Kalenborn
Wear Protection Solutions

Experts in Industrial Wear Protection

# Company Report

Sustainability Key Figures According to the VSME Standard 2023–2025





Management
Markus Buscher, Dr. Conrad Mauritz

"Kalenborn delivers reliable solutions for wear protection. For over 100 years, we've been providing anti-aging solutions for industry.

From the development and production of our materials through consulting and design to installation: We provide comprehensive soluctions from a single source."




Kalenborn is the leading international provider of wear protection solutions. Expertise and experience, as well as high-quality, durable products, sets our long-established company apart. We protect industrial plants from friction and impact wear - in steel and cement plants, in power generation and recycling facilities, in raw material extraction, and in environmental technology.

Our solutions keep production running. To do so, we draw on a high-quality range of mineral, ceramic, and metallic materials, as well as compounds and plastics. This diversity enables us to design lining systems for every requirement and manufacture to exact specifications. Maintaining close relationships with our customers is a key priority: Through close collaboration we develop and implement sustainable solutions - both in our own facilities and on-site at our customers' sites.

Sustainability and innovation have been at the heart of our operations for three generations. With our materials, we extend the service life of plants, thereby laying the foundation for stable, trusting, and long-term partnerships. Our success is measured by the smooth operation of our customers' facilities. This sustainability report compiles our key performance indicators on environmental, social, and corporate governance for the years 2023 through 2025 – prepared in accordance with the European VSME standard.

Sustainability is an integral part of our business model. We focus on three particularly important topics:

Climate Change and Resource Efficiency

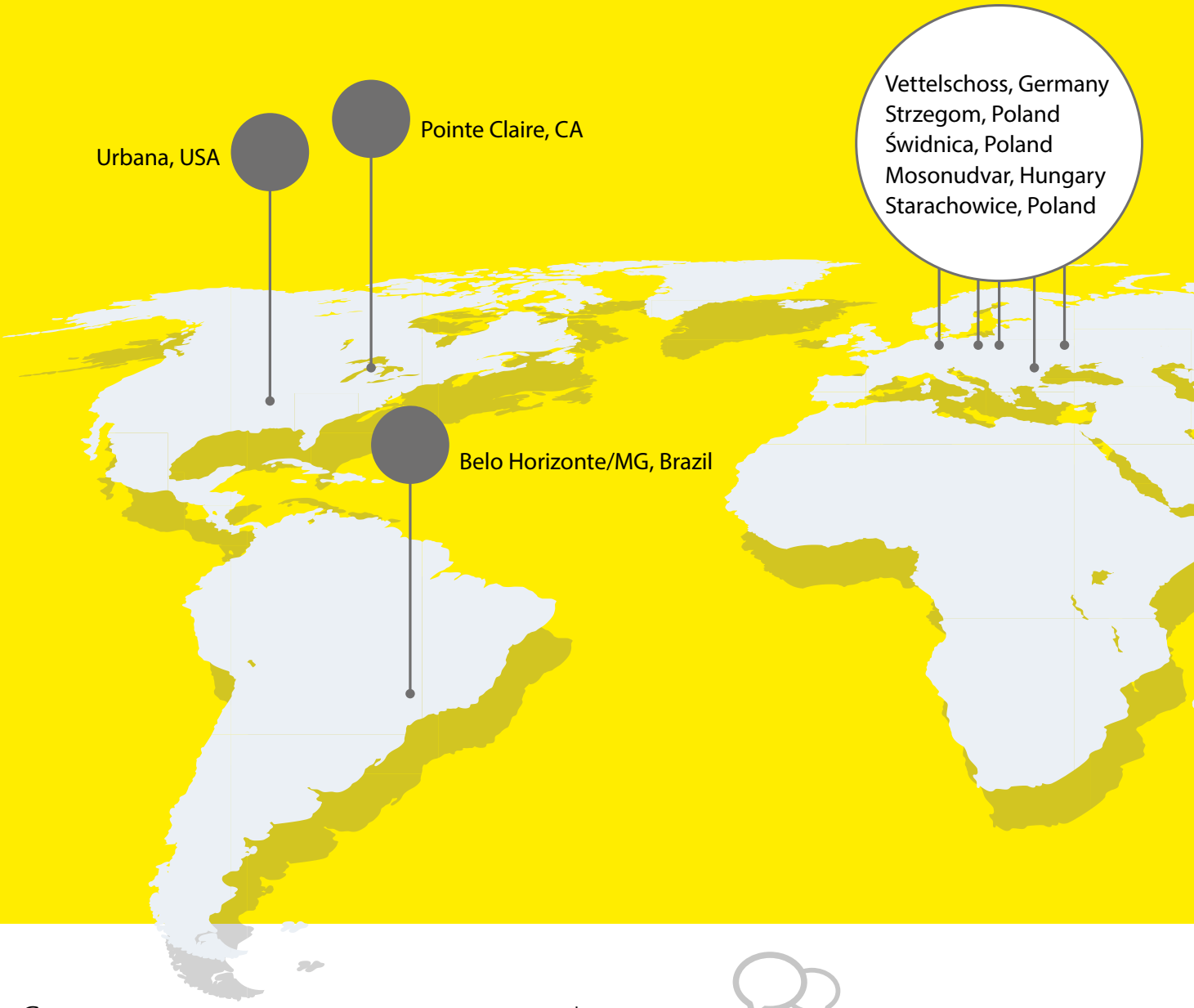
Safety, Health, and a Positive Work Environment

Ethical and Legally Compliant Conduct Throughout the Value Chain

Our sustainability strategy combines economic performance with environmental responsibility, social accountability, and clear governance structures. This is based on our Code of Conduct, internal guidelines, standardized reporting processes, training programs, and ongoing analyses of material impacts, risks, and opportunities.

The Executive Board
Dipl.-Ing. Markus Buscher, · Dr. Conrad Mauritz –
May 2026

# Kalenborn at a Glance




## Company

- Founded in 1921 – over 100 years of experience in industrial wear protection
- 10 operating companies, over 25 representative offices on 5 continents
- 500 employees worldwide
- Revenue: €50 million, consolidated
- NACE Classification: 23.99 – Manufacturing

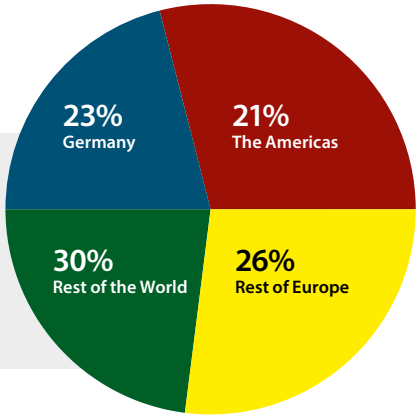
## Languages

Eleven languages are spoken within the Kalenborn Group:

- Brazilian · German · English · French · Italian · Filipino · Polish · Spanish · Ukrainian · Hungarian · Vietnamese

