



ABOUT THE REPORT

With its fifth sustainability report, Soda Sanayi A.Ş. presents its stakeholders the sustainability performance covering the period between January 1, 2018 - December 31, 2018 based on the “Core” option of the GRI Standards.

The data in the report covers all legal businesses of Soda Sanayi* in Turkey and abroad. Due to this expansion within the scope of reporting, performance data only covers 2018. In the future reporting periods, the performance data will be presented starting from 2018 and will continue to be presented comparatively based on years.



Stakeholder feedback is extremely important in improving both our activities and our reporting process. You can send all your comments, suggestions and complaints to Bediz Ezici, Production Manager at bezici@sisecam.com.tr.

* Soda Sanayii covers Şişecam Bulgaria EOOD, Oxyvit Kimya, Şişecam Soda Lukavac, Cromital, Şişecam Chem Investment BV, Şişecam Elyaf Sanayii ve Tic. A.Ş., Solvay Şişecam Holding AG, Şişecam Trading Co.



MESSAGE FROM THE CHAIRMAN OF THE BOARD



Esteemed Stakeholders,

With the sixth edition of our report that was issued according to the Global Reporting Initiative Standard, we present the sustainability performance of Şişecam for the opinion of stakeholders. Our report is also a summary of the practices we have undertaken within the scope of the United Nations Sustainable Development Goals, which we are a party to and supporter of.

At Şişecam, the focus of our operations in 2018 was sustainable growth and profitability. At a time defined by evident risks both in the world and in Turkey, the sales revenues of Şişecam Group increased to TRY 15.6 billion by 37%, compared to the previous year. Şişecam continued to deliver its high value-added products to customers in 150 countries with exports exceeding \$760 million in 2018. Having undertaken sustainability-driven future investments upon all these achievements, Şişecam made a strategic investment worth a total of TRY 2.6 billion in 2018.

For Şişecam Group, the key to leave a sustainable world for future generations and act as a solution partner accordingly lies in becoming a Group that has faith and knowledge in the concept of sustainability. To this end, as a global player with approximately 22,000 employees across 13 countries, Şişecam initiated its integrated corporate sustainability strategy in 2018 under the title “Care for Next”.

Integrating sustainability into its internal processes, Şişecam Group has attained international achievements with its initiatives in this field. Our Group managed to rank in the “Top Performers in Emerging Markets” list as part of the “Viego Eiris Sustainability Index 2018”, which evaluated 855 companies from 35 industries in 31 countries.

Şişecam continued to create value for its stakeholders and environment during the reporting period, driven by “preserve”,

“empower” and “progress”, which are the focal points determined in 2017.

Operating in the energy-intensive industries, Şişecam Group sustained its efforts to increase energy consumption efficiency in 2018. Thanks to the efforts undertaken over the reporting period, 815,285 GJ of energy has been saved. Within the scope of the projects undertaken to promote conscious use of natural resources, many projects have been managed in the reporting period. With the “Glass and Glass Again” project which is managed to increase glass cullet usage, a total of 184,000 tons of glass cullets have been reused in 2018, leading to increase by 7% in comparison to 2017.

Driven by the awareness that equal participation in employment is one of the most decisive factors in the advancement of society, corporate objectives were set in 2018 to further offer opportunities to employees, from any business level, to fulfill their potential regardless of any biases such as background, age, gender or physical handicaps. With the “women-friendly factory standards” the potential of working environments in the production facilities to meet the basic needs of all individuals was reviewed and improvement projects were initiated.

Our Group brought together the Research and Technological Development (R&TG) activities and design activities under a single roof, renaming it as “Şişecam Science, Technology and Design Center” in 2018 in order to strengthen the links connecting the value chain, from the raw material to the final product, and to further accelerate the synergy of the design and development groups. In addition, 21 products/technologies were commercialized, 17 patent applications were made, 3 patents and 13 designs were registered in the reporting period. In 2018, collaborations were made with a total of 21 Universities-Research Institutes, namely 14 national

and 7 international-scale and with R&D departments of a total of 34 companies, 19 of which are national and 15 of which are international. Additionally, activities were actively maintained in 2018 to adopt a culture that fosters the leadership role for use and continuous development of digital technologies in business processes, and to sustain the Digital Transformation Program.

Şişecam Group established a Vocational and Technical Anatolian High School in Bursa, Yenişehir in cooperation with Bursa Governorship, Provincial Directorate of National Education and Yenişehir Municipality and the school started the educational program in 2018. The school features a variety of support units, primarily workshops and laboratories, in addition to 16 classrooms. This educational facility generates permanent value for the sector and the region by providing services to meet the need of qualified technical personnel.

