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CALCULATION

CO₂ EMISSION AMOUNT FOR 2021
IS **18,069** CO₂-e/TON

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STANDARD 100





ISO 14064-1 GHG Inventory Report

For Reporting PERIOD: 2021

Prepared in accordance with part 9.3.1 of ISO 14064-1

Prepared By: Orbit Consulting

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EXECUTIVE SUMMARY

This is the annual greenhouse gas (GHG) emissions inventory report for the Kadifetek. Throughout this document “emissions” means “GHG emissions”. The inventory is a complete and accurate quantification of the amount of GHG emissions that can be directly attributed to the organization’s operations within the declared boundary and category for the specified reporting period.

The reporting processes and emissions classifications in this report are consistent with international protocols and standards. This report has been written in accordance with Part 9.3.1 of the requirements of International Standards Organisation (ISO) 14064-1 standard. Where applicable discretionary information has been disclosed consistent with section 9.3.2 of the Standard. The inventory has also been prepared in accordance with the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (the GHG Protocol).

has been selected as a historic base year for GHG emissions to be compared over time.

The total of Kadifetek's GHG emissions for 2021 is 9,285.538 tons of CO₂-e. A breakdown by category of the reporting year emissions and comparison to the base year can be seen in the below table.

| Emissions (tons CO ₂ -e) | Category 1 | Category 2 | Category 3 | Category 4 | Category 5 | Category 6 | Total |
|-------------------------------------|-----------------|------------------|------------|------------|------------|------------|------------------|
| 2021 Emissions | 9,285.538 tons | 8,783.496 tons | 0 tons | 0 tons | 0 tons | 0 tons | 9,285.538 tons |
| Emissions | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons |
| Difference | +9,285.538 tons | + 8,783.496 tons | 0 tons | 0 tons | 0 tons | 0 tons | +18,069.034 tons |

INTRODUCTION

Climate change has been identified as one of the greatest challenges facing nations, governments, businesses and citizens today and over future decades. Climate change has implications for both human and natural systems and could lead to significant changes in resource use, production and economic activity. In response, international, regional, national and local initiatives are being developed and implemented to limit greenhouse gas (GHG) concentrations in Earth’s atmosphere. Such GHG initiatives rely on the quantification, monitoring, reporting and verification of GHG emissions and/or removals, which can be done within the framework of ISO 14064.

ISO 14064-1 specifies principal requirements at the organizational level for quantification and reporting of greenhouse gas (GHG) emissions and removals. It includes requirements for the design, development, management, reporting and verification of an organization's GHG inventory and it is a tool for greenhouse gas (GHG) limitation and reduction.

ABOUT Kets

Resembling a technology base with its 65 thousand square meter fully integrated production facility in Istanbul and its second production facility of 100,000 square meters in Sakarya, Kadifetek's is the world's 3rd largest upholstery fabric manufacturer and Turkey's leading exporter in its sector.

With the Kadifetek's brand, it has high quality standards, the highest level of compliance procedures for environment and human health, and AS 9100, OEKO-TEX, ISO 9001 and ISO 27001 certificates, which it has successfully obtained as a result of supporting studies. With over 1000 employees, a large design team of 20, and an annual production capacity of 24 million meters, Kadifetek's, which exports 85% of its products to more than 100 countries, has high production standards.

Kadifetek's is the only company in the textile sector that has the R&D and DESIGN Center certificate approved by the Ministry of Science, Industry and Technology.

Kets Environmental Policy

- To comply with all national and international laws and customer requirements related to the environment.
- To ensure that a clean and healthy environment which can be sensitive to climate change is conveyed to future generations.
- For a sustainable environment, To minimize waste at its source, to collect it separately at its source, to ensure its reuse and recycling, and to ensure that non-recyclable wastes are disposed of through licensed companies.
- To provide trainings to increase environmental awareness and awareness of our employees.
- To ensure efficient use of energy and natural resources.
- To ensure the continuity of environmental activities.
- To monitor our environmental performance, to develop the Environmental Management System for its continuous improvement and to increase its effectiveness.
- To reduce negative environmental impacts in all processes from design to the end of the life cycle.
- To ensure the protection of natural resources by reducing the use of raw materials by using appropriate technologies which may cause the least harm to the environment in production.