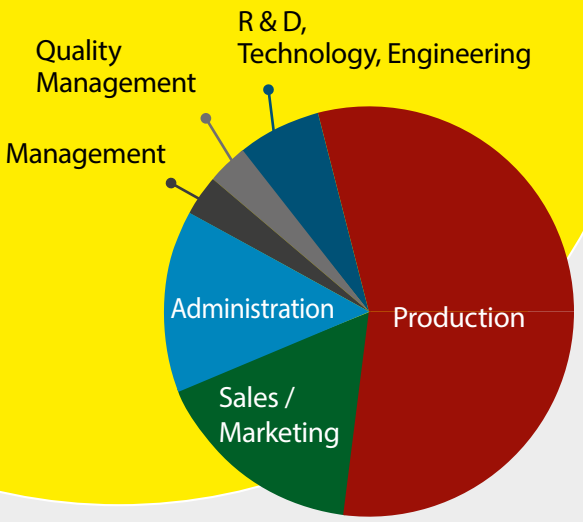
## Markets

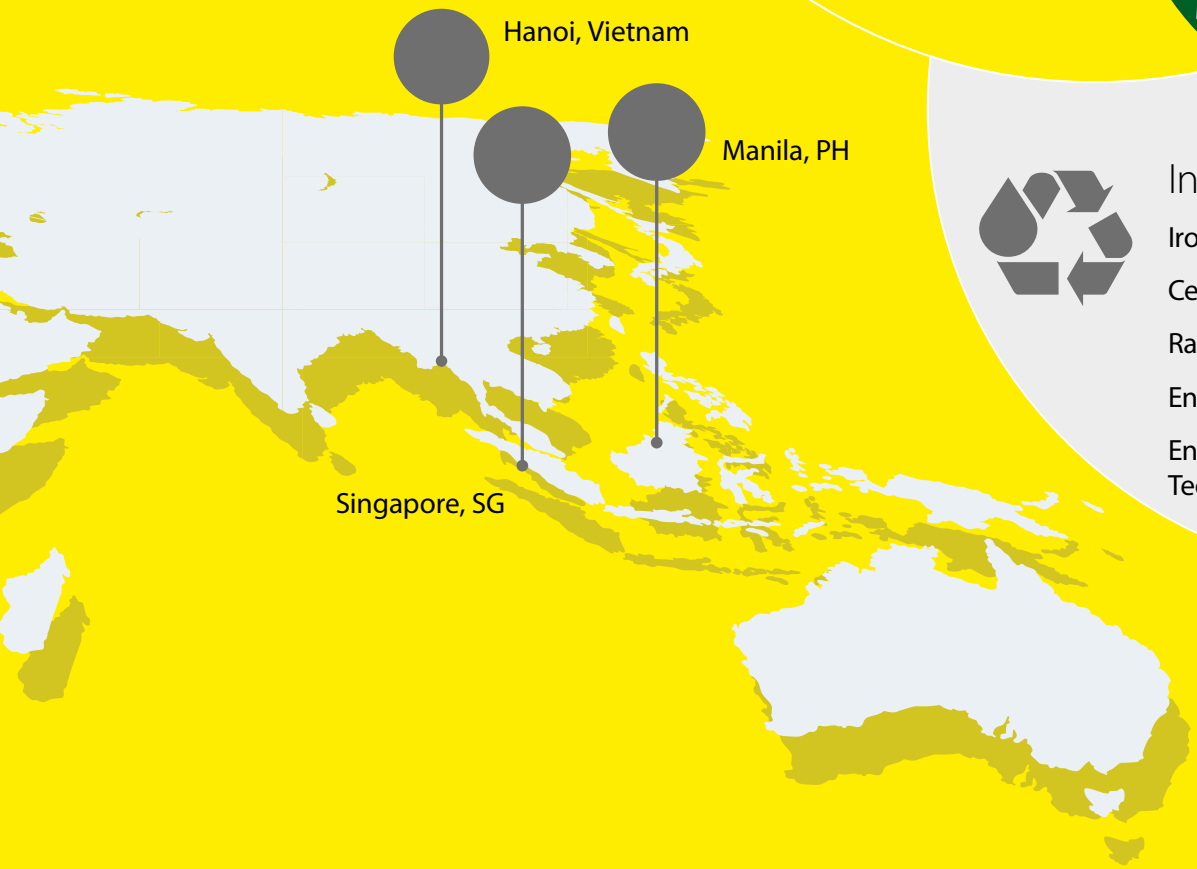
Revenue is evenly distributed across the Group's global sales regions, underscoring the Kalenborn Group's global market presence.



Key Facts, Achievements, Industries, and Markets of the Kalenborn Group at a Glance.

# 500 Employees Worldwide




## Industries

- Iron and Steel
- Cement
- Raw Materials Extractions
- Energy Production
- Environmental Technology

## Certifications & Awards

- ISO 9001 (Quality Management) and ISO 45001 (Occupational Health and Safety)
- EcoVadis Silver – ranked among the top 15% of companies evaluated worldwide
- Signatory to the UN Global Compact since 2022
- Certified welding company according to DIN 3834-2, with AD2000 HP0 and DGRL 97/23/EC manufacturer qualifications
- Installation contractor certified under SCC (Safety Certificate Contractors)
- R&D BSFZ Seal from the Federal Ministry of Research, Technology, and Space

## Services

**5,700,000 meters**
Lined Pipelines

**570,000 metric tons**
Basalt - production

**570**
Ceramic-lined surfaces

**5.000**
Active customers worldwide





# Wear Protection for the Future – backed by Extensive Expertise

What began in 1921 with molded parts made from molten basalt has evolved into a broad range of materials with exceptional properties.
Added to this is the expertise and experience we have gained in numerous industrial facilities around the world.

## 1921
Founding of "Schmelzbasalt AG" in Linz am Rhein - the beginning of industrial production of fused basalt.

## 1929–1935
A Change of Course: Following the stock market crash and the Great Depression, new shareholders joined forces under the leadership of Dr. Ing. Kurt Mauritz and drove forward the development of industrial wear protection.

## 1937–1944
Renamed "Schmelzbasaltwerk Kalenborn."

## 1945 / 1946
Production halted due to the war in Remagen; despite great hardships, production resumes in 1946.

## 1950–1959
The Path to Europe: Establishment of 15 sales offices; exports account for over 35% of revenue.

## 1960–1969
On the global market: Sales expansion into the U.S., India, and Australia; intensive materials research by the 2. generation.

## 1977
Expansion into the U.S. with the founding of Kalenborn Abresist Corporation in Indiana.






## 1990–2010

International expansion with subsidiaries in Canada, Brazil, Poland, Hungary, Singapore, and the Philippines;

with Dr. Conrad Mauritz, the 3. next generation takes the reins.

## 2014

Kalenborn consolidates its services worldwide under the umbrella brand “Kalenborn.”




## 2016

Expansion of in-house research laboratories and material testing in accordance with international standards.

## 2022

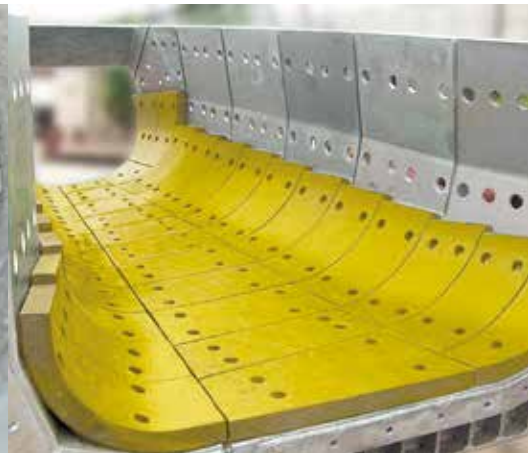
Solutions for the decarbonization in steel production.

