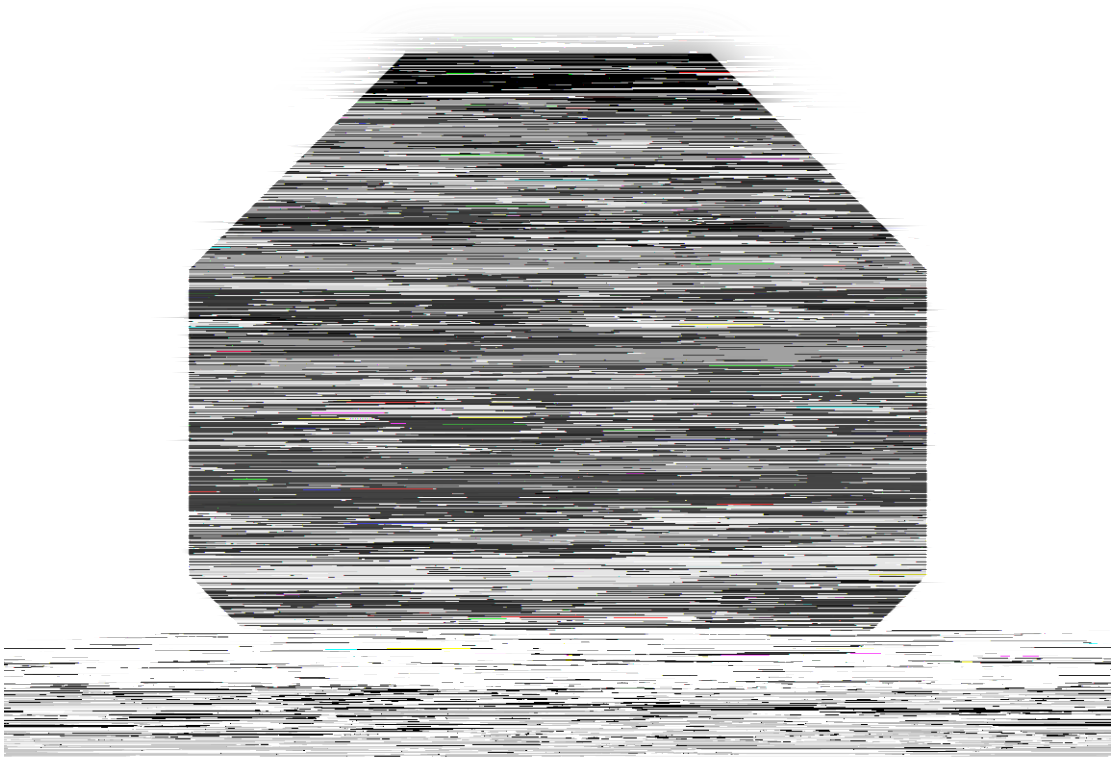


| No. | Emission categories | Facilities | Activity data categories | Emission factor categories | Instrument calibration categories | Average score | Total emission ($tCO_2e$) | Emission proportion | Weighted average score |
|---|---|---|---|---|---|---|---|---|---|
| 53 | Purchased raw material | PET product | 3 | 1 | 3 | 2.33 | 364.9446 | 0.07% | 0.0017 |
| 54 | Purchased raw material | PE film | 3 | 1 | 3 | 2.33 | 540.4540 | 0.11% | 0.0025 |
| 55 | Purchased raw material | PFA material | 3 | 1 | 3 | 2.33 | 17.8742 | 0.00% | 0.0001 |
| 56 | Purchased raw material | PO material | 3 | 1 | 3 | 2.33 | 5353.7377 | 1.07% | 0.0250 |
| 57 | Purchased raw material | PP material | 3 | 1 | 3 | 2.33 | 355.4863 | 0.07% | 0.0017 |
| 58 | Purchased raw material | PP plastic strip | 3 | 1 | 3 | 2.33 | 2.8465 | 0.00% | 0.0000 |
| 59 | Purchased raw material | PP product | 3 | 1 | 3 | 2.33 | 210.6151 | 0.04% | 0.0010 |
| 60 | Purchased raw material | PTFE material | 3 | 1 | 3 | 2.33 | 21718.6158 | 4.35% | 0.1014 |
| 61 | Purchased raw material | PTFE product | 3 | 1 | 3 | 2.33 | 98.2954 | 0.02% | 0.0005 |
| 62 | Purchased raw material | PVC material | 3 | 1 | 3 | 2.33 | 2121.0542 | 0.42% | 0.0099 |
| 63 | Purchased raw material | Propane | 3 | 1 | 3 | 2.33 | 0.5913 | 0.00% | 0.0000 |