Kets Sustainability Policy

- To create a work environment which respects human rights, where social justice and employee rights are constantly developed, and thus to increase the consciousness and awareness of our employees.
- To support a fair rewarding approach which includes a collective work culture compatible with ethical values and strategic goals and considers the employee's contribution to success.
- To organize trainings to internalize the issue of sustainability and increase employee awareness about its management.
- To share information about the health, safety and environmental impacts of our products and services transparently with our customers.
- To protect the confidentiality, integrity and accessibility of information and personal data and to protect the information security and personal data of our employees.
- To take care that our products and services are environmentally friendly, safe and of high quality when developing.

- Addressing the impacts of our products and services throughout their lifecycle.
- To place innovation and corporate entrepreneurship at the center of our corporate culture and to ensure the dissemination of its practices with the participation of our employees.
- To ensure the continuity of customer satisfaction.
- To develop its suppliers towards sustainability practices.
- To improve continuously all processes by managing risks effectively.
- To increase company performance and production efficiency by measuring performance and production efficiency.
- To provide an open communication environment by encouraging active participation of the employees.
- To comply with national and international laws, standards, and customer requirements.
- To create project groups to get more contribution of our employees, to contribute to their personal development, to increase the awareness of teamwork. Thus, to allow our employees to contribute to the management with their ideas.

1. ABOUT THIS REPORT

1.1 OBJECTIVE

To gain competitive advantage in the market, organizations should determine their impacts on climate change and manage greenhouse gas risks by identifying national and international climate change policies. Organizations that do not calculate greenhouse gas emissions, determine their risks and do not manage them may be subject to legal sanctions in the future with expected changes in legislation. This may end up having significant impacts on both corporate and financial performance.

This report has been prepared for Kadifetek and carries the below objectives:

- Calculation of the impact of activities on climate change
- Preparing for current and future legal regulations
- Determination of risky and problematic issues in carbon management
- Reporting GHGs in accordance with ISO 14064-1
- Contribution to the development of the Company Carbon Management Plan
- Awareness of employees on climate change, energy efficiency and sustainability issues

This study is expected to generate the following benefits to Kadifetek

Internal benefits:

- Transparency of the organization's resource consumption, emissions and energy consumption
- Determination of emission reduction potentials
- Increasing in-house awareness
- Strengthening the sustainability vision of Kadifetek

Extracurricular benefits:

- Strengthening the sustainability vision of the company and forefront the environmental identity
- Being a pioneer in its sector

1.2 CATEGORY

The term of "Category" is used in the ISO 14064-1: 2018 to determine the limits between different types of direct and indirect emissions: Category 1 refers to direct GHG emissions of the reporting company; Category 2 is the reporting company's emissions from the generation of acquired and consumed electricity, steam, heat, or cooling; Category 3 refers to the indirect transportation emissions of the reporting company; Category 4 is the emissions associated with goods and services purchased by the reporting company; Category 5 refers to the emissions associated with the use of products from the reporting company result from products sold by the company during life stages occurring after the company's production process; Category 6 is the indirect emissions of the reporting company that cannot be reported in any other category.

This report includes Category 1 (Direct), Category 2 (Indirect – Imported Energy) Greenhouse Gas emissions from Istanbul / Turkey activities between January 2021 and December 2021.

This report has been prepared in accordance with the principles set forth by the International Standards Organization (ISO) for the calculation and reporting of greenhouse gas emissions (Standard 14064-1: 2018).

1.3 REPORTING ACCORDING TO ISO 14064-1

ISO 14064-1 provides detailed information on the principles and requirements for the design, development, management and reporting of greenhouse gas inventories at the enterprise or company level. This standard includes requirements for the determination of greenhouse gas emission limits to improve greenhouse gas management, the calculation of greenhouse gas emissions for an organization, the identification of mitigation measures and the identification of proposals for company specific activities. This standard also includes requirements for inventory analysis, quality management, reporting, internal audit and organizational responsibilities and guidance information for verification activities.

The ISO 14064 Standard has introduced a systematic approach to the management of greenhouse gases. The ISO 14064 Standards Series consists of three parts and each section contains a separate scope.

ISO 14064-1; specifies principles and requirements at the organization level for quantification and reporting of GHG emissions and removals. It includes requirements for the design, development, management, reporting and verification of an organization's GHG inventory.