# Effective Wear Protection from a Single Source

Quality and durability are our top priorities in the production of our materials.
As experts, we have in-depth knowledge of raw materials and manufacturing processes, ensuring the quality characteristics of our products at all times.







## Mineral-based – From Natural Basalt to Fused Basalt

In the early 1920s, the Kalenborn Fused Basalt Plant succeeded for the first time in producing a wear-resistant material from basalt - known worldwide under the brand name ABRESIST. In modern furnaces, the rock is melted at 1,250 °C, poured into molds, and then heat-treated using a special process until it develops a crystalline structure.

This makes ABRESIST particularly hard and durable; at the same time, the material has a surface that promotes smooth sliding.

## Ceramic – From Mineral to Ceramic

KALOCER is an aluminum oxide ceramic that is pressed into shape and sintered at high temperatures. For extreme wear and temperature conditions up to 1,000 °C.

KALCOR zirconia corundum is particularly resistant to thermal cycling. In the form of plates, mosaics, molded parts, and hollow cylinders, our ceramic materials are used in pipelines, cyclones, hoppers, and chutes, thereby ensuring the production of energy, raw materials, and other important goods.

## Metallic – From Scrap to Hard Chromium Alloys

For particularly harsh operating conditions, we have developed special hard cast alloys such as KALCAST: Chromium and carbon provide hardness and abrasion resistance, while manganese ensures impact resistance. In our own foundry, we produce cylinders, pipe elbows, and fittings with unit weights ranging from 30 to 3,000 kg.

The KALMETALL material consists of steel plates reinforced with chromium carbides and far exceeds the durability of ordinary steel.






## Compound – From Hard Materials to Compounds

Our hard material compounds combine excellent wear protection properties with ease of use. Wear-resistant hard materials such as bauxite or corundum are firmly embedded in our compound materials.

Available as KALCRET in trowelable, pourable, or sprayable forms, it can be precisely applied to a wide variety of components.

KALPOXY is an epoxy resin-bonded compound for seamless lining and repair of plant components - even in chemically demanding environments.

## Plastics – From Polymer to Engineering Plastic

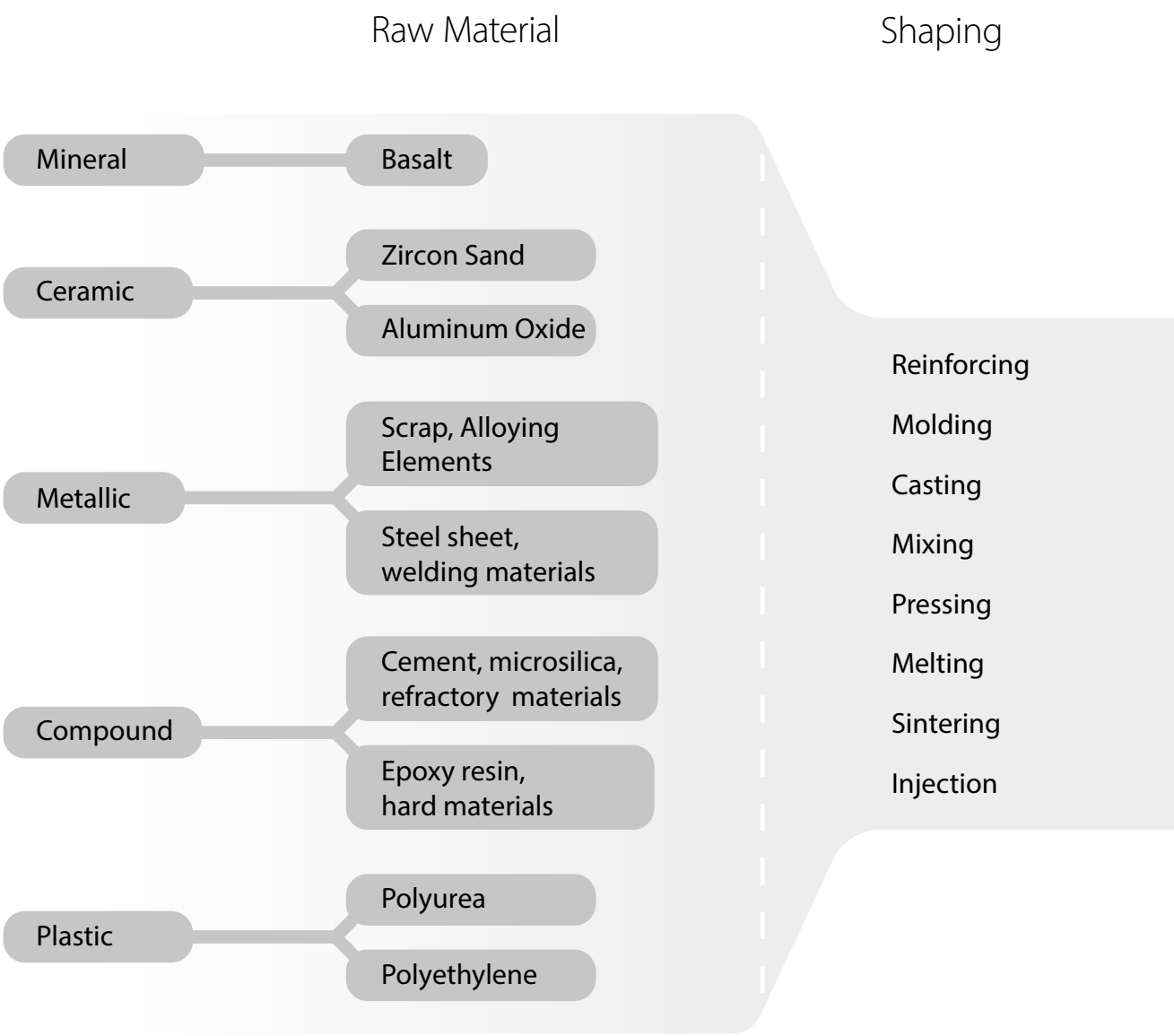
Sheets made of thermoplastic form the basis for KALEN, which provides corrosion-free, slip-promoting wear protection in bunkers, silos, chutes, or troughs - with low weight and operating temperatures up to 80 °C.

KALEA is a high-performance thermoset that is applied thinly and seamlessly using Kalenborn's spraying technology and withstands operating temperatures up to 120 °C.

"Kalenborn develops and manufactures the materials in-house. This is how we ensure the quality of our comprehensive materials portfolio."

# The Manufacturing Process for our Products

From the selection of raw materials through shaping and machining to the finished material and product, every component goes through clearly defined production steps:




A certified quality assurance system specifies in detail all process steps and control points in production.

Machining

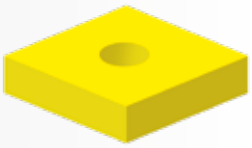
- Turning
- Milling
- Assembly
- Sawing
- Grinding
- Welding
- Rolling
- Cutting

Materials

- ABRESIST
- KALOCER
- KALCOR
- KALCAST
- KALMETALL
- KALCRET
- KALPOXY
- KALEA
- KALEN

Products

- Wear-Resistant Materials



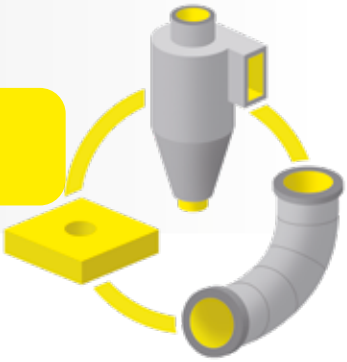
- Wear-Resistant Piping Systems



- Wear Protection for Industrial Plants



- Custom Solutions



In our in-house testing laboratories, our employees conduct microstructural analyses and wear tests in accordance with international standards - including long-term tests under various operating conditions and with various materials of flow provided by the customer.