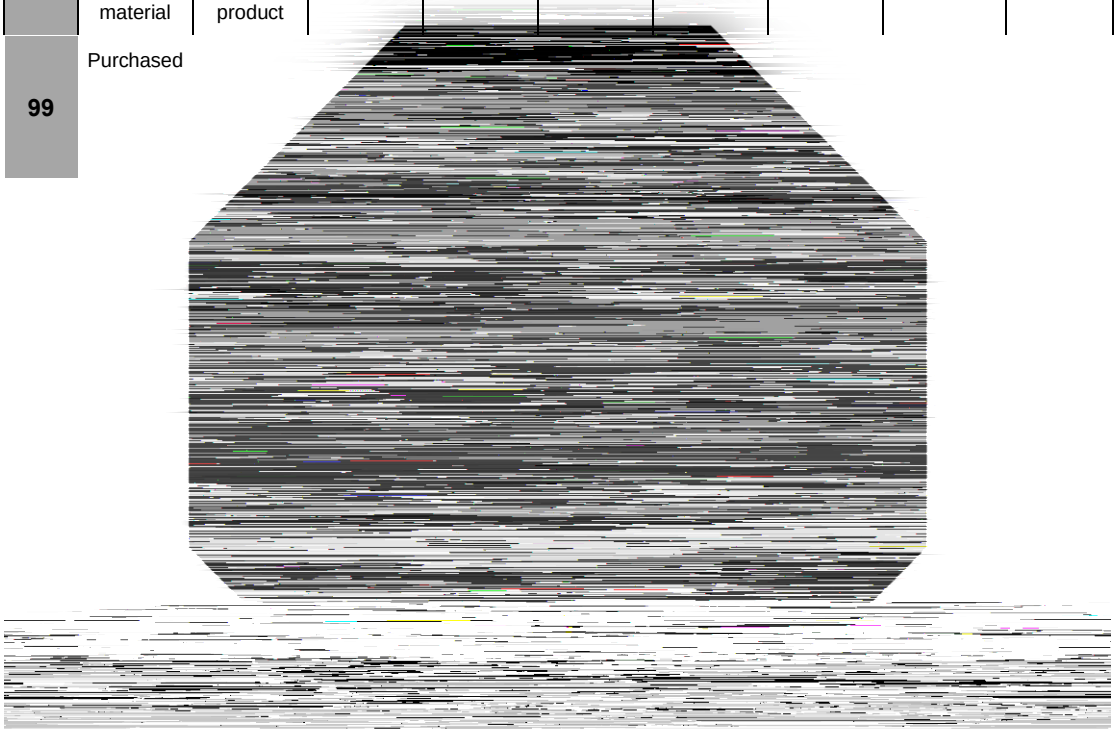
| No. | Emission categories | Facilities | Activity data categories | Emission factor categories | Instrument calibration categories | Average score | Total emission ($tCO_2e$) | Emission proportion | Weighted average score |
|---|---|---|---|---|---|---|---|---|---|
| 64 | Purchased raw material | Glass fiber material | 3 | 1 | 3 | 2.33 | 9.0274 | 0.00% | 0.0000 |
| 65 | Purchased raw material | Stainless steel wire | 3 | 1 | 3 | 2.33 | 10.0112 | 0.00% | 0.0000 |
| 66 | Purchased raw material | Stainless steel product | 3 | 1 | 3 | 2.33 | 42951.1381 | 8.60% | 0.2005 |
| 67 | Purchased raw material | Aluminum product | 3 | 1 | 3 | 2.33 | 42.6357 | 0.01% | 0.0002 |
| 68 | Purchased raw material | Aluminum strip | 3 | 1 | 3 | 2.33 | 41697.9448 | 8.35% | 0.1946 |
| 69 | Purchased raw material | Nitrogen gas | 3 | 1 | 3 | 2.33 | 7.0891 | 0.00% | 0.0000 |
| 70 | Purchased raw material | Galvanized steel strip | 3 | 1 | 3 | 2.33 | 9321.1004 | 1.87% | 0.0435 |
| 71 | Purchased raw material | Galvanized steel wire | 3 | 1 | 3 | 2.33 | 23.3664 | 0.00% | 0.0001 |
| 72 | Purchased raw material | Cable | 3 | 1 | 3 | 2.33 | 64238.2961 | 12.87% | 0.2998 |
| 73 | Purchased raw material | Power supply | 3 | 1 | 3 | 2.33 | 11.7295 | 0.00% | 0.0001 |
| 74 | Purchased raw material | Resistor | 3 | 1 | 3 | 2.33 | 34.7923 | 0.01% | 0.0002 |