ISO 14064-2; specifies principles and requirements and provides guidance at the project level for quantification, monitoring and reporting of activities intended to cause greenhouse gas (GHG) emission reductions or removal enhancements. It includes requirements for planning a GHG project, identifying and selecting GHG sources, sinks and reservoirs relevant to the project and baseline scenario, monitoring, quantifying, documenting and reporting GHG project performance and managing data quality.

ISO 14064-3; specifies requirements for selecting GHG validators/verifiers, establishing the level of assurance, objectives, criteria and scope, determining the validation/verification approach, assessing GHG data, information, information systems and controls, evaluating GHG assertions and preparing validation/verification statements.

The benefits provided by the ISO 14064-1 standard to the firm can be listed as the following:

- Assist organizations to verify greenhouse gas emissions using a standardized approach and principles,
- Provide companies with information to plan and reduce the management of greenhouse gas emissions strategically,
- Ease the process of developing and implementing greenhouse gas reduction projects,
- Provide information that may be needed to participate in voluntary carbon markets,
- Demonstrate consistency, transparency and reliability in the determination, monitoring, reporting and mitigation of greenhouse gas emissions,
- Help establish trust-based relationships with stakeholders.

The greenhouse gas calculation and reporting principles of the ISO 14064-1 Standard is fundamental to ensure that GHG-related information is a true and fair account. The principles of ISO 14064 are the following:

- 1. Relevance:** Select the GHG sources, GHG sinks, GHG reservoirs, data and methodologies appropriate to the needs of the intended user.
- 2. Completeness:** Include all relevant GHG emissions and removals.
- 3. Consistency:** Enable meaningful comparisons in GHG-related information.
- 4. Accuracy:** Reduce bias and uncertainties as far as is practical.
- 5. Transparency:** Disclose sufficient and appropriate GHG-related information to allow intended users to make decisions with reasonable confidence.

1.4 BASE YEAR

The base year for Kadifeteks is set to. If necessary, Kadifeteks will update its reference calculations and report in accordance with paragraph 6.4.2 of the ISO Standard. This requirement arises when there are changes in reporting boundaries, changes in accounting techniques or emission factors, when there are greenhouse gases or deposits that are added to/or removed from organizational boundaries.

1.5 RESPONSIBLES

In preparing this report, the following individuals have been involved in every step of the process and were responsible for coordinating the reporting of corporate carbon footprint calculations, in line with ISO 14064-1 standard, resulting from the operational activities of Kadifeteks. With the guidance of the responsables, the data provided by Kadifeteks has been used in the calculations and are based on fully documented information.

| Name of Responsible | Business Unit | Phone | e-mail |
|---------------------|------------------|-------------------|----------------------------------|
| Büşra Suiçmez | Orbit Consulting | +90 537 651 70 34 | busra@THEORBITCONSULTING.COM |
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| Gökhan Gültekin | Kets | - | gokhan.gultekin@kadifeteks.com |

2. METHODOLOGY

2.1 GHG INVENTORY BOUNDARIES

2.1.1 ORGANIZATIONAL BOUNDARIES

A Equity Share has been adopted when Kadifetek's greenhouse gas emissions are calculated.

EQUITY SHARE APPROACH

Under the equity share approach, a company accounts for GHG emissions from operations according to its share of equity in the operation. The equity share reflects economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation.

The following legal entities and/or facilities included in this report are summarized in the below table:

| Name of Legal Entity or Facility | % Equity Share | Financial Control | Operational Control |
|----------------------------------|----------------|-------------------|---------------------|
| Kadifetek | 100% | 100% | 100% |

2.1.2 REPORTING BOUNDARIES

Kadifetek has established and documented its reporting boundaries and identified consistent emissions and removals associated with the Kadifetek's operations. GHG Inventory categories included in this report are the following: Category 1 - Direct

Detailed classification of the emissions that are caused by Kadifetek activities are as follows:

CATEGORY 1 - DIRECT GHG EMISSIONS AND REMOVALS:

Direct GHG emissions occur from sources that are owned or controlled by the company. Classification of direct emissions can be:

- Stationary Combustion (boiler, oven, turbine, heater, burning oven, etc.)
- Mobile Combustion (cars, etc.)
- Process Emissions (emissions from chemical production in owned or controlled process equipment)
- Fugitive Emissions (Fugitives from equipment connections, cooling kettles, air conditioning gases, fire tubes)