# Products & Applications

Our materials are used in four different levels of complexity to provide protection against wear - ranging from individual materials to complete pipe systems and wear protection for industrial plants, all the way to custom-developed, client-specific solutions. As complexity increases, so does the proportion of consulting, engineering, material combinations, and installation services.



## 1. Wear-Resistant Materials

The individual wear-resistant materials form the first product tier: As purpose-built high-performance materials, they protect components subject to particularly high stress and remain effective over the long term thanks to the professional installation by our employees.



## 2. Wear-Resistant Pipe Systems

Pipes, pipe elbows, and pipe fittings are lined with these materials, making them wear-resistant. Hydraulic and pneumatic piping systems are often subjected to the harshest conditions - the transport of abrasive materials such as ash, sand, or sinter dust leads to extreme stress. The smooth surfaces of our materials promote good flow characteristics, lower pressure losses, and reduce energy costs. Often, lining only the areas subject to particularly high stress - such as pipe bends, branch fittings, or transition pieces - is sufficient to provide the necessary protection. An intelligent monitoring system provides early warning of the end of a material's service life, thereby preventing environmental impact and operational hazards.



## 3. Wear Protection for Industrial Equipment

Every wear problem has its own unique characteristics. Material throughput, particle size and shape, speed, and operating temperature determine the right material. In continuously operated plant components such as cyclones, frictional wear is the primary concern, while intermittently operated components such as mixers, silos, or chutes must additionally withstand erosion and impact during loading and unloading. To develop the optimal wear protection system, our experienced staff often combine different materials and tailor the fastening method to account for temperature, vibration, and accessibility within the plant.



## 4. Custom Solutions

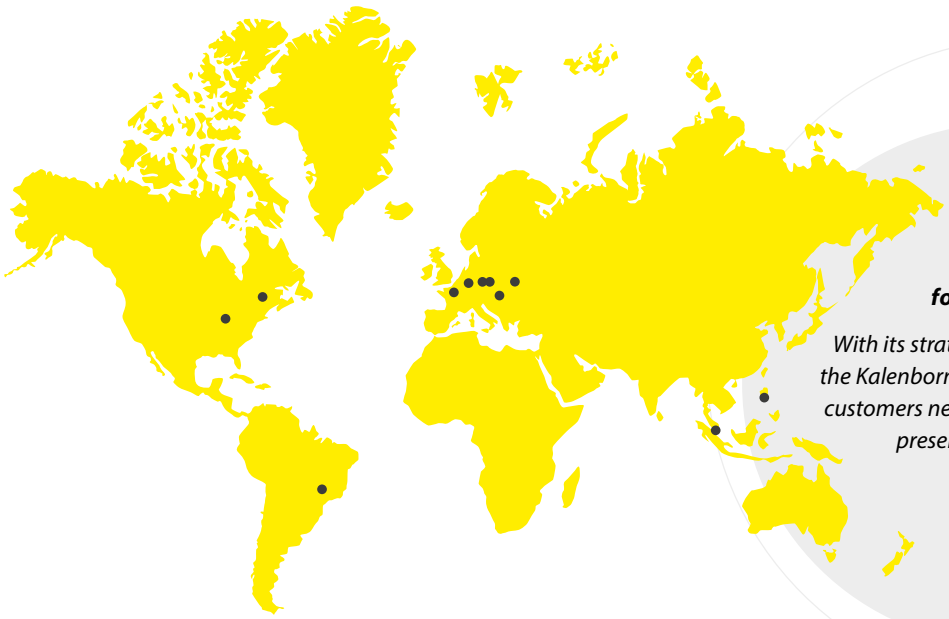
Our custom solutions are innovative wear protection applications for complex industrial plants. Their success stems from a situation analysis based on our century of experience and joint development with our customers. For example, our solutions are used in the chemical industry, where high temperatures and hard materials collide at high speeds.

Our expert knowledge is incorporated into new developments - such as in $CO_2$-free steel production or environmental technologies - featuring unique material combinations, specialized fastening systems, and on-site installations. This may also include insulation against heat loss or chemical attack, as well as requirements for explosion protection.

„The better the material and lining are tailored to a specific problem, the more durable and cost-effective the solution."

# On-Site Worldwide

With roots in the German basic materials industry, Kalenborn has evolved into a global company with international partnerships across five continents. Our broad portfolio of materials and services - including consulting, engineering, and installation - is available to our customers worldwide. Kalenborn has its strongest presence in Europe; heavy industry in the Americas and the growing markets in Asia round out our global footprint. More than 70% of our revenue is generated outside of Germany.



***We're here for you worldwide.***

*With its strategically located subsidiaries, the Kalenborn Group offers its international customers networked expertise and a local presence wherever they are.*




*You can find the list of subsidiaries with addresses on the website under Contact. Please scan the QR code:*

- **Kalenborn Abresist Corp. i**n Urbana, together with Kalenborn Canada in Quebec – Sales and manufacturing for North America
- **Kalenborn do Brasil** in Belo Horizonte – Sales and manufacturing for Brazil
- **Kalenborn Kalprotect GmbH & Co. KG** Vettelschoß, Germany – Operational hub for product development, manufacturing, and global sales
- **Kalenborn Odlewnia Świdnica Sp. z o.o.** Świdnica, Poland – Manufacturing of metallic materials, worldwide sales
- **Kalenborn Polska Sp. z o.o.** Starachowice / Strzegom, Poland – Production of mineral and metallic materials, sales in Poland
- **Kalenborn Refmon ZRT.,** Hungary Production and global distribution of ceramic materials
- **Kalenborn Weartech Philippines Inc.,** Manila Production and distribution in Asia
- **Kalenborn Vietnam,** Hanoi, Sales
- **Kalenborn Asia Pte. Ltd.,** Singapore, Sales

# We plan ahead in every Direction

Thanks to our materials expertise and decades of practical experience, Kalenborn's wear protection solutions enjoy an excellent reputation worldwide. Our approach is based on three core values.

## On-Site Service

Across national borders, we ensure direct, personal contact with our customers through numerous branches and representative offices. Our wide range of products ensures maximum adaptability to individual customer requirements.

## Expertise

Our range of services covers the entire process - from material selection and fastening concepts to installation. Operating conditions, the material being conveyed, and the customer's economic goals are all incorporated into every solution concept.

## Sustainability

As a family-owned, medium-sized German company, we focus on self-financed, organic growth and a long-term perspective.
This same consistency characterizes our products - supported by continuous quality assurance that ensures their high quality over the long term.