Şişecam Group is among the longest standing representatives of the glass heritage in our country. Şişecam Group continued practices that will protect this heritage and keep it alive in 2018 as well. Şişecam Group adopts it as a principle to create value by contributing to social development and the protection of cultural heritage, undertaking social responsibility activities under the guidance of the UN Sustainable Development Goals.

I would like to express my gratitude to all of our stakeholders, especially our valuable employees as the most important contributors on our journey towards transforming into a solution partner of a sustainable future.

Prof. Dr. Ahmet Kirman
Chairman of the Board



MESSAGE FROM THE PRESIDENT OF CHEMICALS GROUP



Esteemed stakeholders,

We have concluded another successful year, driven by our sustainable and profitable growth objectives. As a company placing sustainability at the core of its operations, we share our performance with our fifth sustainability report.

Our Company reached all of its financial and operational targets with a successful performance in the 2018 reporting period, where marked increased economic and political conjuncture fluctuations, while the global economic growth was moderate. Soda Sanayii A.Ş. increased its consolidated shares to TRY 3.4 billion by 40%; EBITDA volume to TRY 1.4 billion by 78%; and EBITDA margin to 40%. The investment expenditures of Soda Sanayii A.Ş. amounted to \$170 million in the 2018 reporting period.

Having adopted the continuous improvement strategy for environmental investments, Soda Sanayii A.Ş. saved 59,000 GJ of energy through energy efficiency projects, which, in turn, resulted a saving equals to TRY 1.59 Million in the reporting period. In addition to meet our energy need through our energy production center, we have sold 778 million kWh of electricity in 2018.

The R&D activities of Soda Sanayii A.Ş. take place in line with our goals such as developing the current processes in soda and chromium compounds production with low-cost technologies in an

environment-friendly manner; expanding the product portfolio with new value-added products; and increasing the competitive power with the efforts that reduce the costs and increase productivity. To this end, the activities such as examining the usage of alternative input and developing analysis methods, as well as process modeling activities were maintained across the soda product group during the reporting period.

In 2018, field observations were conducted within the scope of occupational health and safety at Soda Sanayi A.Ş., its affiliated facilities and plants. Activities were undertaken on matters related to legal obligations, and necessary trainings were offered in accordance with the Occupational Health and Safety Law. On-the-job training sessions (Tool Box) were arranged in order to disseminate the occupational health and safety culture across the company.

Soda Sanayii A.Ş. continued to support the “Investigation, Monitoring and Protection of Sea Turtle Populations in the Province of Mersin in the Season of Reproduction”, in 2018, by cleaning reproduction areas of sea turtles within the scope of the activities undertaken to increase the environment and natural awareness.

I would like to express my gratitude to all our stakeholders, especially our employees, for the sustainable achievements we attained.

Tahsin Burhan Ergene
Chemicals Group President

milyon ABD doları

» 170

Soda Sanayii A.Ş., 2018 faaliyet döneminde tutarında yatırım harcaması gerçekleştirmiştir.

ABOUT SODA SANAYİİ A.Ş.

Founded in 1969, Soda Sanayii A.Ş. is the 5th largest producer of soda in Europe and 9th largest in the world. The company is the world's leading manufacturer of chromium chemicals. Soda Sanayi A.Ş., which carries out its production activities in four countries, produces electricity, glass fiber, vitamin K3 derivatives and sodium metabisulphite in addition to soda and chromium chemicals. Soda Sanayii A.Ş. conducts its activities in accordance with the environment, health and safety management systems under the "Commitment of Trilateral Responsibility", which is a voluntary application specific to the chemical industry.

VISION

Şişecam Chemicals Group is one of the world leaders in the main competency fields, evaluates new opportunities that will create synergy with its existing activities and produces global solutions for its customers with environmental-friendly technologies.

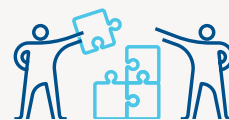
MISSION

Being a company adding value to the life with quality and comforting products and respecting people, nature and law.

VALUES



Gaining strength from traditions, supporting each other



Adopting a fair and transparent understanding of management



Improving and progressing together



Environmental awareness



Respecting differences



In the field of glass fiber; the furnace of Şişecam Fiber facility equipped with modern technology, which operates in Balıkesir with its low-cost production process and value-added product portfolio, was fired at the end of 2018 and the facility was commissioned in the first days of 2019.