For Kadifetek's direct emission sources and activities are identified as the following:

| Emission Source / Activity | Detail | Data Source |
|---|-----------------|---|
| Category 1 - Direct / Direct Emissions / Fire Extinguishers | CO ₂ | Bills indicating purchased Fire Extinguishers amounts |
| Category 1 - Direct / Direct Emissions / Space Cooling / Chillers | R-410A | Bills indicating purchased Chillers Gas amounts |
| Category 1 - Direct / Direct Emissions / Space Cooling / Chillers | R-407C | Bills indicating purchased Chillers Gas amounts |
| Category 1 - Direct / Direct Emissions / Process Emissions | HCFC-22 | Emission flow diagram forming HCFC –22 |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles | Gasoline | Bills indicating purchased gasoline amounts |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles | Diesel | Bills indicating purchased diesel amounts |
| Category 1 - Direct / Mobile Combustion / Onsite Machinery | Diesel | Bills indicating purchased diesel amounts |
| Category 1 - Direct / Stationary Combustion / Energy Generation/Cogen/Trigen / Electricity Generation | Natural Gas | Counters |
| Category 1 - Direct / Stationary Combustion / Space Heating | Natural Gas | Natural gas utility bills |

CATEGORY 2 - INDIRECT GHG EMISSIONS FROM IMPORTED ENERGY:

It includes GHG emissions from the generation of purchased electricity, heat or steam consumed by the company.

Kadifetek's indirect greenhouse gas emissions activities are identified as the following:

| Emission Source / Activity | Detail | Data Source |
|---|---------------------------|-------------------|
| Category 2 - Indirect - Procured Energy / Electricity Consumption | Electricity from the Grid | Electricity bills |

2.2 EMISSION FACTORS AND OTHER VALUES USED FOR CALCULATION

CALORIFIC VALUE: The energy contained in a fuel determined by measuring the heat produced by the complete combustion of a specified quantity of it. This is usually expressed in joules per kilogram. See Appendix 1 for all calorific values used in calculations in this study.

GLOBAL WARMING POTENTIAL (GWP): The emission factors are provided as carbon dioxide (CO₂) equivalents (expressed as CO₂-e). Emissions of greenhouse gases outside of CO₂ are calculated separately and converted to CO₂ equivalents. When this conversion is made, the emission quantities of each greenhouse gas are multiplied by the global warming potentials of that gas. See Appendix 2 for the GWP values used in calculations in this study.

OXIDATION FACTOR: Measure the percentage of carbon that is actually oxidized when combustion occurs. The oxidation factor is used to calculate the amount of the fuel that is contributing to carbon dioxide emissions. The Oxidation Factor is taken as one (1) in all calculations in this report.

EMISSION FACTOR: A representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant.

2.3 TIER CONCEPT

The Intergovernmental Panel on Climate Change (IPCC) has classified the methodological approaches in three different Tiers, according to the quantity of information required, and the degree of analytical complexity.

Tier 1 employs the gain-loss method described in the IPCC Guidelines and the default emission factors and other parameters provided by the IPCC. **Tier 2** generally uses the same methodological approach as Tier 1 but applies emission factors and other parameters which are specific to the country. At **Tier 3**, higher-order methods include models and can utilize data to address company specific circumstances. Properly implemented, these methods can provide estimates of greater certainty than lower tiers.

In this report, the “highest tier available” approach is used to reduce uncertainty and error in calculations and to achieve a more accurate result. Thus, emission factors used in this study follow a hierarchical path from most specific known factor to the most generic. For any given activity, if the company has a specific emission factor that it can accurately calculate, that factor is prioritized in the calculations. If no emission factor is specified by the company, then the country specific factors reported by the country in which the activity takes place is used. If the activity in subject has no country specific factors, then IEA, IPCC or DEFRA published factors are used in that order, taking into the consideration of the time frame that the activity takes place. Below image shows a diagram of the emission factor hierarchy.



For all the emission factors used in calculation the greenhouse gas inventory of Kadifetek's with their data sources, please see Appendix 3.

2.4 QUANTIFICATION AND CALCULATION OF GHG EMISSIONS

The followed methodology used to quantify the GHG inventory is in accordance with the ISO 14064-1 guidelines and specifications. All five fundamental principles are addressed adequately: relevance, completeness, consistency, accuracy, and transparency. In summary the quantification methodology can be explained as the following:

1. Identification of GHG sources and sinks,
2. Selection of quantification methodology,
3. Selection and collection of GHG activity data,
4. Selection or development of GHG emission or removal factors,
5. Calculation of GHG emissions and removals.