| No. | Emission categories | Facilities | Activity data categories | Emission factor categories | Instrument calibration categories | Average score | Total emission ($tCO_2e$) | Emission proportion | Weighted average score |
|---|---|---|---|---|---|---|---|---|---|
| 75 | Purchased raw material | Optical fiber | 3 | 1 | 3 | 2.33 | 39.6629 | 0.01% | 0.0002 |
| 76 | Purchased raw material | Carbon dioxide | 3 | 1 | 3 | 2.33 | 40.0224 | 0.01% | 0.0002 |
| 77 | Purchased raw material | Silicone product | 3 | 1 | 3 | 2.33 | 0.7106 | 0.00% | 0.0000 |
| 78 | Purchased raw material | Mica strip | 3 | 1 | 3 | 2.33 | 9.8448 | 0.00% | 0.0000 |
| 79 | Purchased raw material | Helium gas | 3 | 1 | 3 | 2.33 | 33.3018 | 0.01% | 0.0002 |
| 80 | Purchased raw material | Combiner | 3 | 1 | 3 | 2.33 | 1019.5072 | 0.20% | 0.0048 |
| 81 | Purchased raw material | Chemicals | 3 | 1 | 3 | 2.33 | 7.7005 | 0.00% | 0.0000 |
| 82 | Purchased raw material | Brass material | 3 | 1 | 3 | 2.33 | 0.0163 | 0.00% | 0.0000 |
| 83 | Purchased raw material | Brass product | 3 | 1 | 3 | 2.33 | 6855.4566 | 1.37% | 0.0320 |
| 84 | | | | | | | | | |

| No. | Emission categories | Facilities | Activity |
|---|---|---|---|



| No. | Emission categories | Facilities | Activity data categories | Emission factor categories | Instrument calibration categories | Average score | Total emission ($tCO_2e$) | Emission proportion | Weighted average score |
|---|---|---|---|---|---|---|---|---|---|
| 97 | Purchased raw material | Wood product | 3 | 1 | 3 | 2.33 | 0.0667 | | 0.0000 |
| 98 | Purchased raw material | Titanium alloy product | 3 | 1 | 3 | 2.33 | 439.1707 | 0.09% | 0.0020 |
| 99 | Purchased | | | | | | | | |