# Our Employees

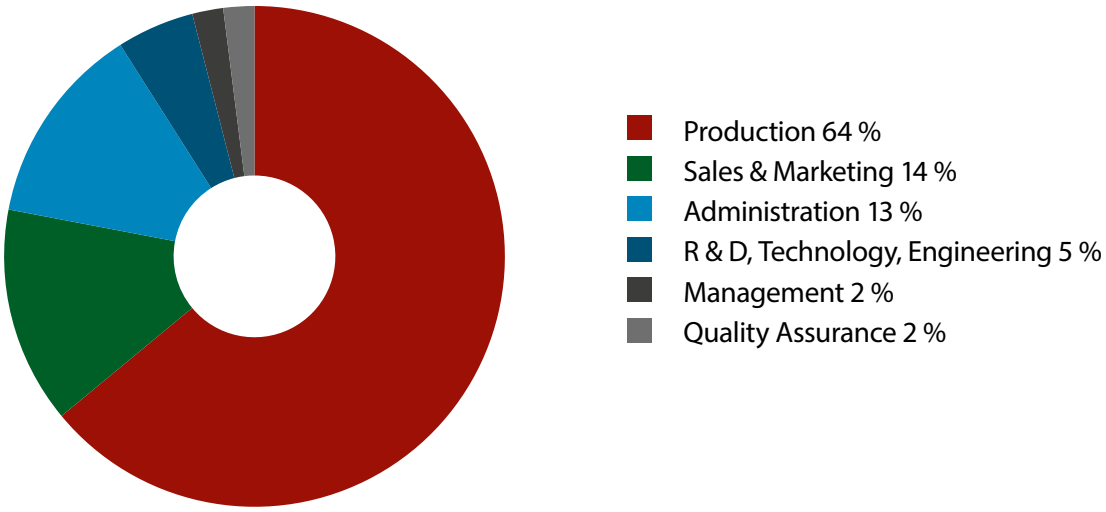
Our production combines modern manufacturing technology with meticulous craftsmanship. The employees at every plant are of particular importance to Kalenborn: Their skills, experience, and sense of personal responsibility are the keys to our success. Sustainability is deeply embedded in Kalenborn's culture – guided by strategic principles, employees independently define and implement measures.



A reflection of our corporate culture is the repeated recognition of our subsidiary, Kalenborn Abresist Corp., which was awarded first place as the "Best Place to Work in Manufacturing" in Indiana (USA) in 2022, 2023, and 2024.

# Workforce Structure

The workforce of 500 employees is heavily influenced by the value chain, with in-house industrial production, complemented by expertise in sales, technology, administration, and management.




# Equal Opportunity & Diversity

In industries with a strong focus on engineering, production, and sales, the proportion of women has historically been lower. Kalenborn is committed to employing more women in all positions – and has made tangible progress: The proportion of women has risen from 9% (2022) to 17% (2025).

| Year | Men (%) | Women (%) | Women in Management | Men in Management |
|---|---|---|---|---|
| 2022 | 91 | 9 | 3 | 16 |
| 2023 | 91 | 9 | 3 | 15 |
| 2024 | 91 | 9 | 3 | 14 |
| 2025 | 83 | 17 | 1 | 12 |

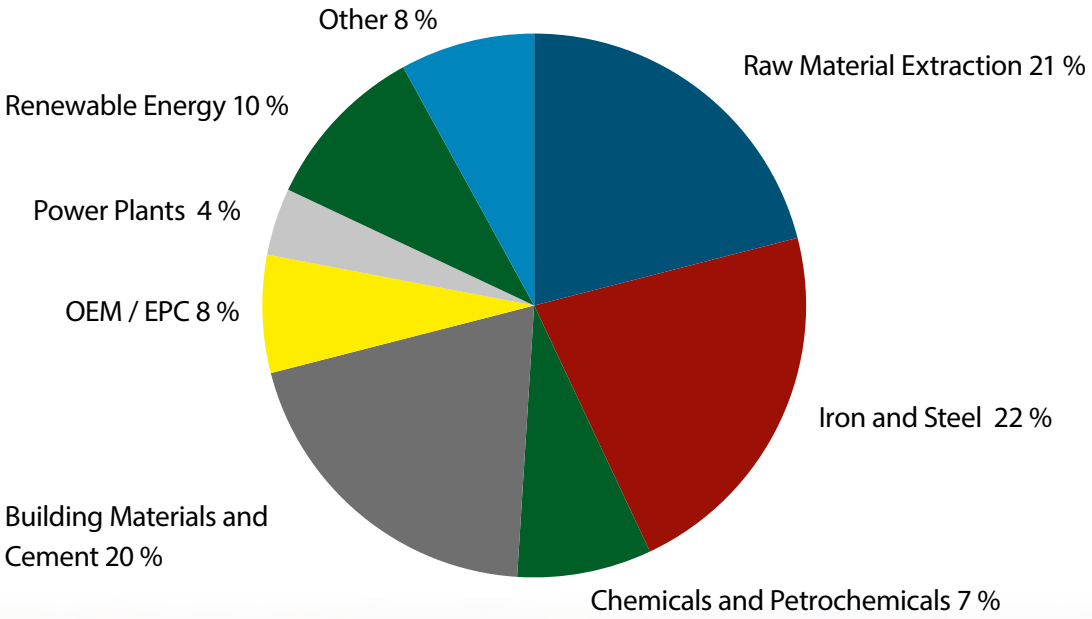
# Markets & Industries

The Kalenborn Group is broadly diversified across various core industrial sectors - with a focus on the basic materials industry and plant engineering. This diversification across industries and geographic markets makes the business model more resilient to economic fluctuations in individual sectors and regions.

DUNS Number (Data Universal Numbering System) 340114299

## Revenue Breakdown by Industry

During the reporting period, revenue was distributed among customer industries as follows.
The largest and fastest-growing segments are iron and steel, raw materials extraction, building materials and cement, and renewable energy:



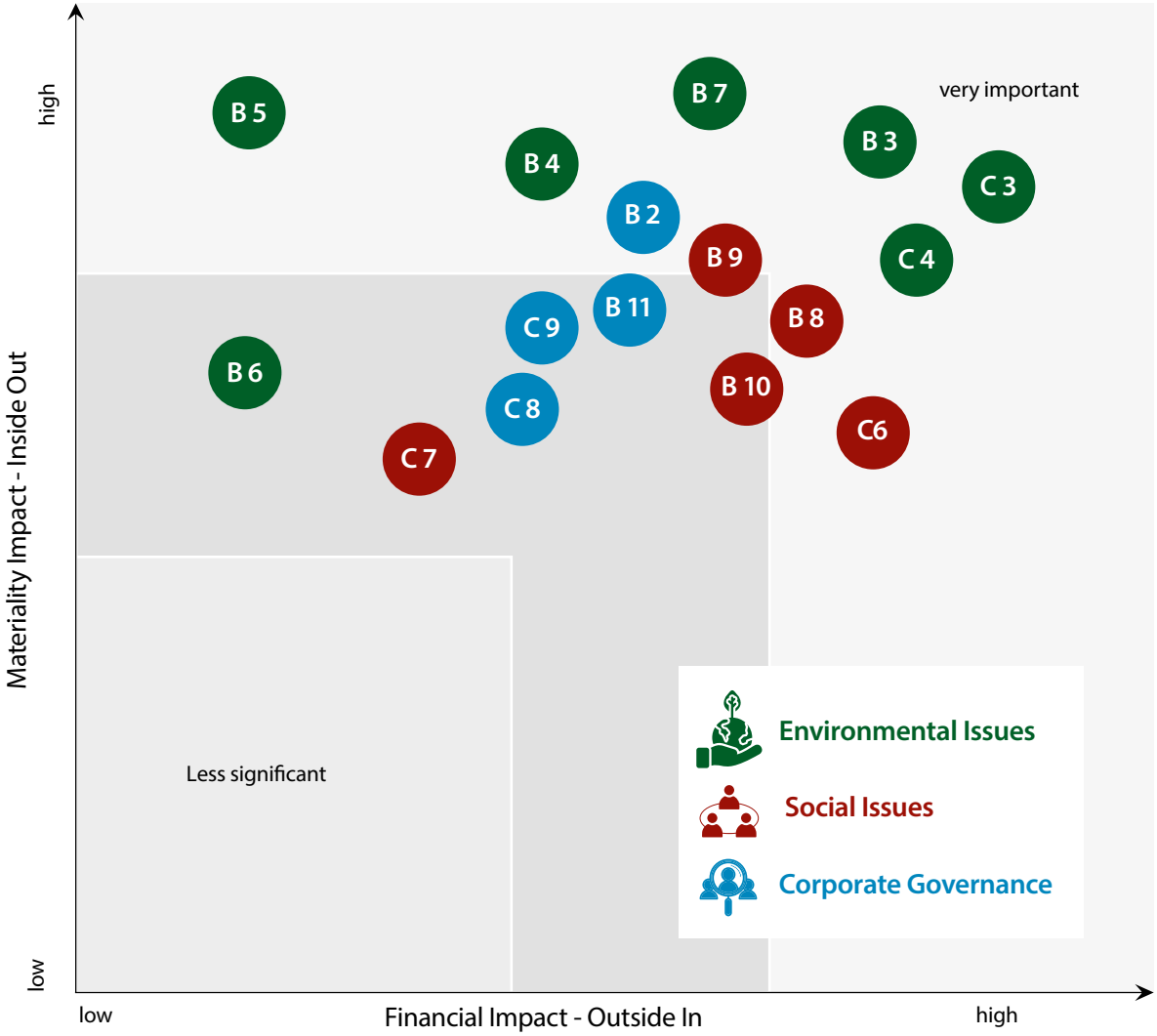



# Sustainability at a Glance

Sustainability is a top priority at Kalenborn and is firmly anchored in the company's strategy. The company voluntarily reports – in accordance with the European VSME standards – on environmental, social, and governance issues. The following key figures summarize the key developments for the reporting years 2023, 2024, and 2025.

## Materiality Matrix According to VSME

The reporting is based on a dual materiality analysis. We conducted this analysis in 2022 and expanded it in 2024. It evaluates each topic from two perspectives:
the impact of our activities on the environment and society (inside-out, Y-axis)
and the financial impact of sustainability aspects on the company (outside-in, X-axis).
For 2025, the material topics are categorized according to the modules of the VSME standard; the assignment of the modules to the topic areas follows the VSME Disclosure Index at the end of this report. The impacts, risks, and opportunities (IRO) were examined from environmental, social, and governance perspectives and have been incorporated into our sustainability strategy and operational management tools.




Materiality Matrix according to VSME – Classification of Modules B1–B11 / C1–C9.

Issues above the materiality threshold are considered material and are actively managed. Environmental issues related to climate change and the circular economy (B3, C3, C4, B7), social responsibility toward the company's own workforce (B8, B9, B10), and responsible corporate governance (B2, B11) have proven to be particularly material.

# Our Sustainability Goals – Responsibility with Impact

Kalenborn pursues a holistic sustainability strategy that integrates environmental, social, and economic aspects. To translate our ambitions into concrete actions, we have set clear goals in the following key areas:

## 1. Resource Conservation and Climate Protection I C3

- Reduce energy consumption in production by 20% by 2030 compared to the base year 2023 through energy-efficient technologies and process optimization
- Transition to renewable energy at all locations
- Reduce $CO_2$ emissions (Scope 1 and 2) by 20% by 2030 compared to the base year 2024; achieve $CO_2$ neutrality by 2045
- To achieve these goals, we are focusing on expanding energy-efficient processes, the gradual transition to renewable energy, the reduction of fossil fuels, and active emissions monitoring at all locations worldwide
- Increase resource efficiency through recycling, reuse, and material-optimized product design
- With our climate-efficient products, we are significantly increasing $CO_2$ emissions savings: re-linable GREEN PIPES from 22 metric tons of $CO_2e$ (2023) to 100 metric tons of $CO_2e$ by 2030. These savings result from replacing the wear-resistant lining while continuing to use the same steel structure; the number of relining operations depend on the overall economic situation of our customers

## 2. Protection of Natural Resources

- Waste prevention and recycling
- Promoting biodiversity through greening measures and sustainable land use

## 3. Social responsibility and employee development

- Expansion of health and safety programs with the goal of zero serious workplace accidents
- Promoting work-life balance through flexible work models
- Annual training for all employees

## 4. Sustainability in the supply chain

- Supplier audits, including those covering environmental and social standards, are conducted regularly for all strategic suppliers, provided they are not subject to voluntary ISO certification
- The majority of suppliers sign the Supplier Code of Conduct as part of the supplier audit

## 5. Transparency and Governance

- Integration of sustainability metrics into internal reporting and corporate management
- Publication of this sustainability report in accordance with the recognized VSME standard
- Raising awareness through training; 100% of employees participate annually in training on compliance and safety instructions