Identification of GHG sources and sinks

Kadifeteks's GHG sources and sinks were identified based on all activities within the organizational/reporting boundaries and the determined reporting categories of this study.

Selection of quantification methodology

Due to the fact that Kadifeteks does not measure emissions directly, calculation methodology has been used for quantification of emissions. Calculations were done based on measured GHG activity data multiplied by GHG emission or removal factors. (See below for calculation formula)

Selection and collection of GHG activity data

Once activities relevant to the Company's GHG boundaries were selected, activity data were collected at site level by GHG Site Responsible(s) and consolidated using QuickCarbon software which allows activity data to be entered as soon as its available. Correctness and consistency of the results are kept at the highest possible level by confirmation of collected data via solid evidence such as utility bills and meter readings. Activity data along with evidence documents are all recorded in controlled web-based environment of QuickCarbon software. The entered data are then checked by the main reporting responsible for completeness, consistency and accuracy before it was turned into this report.

Selection or development of GHG emission or removal factors

Selection of GHG emission or removal factors were done as explained in the previous (Section 2.2).

Calculation of GHG emissions and removals

All data was calculated using the web-based QuickCarbon Software. This software uses a calculation methodology for quantifying the GHG emissions inventory using emissions source activity data multiplied by GHG emissions factors. The formula for Kadifeteks 's greenhouse gas emission calculations is as follows:

Greenhouse Gas Emission Amount (tons) = GHG Activity Data x GHG Emission Factor (tons of GHG / activity data) x Oxidation Factor x Global Warming Potential

3. GHG EMISSION INVENTORY

3.1 REPORTING YEAR RESULTS

Greenhouse gas emissions resulting from Kadifeteks 's activities within its reporting and organizational boundaries for 2021 is a total of 9,285.538 tons CO₂ .e. The distribution of emissions by category and gas is given below.

| Emissions (t CO ₂ -e) | CO ₂ | CH ₄ | N ₂ O | HFCs | PFCs | SF ₆ | NF ₃ | TOTAL |
|--|------------------------|-------------------|--------------------|--------------------|---------------|-----------------|-----------------|------------------------|
| Category 1 (Direct) | 9,207.121 tons | 4.816 tons | 14.413 tons | 59.189 tons | 0 tons | 0 tons | 0 tons | 9,285.538 tons |
| Category 2 (Indirect – Imported Energy) | 8,783.496 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 8,783.496 tons |
| Category 3 (Indirect – Transportation) | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons |
| Category 4 (Indirect – Products Used by Company) | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons |
| Category 5 (Indirect – Use of Products from Company) | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons |
| Category 6 (Indirect – Other Sources) | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons |
| TOTAL | 17,990.617 tons | 4.816 tons | 14.413 tons | 59.189 tons | 0 tons | 0 tons | 0 tons | 18,069.034 tons |

A detailed breakdown of emission subcategories under each category is given in Appendix 5.

3.2 HISTORICAL COMPARISON

A historical comparison of the reporting year emissions with previous years can be found in the below table:

| Emissions (t CO ₂ -e) | | 2021 | 2021 | % Change Base Year | % Change Last Year |
|--|---------------|------------------------|------------------------|--------------------|--------------------|
| Category 1 (Direct) | 0 tons | 9,285.538 tons | 9,285.538 tons | +0% | +0% |
| Category 2 (Indirect – Imported Energy) | 0 tons | 8,783.496 tons | 8,783.496 tons | 0% | 0% |
| Category 3 (Indirect – Transportation) | 0 tons | 0 tons | 0 tons | 0% | 0% |
| Category 4 (Indirect – Products Used by Company) | 0 tons | 0 tons | 0 tons | 0% | 0% |
| Category 5 (Indirect – Use of Products from Company) | 0 tons | 0 tons | 0 tons | 0% | 0% |
| Category 6 (Indirect – Other Sources) | 0 tons | 0 tons | 0 tons | 0% | 0% |
| TOTAL | 0 tons | 18,069.034 tons | 18,069.034 tons | +0% | +0% |

4. UNCERTAINTIES

Inventory Uncertainties

In this inventory, the activity data used in the calculations is the primary data provided by Kadifeteks from approved bills and/or measured data via company meters, software and other registered data. If the precision information (ie. error margin) of a measurement equipment or calculation method is known, it is defined as a “Register” in QuickCarbon software with its precision information. This information is then used for calculating the overall uncertainty of the emissions inventory in accordance with the GHG Protocol guidance on uncertainty assessment. A list of predetermined Registers used in the inventory calculations of this report with their precision information can be found in Appendix 6. For all those other registers, of which a precision information was not available, a default value of 2.000% was used.