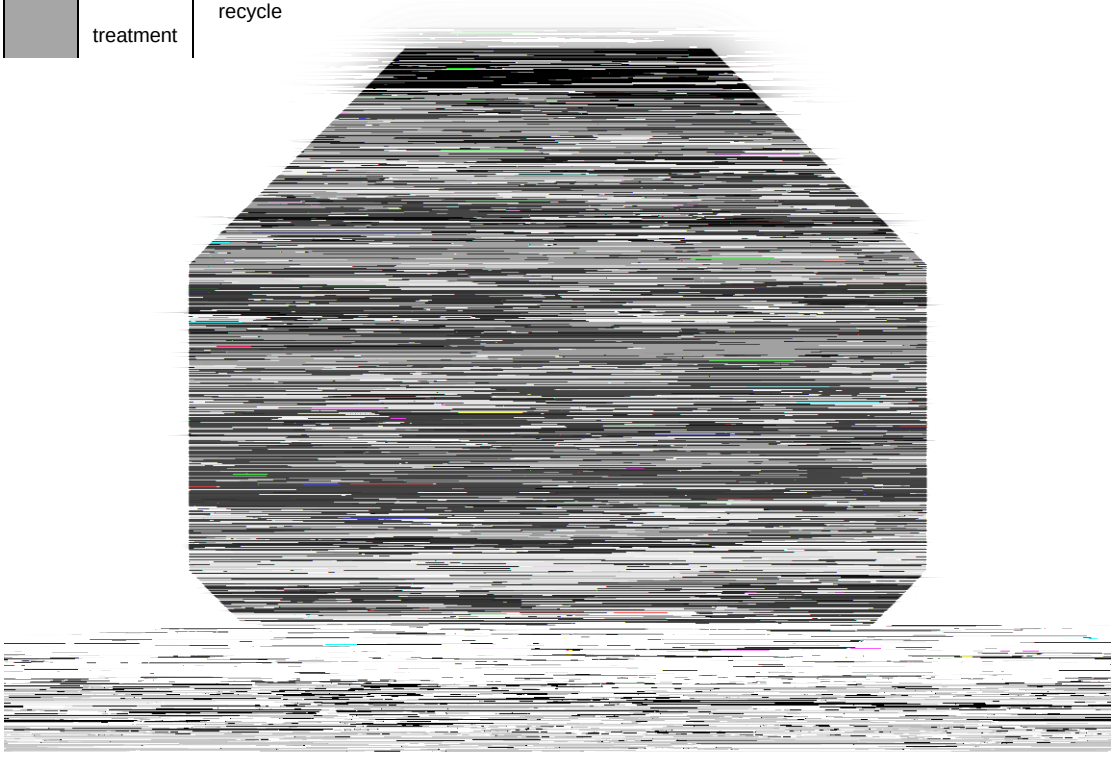


5 556.027.9

| No. | Emission categories | Facilities | Activity data categories | Emission factor categories | Instrument calibration categories | Average score | Total emission ($tCO_2e$) | Emission proportion | Weighted average score |
|---|---|---|---|---|---|---|---|---|---|
| 107 | Purchased raw material | Passive electronic component | 3 | 1 | 3 | 2.33 | 8967.4962 | 1.80% | 0.0419 |
| 108 | Purchased raw material | Solder material | 3 | 1 | 3 | 2.33 | 1719.4494 | 0.34% | 0.0080 |
| 109 | Purchased raw material | Rubber | 3 | 1 | 3 | 2.33 | 0.2050 | 0.00% | 0.0000 |
| 110 | Purchased raw material | Argon gas | 3 | 1 | 3 | 2.33 | 156.0685 | 0.03% | 0.0007 |
| 111 | Purchased raw material | Zinc oxide | 3 | 1 | 3 | 2.33 | 33.6051 | 0.01% | 0.0002 |
| 112 | Purchased raw material | Oxygen gas | 3 | 1 | 3 | 2.33 | 0.1532 | 0.00% | 0.0000 |
| 113 | Purchased raw material | Ethanol | 3 | 1 | 3 | 2.33 | 0.2310 | 0.00% | 0.0000 |
| 114 | Purchased raw material | Acetylene | 3 | 1 | 3 | 2.33 | 0.0762 | 0.00% | 0.0000 |
| 115 | Purchased raw material | Isopropanol | 3 | 1 | 3 | 2.33 | 23.9667 | 0.00% | 0.0001 |
| 116 | Purchased raw material | Toner ink | 3 | 1 | 3 | 2.33 | 1.3155 | 0.00% | 0.0000 |
| 117 | Purchased raw material | Active electronic component | 3 | 1 | 3 | 2.33 | 1500.9543 | 0.30% | 0.0070 |

| No. | Emission categories | Facilities | Activity data categories | Emission factor categories | Instrument calibration categories | Average score | Total emission ($tCO_2e$) | Emission proportion | Weighted average score |
|---|---|---|---|---|---|---|---|---|---|
| 118 | Purchased raw material | Grease | 3 | 1 | 3 | 2.33 | 91.1655 | 0.02% | 0.0004 |
| 119 | Purchased raw material | Paper product | 3 | 1 | 3 | 2.33 | 0.0010 | 0.00% | 0.0000 |
| 120 | Purchased raw material | Bamboo product | 3 | 1 | 3 | 2.33 | 64.4002 | 0.01% | 0.0003 |
| 121 | Purchased raw material | Copper-plastic product | 3 | 1 | 3 | 2.33 | 51.2782 | 0.01% | 0.0002 |
| 122 | Purchased raw material | Anode copper material | 3 | 1 | 3 | 2.33 | 27.3481 | 0.01% | 0.0001 |
| 123 | Purchased raw material | Anode copper product | 3 | 1 | 3 | 2.33 | 18031.7812 | 3.61% | 0.0842 |
| 124 | Purchased raw material | Anode copper strip | 3 | 1 | 3 | 2.33 | 65677.7334 | 13.16% | 0.3066 |
| 125 | Purchased raw material | Anode copper wire | 3 | 1 | 3 | 2.33 | 17417.2752 | 3.49% | 0.0813 |
| 126 | Purchased raw material | Aluminum-plastic product | 3 | 1 | 3 | 2.33 | 3576.5329 | 0.72% | 0.0167 |
| 127 | Purchased raw material | Indoor antenna | 3 | 1 | 3 | 2.33 | 156.6816 | 0.03% | 0.0007 |
| 128 | Purchased raw material | Outdoor antenna | 3 | 1 | 3 | 2.33 | 0.0640 | 0.00% | 0.0000 |