Şişecam Fiber aims to increase the sales of single-end roving products within the scope of approved projects and projects with pending approval in line with the government's policy of supporting domestic production. Şişecam Fiber products aiming to meet the specific requirements of the major industries in Turkey and abroad have DNV-GL, Lloyds Register and FDA certifications.



STRATEGY

» Sustainable profitable growth » Effective cost management
» Energy efficiency » Market diversity and penetration »
Strengthening our leading position in the market » Customer focus » Environment and sustainability

SODA SANAYİİ A.Ş. IN 2018



SODA SANAYİİ A.Ş. PRODUCTION FACILITIES



Production Facilities in Turkey

Soda Plant - Mersin • Kromsan Chromium Compounds Plant - Mersin • Şişecam Elyaf San. A.Ş. - Balıkesir • Oxyvit Kimya San. ve Tic. A.Ş. - Mersin

Production Facilities Abroad

Solvay Sodi AD - Bulgaria • Sisecam Soda Lukavac d.o.o. - Bosnia and Herzegovina • Cromital SpA - Italy

INTEGRATED CORPORATE SUSTAINABILITY APPROACH

SUSTAINABILITY IN ŞİŞECAM: WHY? WHAT? HOW?

Glass production, which has a history of thousands of years and reflects the cultural richness of humanity, is an energy- and resource-intensive industry. As one of the leading companies in the world glass industry, Şişecam Group recognizes its responsibility to create a sustainable world and protect its corporate heritage.

Fluctuations in energy and natural resources prices, increasing customer and employee expectations, facilitating access to information, accelerating and globalizing business world have made corporations more accessible. In addition to all these

trends, Şişecam Group globalizes its activities further every day. Therefore, developing solutions to the problems that our planet faces is a business priority for Şişecam. Şişecam Group's sustainability approach is based on a well-established corporate legacy, aiming at excellence in all its activities and creating long-term value for future generations. The sustainability strategy of Şişecam Group is the response to global problems, such as decreasing resources, social inequality and demographic changes on our planet.

Why?

As a “community company”, Şişecam Group believes that everyone has the right to live in a healthy and clean environment. Empowered by its corporate heritage, Şişecam adopts a fair and transparent management approach that respects the differences while strengthening and developing its stakeholders.

What?

The sustainability trends that Şişecam faces are the implementation of production models that have no negative impact on climate change and that support the circular economy, contribution to sustainable natural resource management, protection of company traditions, acceleration of the implementation of innovative, provision of equal opportunities to everyone and being an international supporter on sustainability.

How?

Şişecam Group has decided to expand its principles of sustainability in its operations, since they help it become a fair and transparent global player, enable it to realize and implement sustainable business opportunities, makes the Group more durable to its sustainability megatrends and increase the added value it creates for future generations.

OUR PURPOSE: Adding value, shaping the future with our products and services and sharing the value we create.

ŞİŞECAM SUSTAINABILITY STRATEGY: CARE FOR NEXT

In Şişecam, one of the most important industrial groups of Turkey operating with approximately 22,000 employees in 13 countries, corporate sustainability is the core of its way of doing business. All investment decisions and product and process development activities are planned and carried out considering the social and environmental impacts of the activities.

Şişecam’s sustainability strategy is shaped by the company’s holistic risk approach. Climate change, decreasing natural resources, rise of social networks, digitalization, change of economic balances, social inequalities and technological innovations constitute the major global trends that will affect the company’s business processes in the future. Aiming to be one of the world’s leading companies in all of its fields of operation, Şişecam observes the risks and opportunities created by these trends while forming a corporate sustainability action plan.

Şişecam’s sustainability strategy aims to create long-term value for all stakeholders. Also integrated into the business strategy of the Group, this approach is based on the main axes of creating permanent value, protecting natural resources, investing in people and following technological innovations.

Directing its activities by considering the common opportunities, risks and objectives of humanity, Şişecam Group adopted the United Nations Sustainable Development Goals (SDGs) and developed its sustainability strategy in accordance with global goals. Şişecam identified the SDGs that it contributed the most with a workshop held in 2017 and focused its efforts on sustainability in these goals. The requirements of the United Nations Global Compact, which is supported by Şişecam Group, constitute the inputs of the sustainability strategy.