Emission Factor Uncertainties

The uncertainties of the emission factors from the IPCC are taken as 7%. The uncertainty of the EIA data used for the Electricity Emission Factor is 5%.

Uncertainty Calculation and Evaluation

As a result of calculations made with Kadifeteks’s data, general uncertainty has emerged as $\pm 6.632\%$. According to the GHG Protocol this uncertainty can be ranked **Good**.

Calculated uncertainty levels for specific activities are given in the table below:

| Emissions Category | Activity Data Uncertainty | Emission Factor Uncertainty | Calculated Uncertainty | Uncertainty Ranking |
|---|---------------------------|-----------------------------|------------------------|---------------------|
| Category 1 - Direct / Stationary Combustion / Space Heating / Natural Gas | 5.000% | 7.000% | $\pm 8.602\%$ | Good |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles / Gasoline | 5.000% | 7.000% | $\pm 8.602\%$ | Good |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles / Gasoline | 2.000% | 7.000% | $\pm 7.280\%$ | Good |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles / Diesel | 5.000% | 7.000% | $\pm 8.602\%$ | Good |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles / Diesel | 2.000% | 7.000% | $\pm 7.280\%$ | Good |
| Category 1 - Direct / Direct Emissions / Space Cooling / Chillers / R-407C | 5.000% | 0.000% | $\pm 5.000\%$ | High |
| Category 1 - Direct / Direct Emissions / Space Cooling / Chillers / R-410A | 5.000% | 0.000% | $\pm 5.000\%$ | High |

| | | | | |
|---|--------|--------|----------|------|
| Category 1 - Direct / Direct Emissions / Process Emissions / HCFC-22 | 5.000% | 0.000% | ± 5.000% | High |
| Category 1 - Direct / Direct Emissions / Fire Extinguishers / CO2 | 5.000% | 0.000% | ± 5.000% | High |
| Category 1 - Direct / Mobile Combustion / Onsite Machinery / Diesel | 5.000% | 7.000% | ± 8.602% | Good |
| Category 1 - Direct / Stationary Combustion / Energy Generation/Cogen/Trigen / Electricity Generation / Natural Gas | 5.000% | 7.000% | ± 8.602% | Good |

5. APPENDICES

APPENDIX 1 – CALORIFIC VALUES USED IN CALCULATIONS

| Fuels | Calorific Value | Reference |
|---|---------------------|-----------|
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles / Gasoline | 10,400 kcal / kg | Turkey |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles / Diesel | 10,200 kcal / kg | Turkey |
| Category 1 - Direct / Mobile Combustion / Onsite Machinery / Diesel | 10,200 kcal / kg | Turkey |
| Category 1 - Direct / Stationary Combustion / Energy Generation/Cogen/Trigen / Electricity Generation / Natural Gas | 12,313.43 kcal / kg | Turkey |
| Category 1 - Direct / Stationary Combustion / Space Heating / Natural Gas | 12,313.43 kcal / kg | Turkey |

APPENDIX 2 – GLOBAL WARMING POTENTIAL VALUES

| Gas Type | GWP | Reference |
|----------|---------------|-----------|
| CO2 | 1 kg / kg | IPCC 2014 |
| CH4 | 28 kg / kg | IPCC 2014 |
| N2O | 265 kg / kg | IPCC 2014 |
| HFC-134a | 1,300 kg / kg | IPCC 2014 |
| HFC-125 | 3,170 kg / kg | IPCC 2014 |
| HFC-32 | 677 kg / kg | IPCC 2014 |