| No. | Emission categories | Facilities | Activity data categories | Emission factor categories | Instrument calibration categories | Average score | Total emission ($tCO_2e$) | Emission proportion | Weighted average score |
|---|---|---|---|---|---|---|---|---|---|
| **129** | Solid waste treatment | Cable treatment | 3 | 1 | 3 | 2.33 | 278.1685 | 0.06% | 0.0013 |
| **130** | Solid waste treatment | Steel recycle | 3 | 1 | 3 | 2.33 | 0.0000 | 0.00% | 0.0000 |



| No. | Emission categories | Facilities | Activity data categories | Emission factor categories | Instrument calibration categories | Average score | Total emission ($tCO_2e$) | Emission proportion | Weighted average score |
|---|---|---|---|---|---|---|---|---|---|
| 140 | Hazardous waste treatment | Waste activated carbon treatment | 3 | 1 | 3 | 2.33 | 11.2303 | 0.00% | 0.0001 |
| 141 | Wastewater treatment | Wastewater treatment | 3 | 1 | 3 | 2.33 | 4.4493 | 0.00% | 0.0000 |
| 142 | Diesel | Diesel upstream | 3 | 1 | 3 | 2.33 | 12.8027 | 0.00% | 0.0001 |
| 143 | Imported electricity | Electricity upstream production | 3 | 2 | 3 | 2.67 | 1374.5736 | 0.28% | 0.0074 |
| 144 | Imported electricity | Electricity transmission and distribution loss | 3 | 2 | 3 | 2.67 | 462.5893 | 0.09% | 0.0025 |
| 145 | Imported electricity | Photovoltaic electricity | 3 | 2 | 3 | 2.67 | 203.6972 | 0.04% | 0.0011 |
| 146 | Product disposal | Waste ABS | 3 | 1 | 3 | 2.33 | 1.5232 | 0.00% | 0.0000 |
| 147 | Product disposal | Waste PP | 3 | 1 | 3 | 2.33 | 144.4671 | 0.03% | 0.0007 |
| 148 | Product disposal | Waste rubber | 3 | 1 | 3 | 2.33 | 0.0947 | 0.00% | 0.0000 |
| 149 | Product disposal | Other waste plastics | 3 | 1 | 3 | 2.33 | 23669.4469 | 4.74% | 0.1105 |
| 150 | Product disposal | Waste electronic component | 3 | 1 | 3 | 2.33 | 792.1635 | 0.16% | 0.0037 |
| 151 | Product disposal | Waste wood | 3 | 1 | 3 | 2.33 | 34.6067 | 0.01% | 0.0002 |

| No. | Emission categories | Facilities | Activity data categories | Emission factor categories | Instrument calibration categories | Average score | Total emission ($tCO_2e$) | Emission proportion | Weighted average score |
|---|---|---|---|---|---|---|---|---|---|
| 152 | Product disposal | Waste paper | 3 | 1 | 3 | 2.33 | 23.2878 | 0.00% | 0.0001 |
| 153 | Product disposal | Waste cable | 3 | 1 | 3 | 2.33 | 9308.2946 | 1.86% | 0.0434 |
| 154 | Product disposal | Waste steel | 3 | 1 | 3 | 2.33 | 33.5421 | 0.01% | 0.0002 |
| 155 | Product disposal | Waste aluminum | 3 | 1 | 3 | 2.33 | 13.4936 | 0.00% | 0.0001 |
| 156 | Product disposal | Waste copper | 3 | 1 | 3 | 2.33 | 110.1286 | 0.02% | 0.0005 |
| 157 | Product disposal | Other waste metal | 3 | 1 | 3 | 2.33 | 11.1524 | 0.00% | 0.0001 |
| 158 | Product disposal | Metal-plastic mixed waste | 3 | 1 | 3 | 2.33 | 621.5466 | 0.12% | 0.0029 |
| 159 | Product disposal | Other waste | 3 | 1 | 3 | 2.33 | 122.4228 | 0.02% | 0.0006 |
| 160 | Product disposal transportation | Waste transportation | 3 | 1 | 3 | 2.33 | 658.9617 | 0.13% | 0.0031 |
| | Total | / | / | / | / | / | 499211.0385 | 100.00% | 2.3233 |
| | **Weighted total** | | | | | | | | **2.32** |
| | **Weighted level** | | | | | | | | **4** |