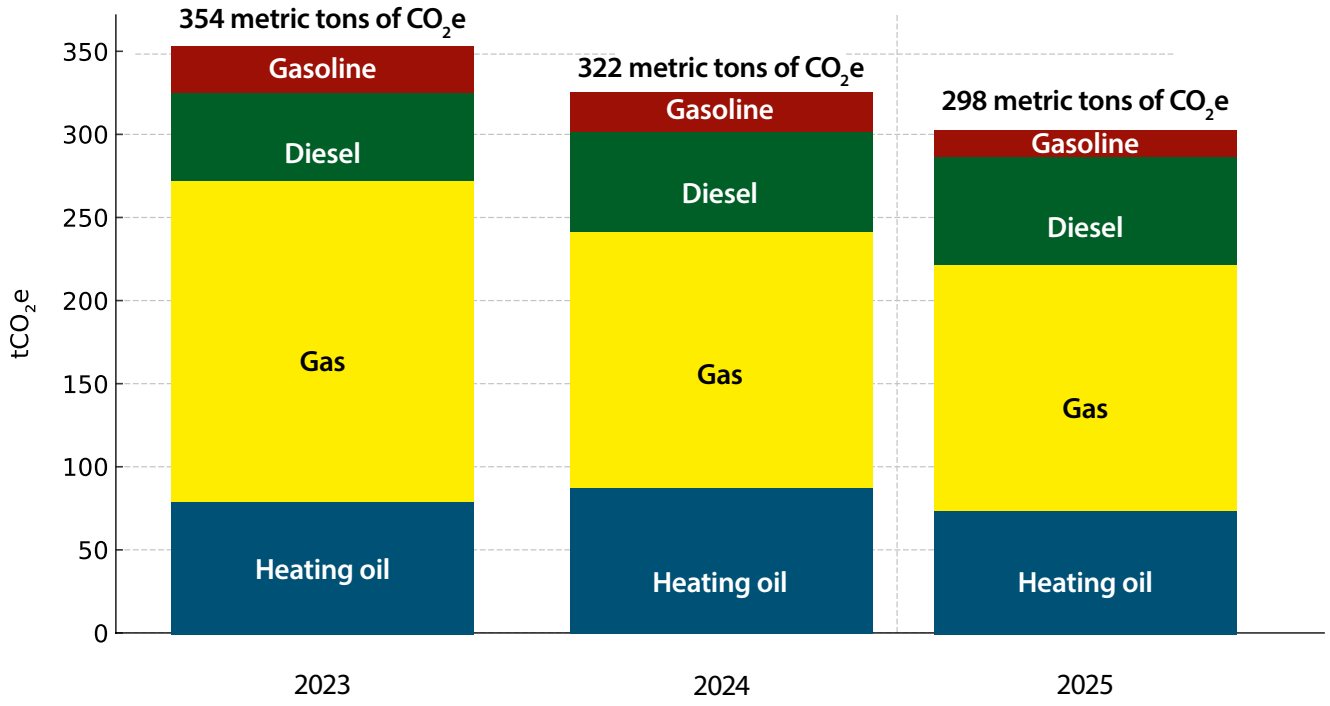


# Climate Protection & Emissions

Kalenborn discloses its greenhouse gas emissions in accordance with the Greenhouse Gas Protocol (GHG) in the categories Scope 1 (direct emissions) and Scope 2 (indirect emissions from purchased energy). In the future, Scope 3 emissions along the value chain will also be included.

| Company ($tCO_2e$) | S1 2024 | S2 2024 | Total 24 | S1 2025 | S2 2025 | Total 25 |
|---|---|---|---|---|---|---|
| U.S. (including Canada) | 76.8 | 167.7 | 244.5 | 188.8 | 172.9 | 361.7 |
| Brazil | 47.6 | 31.7 | 79.3 | 44.6 | 37.3 | 81.9 |
| Germany | 321.8 | 32.3 | 354.1 | 303.2 | 23.8 | 326.9 |
| Hungary | 822.1 | 31.2 | 853.3 | 1.256.7 | 38.1 | 1,294.8 |
| Poland | 2,500.0 | 200.0 | 2,700.0 | 2,314.0 | 576.0 | 2,890.0 |
| OSW, Poland | 222.5 | 1.804.1 | 2.026.6 | 215.0 | 1,823.0 | 2,038.0 |
| Philippines | 20.0 | 20.0 | 40.0 | 20.0 | 20.0 | 40.0 |
| Total | 4,010.8 | 2,287.0 | 6,297.8 | 4,342.2 | 2,691.1 | 7,033.3 |

At the German site, Scope 1 emissions are steadily decreasing – from 353.5 $tCO_2e$ (2023) from over 322.2 $tCO_2e$ (2024) to 297.7 $tCO_2e$ (2025). This was achieved by reducing gas consumption, modernizing heating systems, and switching to electric and hybrid vehicles.
Total energy consumption in Germany fell from 1.34 GWh (2023) to 1.12 GWh (2025).




Trend in Scope 1 Emissions at Kalenborn Germany by Energy Source ($tCO_2e$)



## Renewable Energy from Photovoltaics

The plants in Poland, Hungary, and Germany generate electricity from their own PV systems to 376,453 kWh (2024) and stood at 364,604 kWh. Of this amount, 217,698 kWh was consumed in-house in 2025 – both in production and for operating the electric and hybrid vehicle fleet.

## Resources & Circular Economy

The Product Carbon Footprint (PCF) is a method for calculating the greenhouse gas emissions generated by a product over its entire life cycle. The PCF is an important tool for companies to understand, communicate, and improve the climate impact of their products.
It enables companies to document targeted measures for reducing emissions along the entire value chain, thereby contributing to a more sustainable economy. Kalenborn had the individual PCF for its core products calculated by the institute myclimate Deutschland GmbH in Reutlingen and offers its customers a $CO_2$certificate based on these results.

Particularly noteworthy are the relined GREEN PIPES: The wear-resistant lining is removed and replaced at the end of its service life, while the steel structure of the pipe is reused. Even with the first relining of a steel pipe, up to 70% in $CO_2e$ can be saved compared to new production.
Since 2023, GREEN PIPES have saved 36 metric tons of $CO_2e$ and the reuse of complex plant components has saved 245 metric tons of $CO_2e$; relining activity nearly doubled in 2025 compared to 2024. At the end of a component's life cycle, we separate the materials and feed them into the recycling process.

## Waste (Kalenborn Germany)

The total amount of waste in Germany decreased from 177 metric tons (2024) to 147.5 metric tons (2025); the recycling and reuse rate rose to 64%.
Group-wide, waste generation decreased from 339.8 metric tons (2024) to 290.1 metric tons (2025).

| Category (Germany, 2025) | Amount |
|---|---|
| Total waste volume | 147.5 t |
| Non-hazardous waste, reuse | 32.5 t |
| Non-hazardous waste, recycling | 62.0 t |
| Non-hazardous waste, thermal recovery | 52.9 t |
| Hazardous waste, properly disposed of | 0.2 t |
| Recycling/reuse rate | 64 % |



## Water

Water consumption is primarily limited to sanitary facilities and cleaning activities. Group-wide consumption amounted to 5,738 $m^3$ in 2023, 5,901 $m^3$ in 2024, and 5,771 $m^3$ in 2025. Water consumption is assessed as a not material sustainability matter.

# Social & Safety

Safety, Health, and Environmental Protection (SGU/EHS) are fundamental corporate values.
The overarching goal is clearly defined: zero serious injuries or fatalities.
During the years covered, Kalenborn recorded no serious accidents.

| Key Figure | 2024 | 2025 |
|---|---|---|
| Employees worldwide | 548 | 500 |
| Hours worked | 901,820 | 787,244 |
| Reportable serious accidents | 0 | 0 |
| Lost Time Injury Rate (LTIR) | 0 | 0 |

## Corporate Governance & Supply Chain

Ethical conduct, transparency, and compliance with all applicable laws form the foundation of our actions. The company-wide Code of Conduct and the "Give Notes" whistleblower system ensure prevention and compliance - both internally and throughout the supply chain. Kalenborn has not been convicted of any violations of anti-corruption or anti-bribery laws and, as a signatory to the UN Global Compact, is committed to its ten principles.

In supplier management, Kalenborn takes a risk-based approach to identifying, assessing, and minimizing human rights and environmental risks. A Supplier Code of Conduct, standardized onboarding, adherence to internationally recognized standards (ISO 9001, ISO 45001), and transparent documentation of relevant evidence strengthen reliability throughout the entire value chain.