APPENDIX 3 – EMISSION FACTORS

Emission Factors for Category 1 (Direct) Emissions

| Emission Source | EF CO ₂ | | EF CH ₄ | | EF N ₂ O | | Reference |
|---|--------------------|---------------|--------------------|-------------|---------------------|-------------|-----------|
| | Base Year | Report Year | Base Year | Report Year | Base Year | Report Year | |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles / Gasoline | 69,300kg / TJ | 69,300kg / TJ | 3.8kg / TJ | 3.8kg / TJ | 5.7kg / TJ | 5.7kg / TJ | IPCC 2006 |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles / Diesel | 74,100kg / TJ | 74,100kg / TJ | 3.9kg / TJ | 3.9kg / TJ | 3.9kg / TJ | 3.9kg / TJ | IPCC 2006 |
| Category 1 - Direct / Mobile Combustion / Onsite Machinery / Diesel | 74,100kg / TJ | 74,100kg / TJ | 4.15kg / TJ | 4.15kg / TJ | 28.6kg / TJ | 28.6kg / TJ | IPCC 2006 |
| Category 1 - Direct / Stationary Combustion / Energy Generation/Cogen/Trigen / Electricity Generation / Natural Gas | 56,100kg / TJ | 56,100kg / TJ | 1kg / TJ | 1kg / TJ | 0.1kg / TJ | 0.1kg / TJ | IPCC 2006 |
| Category 1 - Direct / Stationary Combustion / Space Heating / Natural Gas | 56,100kg / TJ | 56,100kg / TJ | 1kg / TJ | 1kg / TJ | 0.1kg / TJ | 0.1kg / TJ | IPCC 2006 |

Emission Factors for Category 2 (Indirect – Imported Energy) Emissions

| Emission Source | EF CO ₂ | | EF CH ₄ | | EF N ₂ O | | Kaynak |
|---|--------------------|----------------|--------------------|-------------|---------------------|-------------|---------------------------|
| | Base Year | Report Year | Base Year | Report Year | Base Year | Report Year | |
| Category 2 - Indirect - Supply Energy / Electricity Consumption / Electricity Purchased from the Grid | 0,38kg / kW-hr | 0,38kg / kW-hr | 0kg / kW-hr | 0kg / kW-hr | 0kg / kW-hr | 0kg / kW-hr | Climate Transparency 2021 |

APPENDIX 4 – EMISSIONS INVENTORY by BUSINESS UNIT for 2021

Category 1 (Direct) Emissions of Kadifetek by Business Unit

| Emissions (t CO ₂ -e) | CO ₂ | CH ₄ | N ₂ O | HFCs | PFCs | SF ₆ | NF ₃ | TOTAL |
|----------------------------------|-----------------------|-------------------|--------------------|--------------------|---------------|-----------------|-----------------|-----------------------|
| Merkez | 3,519.791 tons | 1.923 tons | 10.951 tons | 59.189 tons | 0 tons | 0 tons | 0 tons | 3,591.853 tons |
| Şube - Kuzuluk Sakarya | 5,639.103 tons | 2.862 tons | 3.339 tons | 0 tons | 0 tons | 0 tons | 0 tons | 5,645.304 tons |
| Şube - Başakşehir | 48.226 tons | 0.031 tons | 0.123 tons | 0 tons | 0 tons | 0 tons | 0 tons | 48.381 tons |
| TOTAL | 9,207.121 tons | 4.816 tons | 14.413 tons | 59.189 tons | 0 tons | 0 tons | 0 tons | 9,285.538 tons |

Category 2 (Indirect – Imported Energy) Emissions of Kadifeteks by Business Unit

| Emissions (t CO ₂ -e) | CO ₂ | CH ₄ | N ₂ O | HFCs | PFCs | SF ₆ | NF ₃ | TOTAL |
|----------------------------------|-----------------------|-----------------|------------------|---------------|---------------|-----------------|-----------------|-----------------------|
| Merkez | 7,048.141 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 7,048,141 tons |
| Şube - Kuzuluk Sakarya | 1,487.799 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 1,487.799 tons |
| Şube - Başakşehir | 247.557 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 247.557 tons |
| TOTAL | 8,783.496 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 8,783.496 tons |

APPENDIX 5 – EMISSIONS INVENTORY by ACTIVITY for 2021

The following breakdown of emissions only includes emissions resulting from activity data input to QuickCarbon software. Activity breakdowns of linked companies whose emissions information were directly entered are not available in the below tables. They can be separately found in Appendix 4 – Emissions Inventory by Business Unit.