| | |
|---|---|
| **uncertainty analysis** | - Three factors, namely activity level data, emission factor and correction level, were evaluated.<br>- Activity level data with low accuracy level include employee commuting, septic tank and other data. The responsible party should obtain activity level data by measured method as far as possible to improve data accuracy under the condition of technical feasibility and reasonable cost.<br>- The lower level of accuracy of emission factor data is the data from purchased raw material, solid waste treatment, upstream & downstream material transportation, product disposal and other data. It is suggested that the responsible party adopt the detection method for characteristic emission factors to obtain a higher level of data accuracy.<br>- Responsible parties are advised to incorporate calibration of monitoring equipment involving carbon activity level data |

| **Material discrepancy** |
|---|
| After verification, the total greenhouse gas emissions of the responsible party at the organizational level in 2024-01-01~2024-12-31 were 499211.0385 $tCO_2e$, and the emissions reported by the greenhouse gas inventory were 499211.0385 $tCO_2e$. Therefore, the material deviation claimed by the responsible party is within the material threshold of verification. |

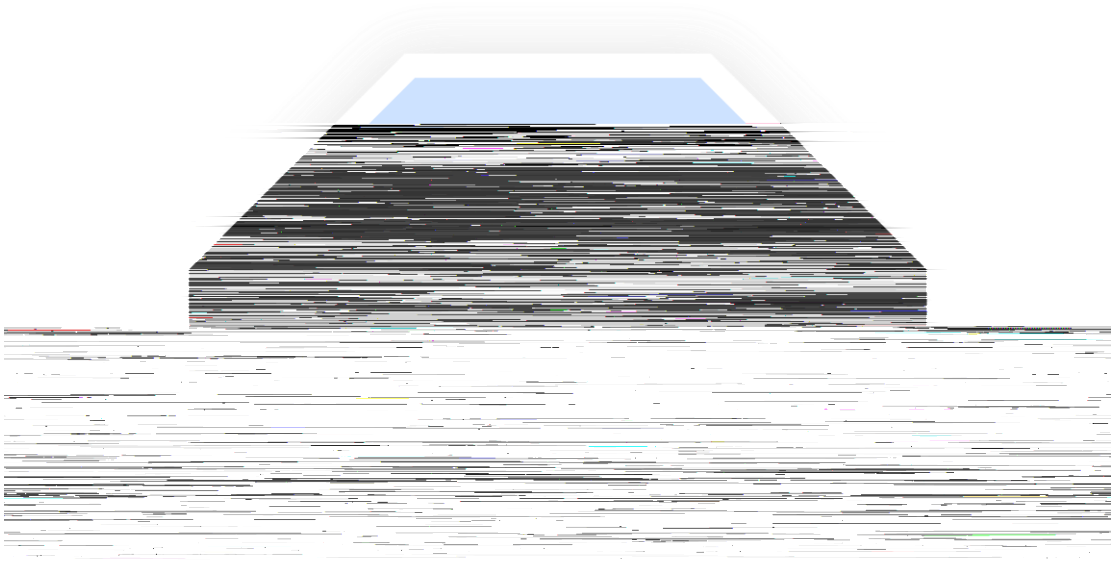
## 3.3. Assessment of changes from prior period

The reporting boundary in 2023 from the responsible party is category 1 and category 2, and the organizational boundary in 2023 from the responsible party is No 105 Qixin Road, Economic & Technological Development Zone, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA. The reporting boundary in 2024 from the responsible party is category 1-6, and the organizational boundary in 2024 from the responsible party is No 105 Qixin Road, Economic & Technological Development Zone, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA, No 1 Tianchi Road, Hekou Town, Rudong, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA, Second Floor of Office Building 3, Zhongtian Industrial Park, Hekou Town, Rudong, Nantong, Jiangsu Province, PEOPLE'S REPUBLIC OF CHINA. As both the reporting boundary and organizational boundary were changed in 2024, the base year was adjusted to 2024-01-01~2024-12-31.

## 4. Reference Documents

1) ISO 14064-1:2018 *Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*

2)



## Verification team qualifications:

**Team leader Johny Wang:**