# Sustainability Highlights

## The most important results and awards from the reporting period at a glance.

## Recognitions

**We support UN Global Compact**

Support for the UN Global Compact since 2022

2025 PARTICIPANT

Our company is committed to upholding the Ten Principles of the **United Nations Global Compact**. Please refer to our **Communication on Progress.**

**Silver in the EcoVadis Sustainability Rating**

The EcoVadis Silver Medal is an award given to companies that rank among the top 15% of all companies assessed by EcoVadis worldwide in the area of sustainability. It certifies robust and strategic sustainability management as well as structured processes and guidelines in the four key areas of environment, labor and human rights, ethics, and sustainable procurement.*

**Certifications according to DIN EN ISO 9001, 45001, SCC, DIN 3834-2, AD 2000**

**R&D BSFZ Seal**

The Federal Ministry of Research, Technology, and Space of the Federal Republic of Germany certifies the research and development nature of the development projects.*

## Environment

- Up to 70% $CO_2e$ savings with relineable GREEN PIPES
- 18.5% reduction in total energy consumption compared to the base year 2023*
- 27% reduction in Scope 1 and Scope 2 emissions*
- 377 kWp of renewable energy from PV with 365 MWh of production
- 40% of Kalenborn's site area - 70,500 $m^2$ - consists of near-natural compensation areas

## Social

- 17% of employees worldwide are women
- No serious accidents or fatalities
- No human rights violations
- "Best Place to Work in Manufacturing": Kalenborn Abresist Corp. 2022, 2023, 2024

## Corporate Governance

- "Give Notes" whistleblower system implemented worldwide
- All employees receive training on the Code of Conduct
- Supplier Code of Conduct implemented

* Refers to Kalenborn Germany



# We combine Dedication with Experience

**For more than 100 years, Kalenborn has been developing and manufacturing high-quality, wear-resistant materials in-house. The custom-fit linings for industrial plants significantly extend their service life, reduce maintenance requirements, and lower $CO_2$ emissions through longer operating times.**

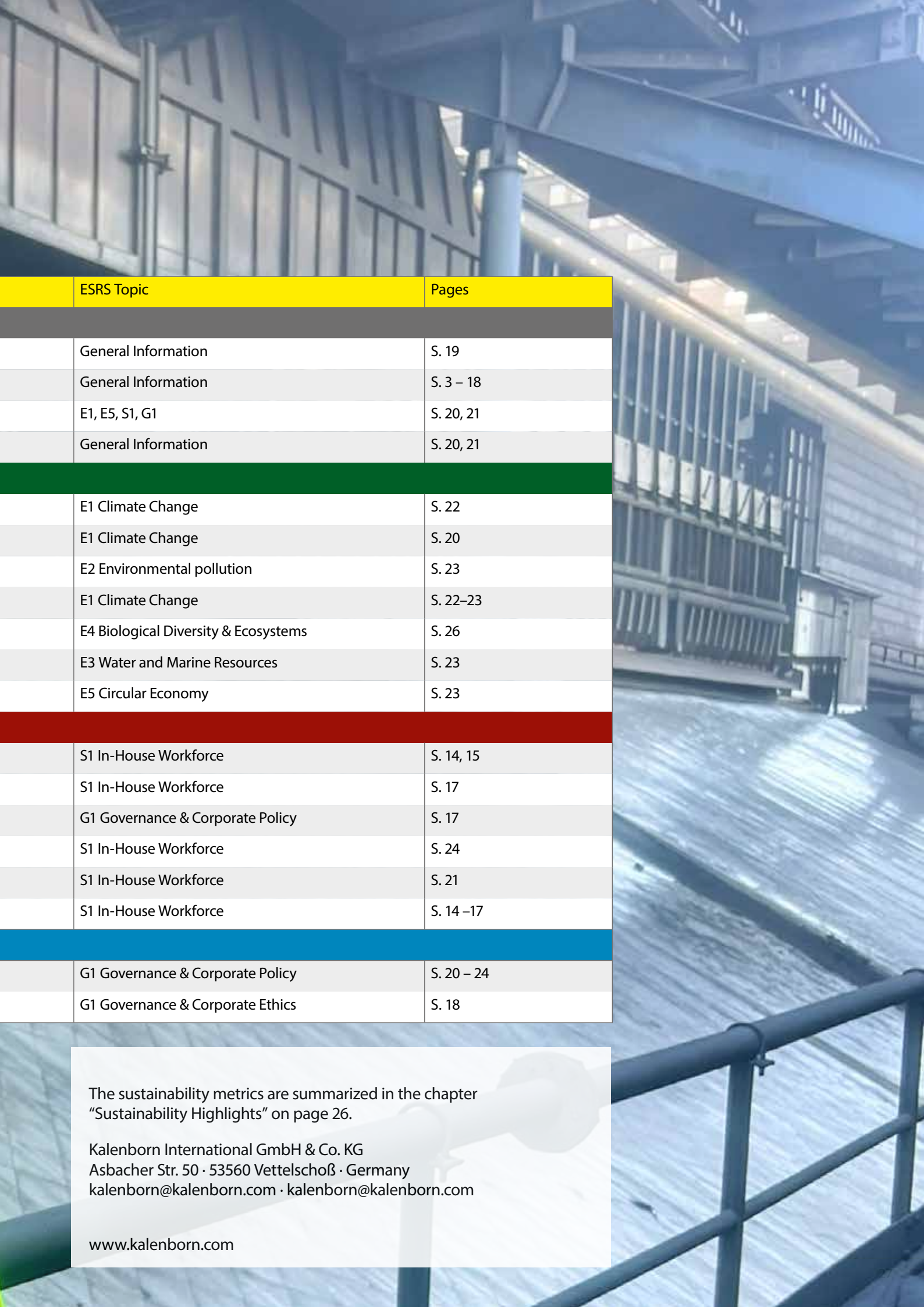
## A business model for resource-efficient operations

**Our material portfolio includes, among other things, fused basalt, zirconia-corundum, alumina and silicon carbide ceramics, chromium carbide plates, hard metal castings, high-performance concretes, and sliding plastics.**
**These material solutions reduce energy and material consumption throughout the value chain and promote resource-efficient operations - both for our customers and in our own production.**

# VSME Disclosure Index

**Kalenborn reports voluntarily in accordance with the European VSME Standard (Voluntary Sustainability Reporting Standard for unlisted SMEs).**
**The following index maps the core module disclosures (B1–B11) and the comprehensive module disclosures (C1–C9) to the ESRS topics and the chapters of this report.**

| Module | VSME Disclosure |
|---|---|
| VSME – General Information | |
| B1 | Basis for Preparation |
| C1 | Strategy: Business Model and Sustainability Initiatives |
| B2 | Practices, Policies, and Future Initiatives for the Transition to a Sustainable Economy |
| C2 | Description of practices, guidelines, and future initiatives |
| Environment | |
| B3 | Energy and Greenhouse Gas Emissions |
| C3 | Goals for Reducing Greenhouse Gases and Climate Change |
| B4 | Air, Water, and Soil Pollution |
| C4 | Climate Risks |
| B5 | Biodiversity |
| B6 | Water |
| B7 | Resource Use, Circular Economy, and Waste Management |
| Social Issues | |
| B8 | Workforce – General Characteristics |
| C5 | Additional (General) Characteristics of the Workforce |
| C9 | Gender Diversity Ratio |
| B9 | Workforce – Health and Safety |
| C6 | Additional Information on the Company's Own Workforce – Human Rights |
| B10 | Workforce – Compensation, Collective Bargaining Agreements, Training |
| Corporate Governance | |
| B11 | Compliance with Regulations / Convictions and Fines for Corruption and Bribery |
| C8 | Revenue from Specific Sectors and Exclusion from EU Indices |



| | ESRS Topic | Pages |
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| | General Information | S. 3 – 18 |
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The sustainability metrics are summarized in the chapter "Sustainability Highlights" on page 26.

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Kalenborn
Wear Protection Solutions

COMPANY REPORT_EN_2023–2025

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