Category 1 (Direct) Emissions of Kadifeteks by Activity

| Emissions (t CO ₂ -e) | CO ₂ | CH ₄ | N ₂ O | HFCs | PFCs | SF ₆ | NF ₃ | TOTAL |
|---|-----------------------|-------------------|--------------------|--------------------|---------------|-----------------|-----------------|-----------------------|
| Category 1 - Direct / Direct Emissions / Fire Extinguishers / CO ₂ | 0.03 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0.03 tons |
| Category 1 - Direct / Direct Emissions / Space Cooling / Chillers / R-410A | 0 tons | 0 tons | 0 tons | 21.832 tons | 0 tons | 0 tons | 0 tons | 21.832 tons |
| Category 1 - Direct / Direct Emissions / Space Cooling / Chillers / R-407C | 0 tons | 0 tons | 0 tons | 37.357 tons | 0 tons | 0 tons | 0 tons | 37.357 tons |
| Category 1 - Direct / Direct Emissions / Process Emissions / HCFC-22 | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons | 0 tons |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles / Gasoline | 23.336 tons | 0.036 tons | 0.509 tons | 0 tons | 0 tons | 0 tons | 0 tons | 23.881 tons |
| Category 1 - Direct / Mobile Combustion / Company Owned Vehicles / Diesel | 115.465 tons | 0.17 tons | 1.61 tons | 0 tons | 0 tons | 0 tons | 0 tons | 117.246 tons |
| Category 1 - Direct / Mobile Combustion / Onsite Machinery / Diesel | 78.677 tons | 0.123 tons | 8.047 tons | 0 tons | 0 tons | 0 tons | 0 tons | 86.847 tons |
| Category 1 - Direct / Stationary Combustion / Energy Generation/Cogen/Trigen / Electricity Generation / Natural Gas | 2,180.247 tons | 1.088 tons | 1.03 tons | 0 tons | 0 tons | 0 tons | 0 tons | 2,182.365 tons |
| Category 1 - Direct / Stationary Combustion / Space Heating / Natural Gas | 6,809.365 tons | 3.399 tons | 3.217 tons | 0 tons | 0 tons | 0 tons | 0 tons | 6,815.98 tons |
| TOTAL | 9,207.121 tons | 4.816 tons | 14.413 tons | 59.189 tons | 0 tons | 0 tons | 0 tons | 9,285.538 tons |

Category 2 (Indirect – Imported Energy) Emissions of Kadifeteks by Activity

| Emissions (t CO₂-e) | CO₂ | CH₄ | N₂O | HFCs | PFCs | SF₆ | NF₃ | TOTAL |
|--|-----------------------|-----------------------|-----------------------|--------------|--------------|-----------------------|-----------------------|-----------------------|
| Category 2 - Indirect - Supply Energy / Electricity Consumption / Electricity Purchased from the Grid | 8,783.496 tons | 0 ton | 0 ton | 0 ton | 0 ton | 0 ton | 0 ton | 8,783.496 tons |
| TOTAL | 8,783.496 tons | 0 ton | 0 ton | 0 ton | 0 ton | 0 ton | 0 ton | 8,783.496 tons |

6. REFERENCES:

Reporting Standards:

- ISO 14064-1 : 2018 / <https://www.iso.org/standard/66453.html>
- TS EN ISO 14064-1 : 2019 / <https://intweb.tse.org.tr/Standard/Standard/Standard.aspx?081118051115108051104119110104055047105102120088111043113104073083084082085104098111116108088069>
- Greenhouse Gas (GHG) Protocol Corporate Standard / <https://ghgprotocol.org/corporate-standard>

Emission Factors:

- IPCC Guidelines for National Greenhouse Gas Inventories : 2006 / <https://www.ipcc.ch/report/2006-ipcc-guidelines-for-national-greenhouse-gas-inventories/>
- DEFRA Greenhouse gas reporting: conversion factors: 2017-2018-2019-2020-2021 / <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>
- IEA Emission Factors : 2018 / <https://www.iea.org/data-and-statistics/data-product/emissions-factors>
- EPA Emission Factors : 2014-2015 / <https://www.epa.gov/air-emissions-factors-and-quantification>
- T.C. Enerji ve Tabii Kaynaklar Bakanlığı - Enerji Kaynaklarının ve Enerjinin Kullanımında Verimliliğin Artırılmasına Dair Yönetmelik : 2011 / <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=15437&MevzuatTur=7&MevzuatTertip=5>
- Climate Transparency Electricity Emission Factors: 2019-2020-2021 / <https://www.climate-transparency.org/g20-climate-performance>
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QuickCarbon, www.quickcarbon.com