In 2017, Şişecam’s sustainability strategy was revised and reshaped around the “Preserve”, “Empower” and “Progress” axes. Şişecam Group launched the integrated corporate sustainability strategy, which consisted of these fundamentals, under the name of “Care for Next” in order to create value for the future in 2018.

With its “Care for Next” approach, Şişecam aims to preserve natural resources and corporate heritage for new generations, to approach all its stakeholders with principles on respecting diversity and inclusion,

to encourage digitalization, and to continue operations without any negative impacts on climate change.

In line with Şişecam’s business strategy and risk approach, Care for Next is an integrated strategy that is formed by considering the stakeholder expectations, reflects the sustainability priorities of the organization and conforms to the UN Sustainable Development Goals.



You can access the details of Şişecam’s sustainability approach via the Sustainability tab of Şişecam Group’s corporate website. The stakeholder communication applications applied in Şişecam Group can be found on page 31. of the report.

SECOND INTERNATIONAL SUSTAINABILITY WORKSHOP

The Second International Sustainability Workshop, one of the most important sustainability organizations of the Şişecam Group, was held on November 14, 2018. During the workshop themed “Transition from the Information Society to Smart Society”, the effects of the issues such as technological developments in the world, digital transformation, the new dynamics of the global economy, and the effects of such issues on business world and models of doing business were discussed. Information was shared on Şişecam and Industry 4.0 works carried out in the supply chain. Şişecam’s new sustainability strategy “Care for Next” was introduced to our stakeholders at the workshop. Within the scope of the workshop, a poster exhibition consisting of a total of 83 new best practices were organized by associating the good practices carried out in the factories with the Sustainable Development Goals. In addition, a “best practices guide” was prepared to be distributed to the participants. More than 300 guests from 13 countries participated in the workshop.

ŞİŞECAM SUSTAINABILITY STRATEGY: CARE FOR NEXT



SUSTAINABLE DEVELOPMENT GOALS AND ŞİŞECAM

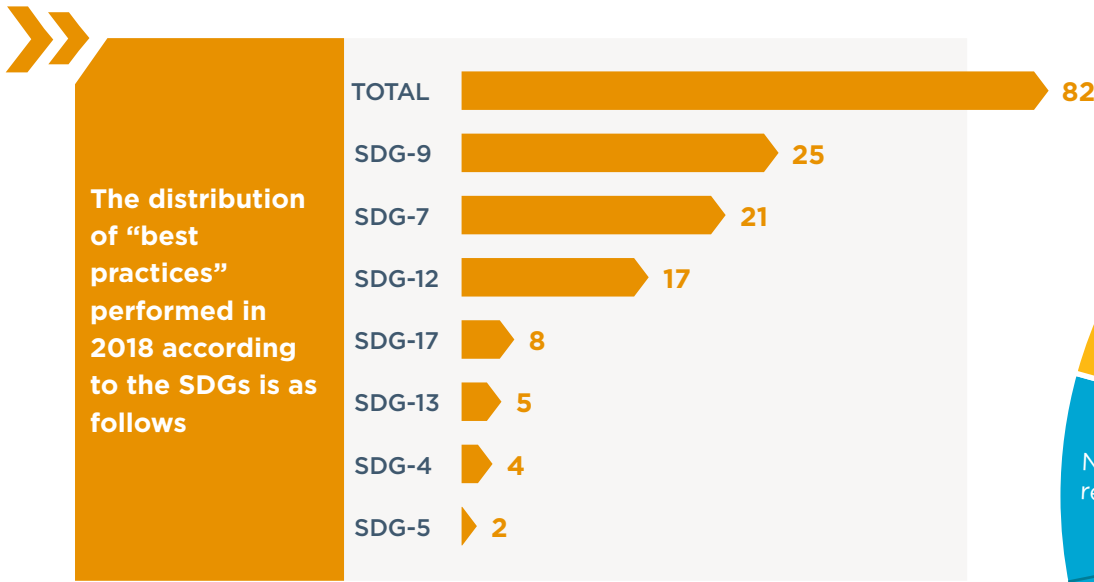
Adopting sustainability as the focal point of its activities, Şişecam acts with the awareness of its responsibility for sustainable development. As an important result of this understanding, Şişecam adopts the United Nations Sustainable Development Goals (SDGs) and implements its sustainability strategy in line with the global goals in this regard.

Şişecam, evaluating its sustainability strategy establishing on the understanding of “Preserve, Empower and Progress” in the light of the SDGs, contributes to 11 development goals under these main headings through its practices.

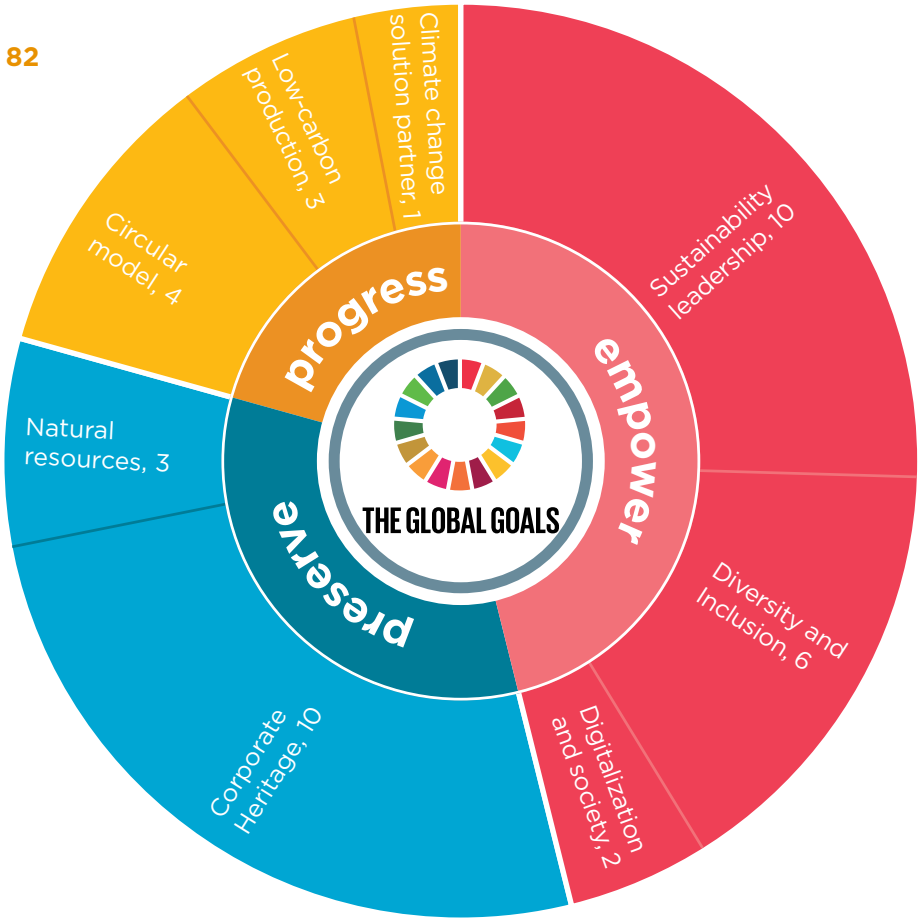


Şişecam has set targets for the Sustainability Committee and Working Groups in order to exhibit its contribution to the SDGs. These goals and actions taken in line with the goals establish the link between Şişecam Sustainability Strategy and SDGs. In 2018, 39 actions were determined and completed. The distribution of these actions among the elements of the Sustainability Strategy is shared below.

Another indication of the integration of the SDGs into the business strategy in Şişecam Group is the matching of “best practices” in the area of sustainability that we share with the stakeholders throughout the year with the SDGs. Thus, awareness on the SDGs is increasing in the Group Companies and the contribution to the SDGs is supported by concrete practices.



SDG-9: Industry, Innovation and Infrastructure • SDG-7: Affordable and Clean Energy • SDG-12: Responsible Consumption and Production • SDG-17: Partnership For the Goals • SDG-13: Climate Action • SDG-4: Quality Education • SDG-5: Gender Quality



SUSTAINABILITY MANAGEMENT

Sustainability management is a multi-layered and participatory structure in Şişecam Group. Having different tasks and responsibilities; the Sustainability Committee, Workgroups and Sustainability Directorate are the bodies responsible for the implementation of the Group’s sustainability strategy.

Headed by the Strategy Department and formed by the senior-level participation of Production Groups, Human Resources, Strategy, Innovation, Industrial Relations, Information Technology, Finance, Risk, Purchasing and Corporate Communication departments, the Sustainability Committee coordinates the sustainability efforts and creates synergy in order to find system-based solutions with actions causing high impact. Sustainability Committee ensures communication between workgroups and Group companies on sustainability and realization of joint projects. The Committee is responsible for the integration of sustainability strategy to Şişecam processes, realization of operational improvement activities and the coordination, direction and monitoring of the activities of Sustainability Committee sub-workgroups.

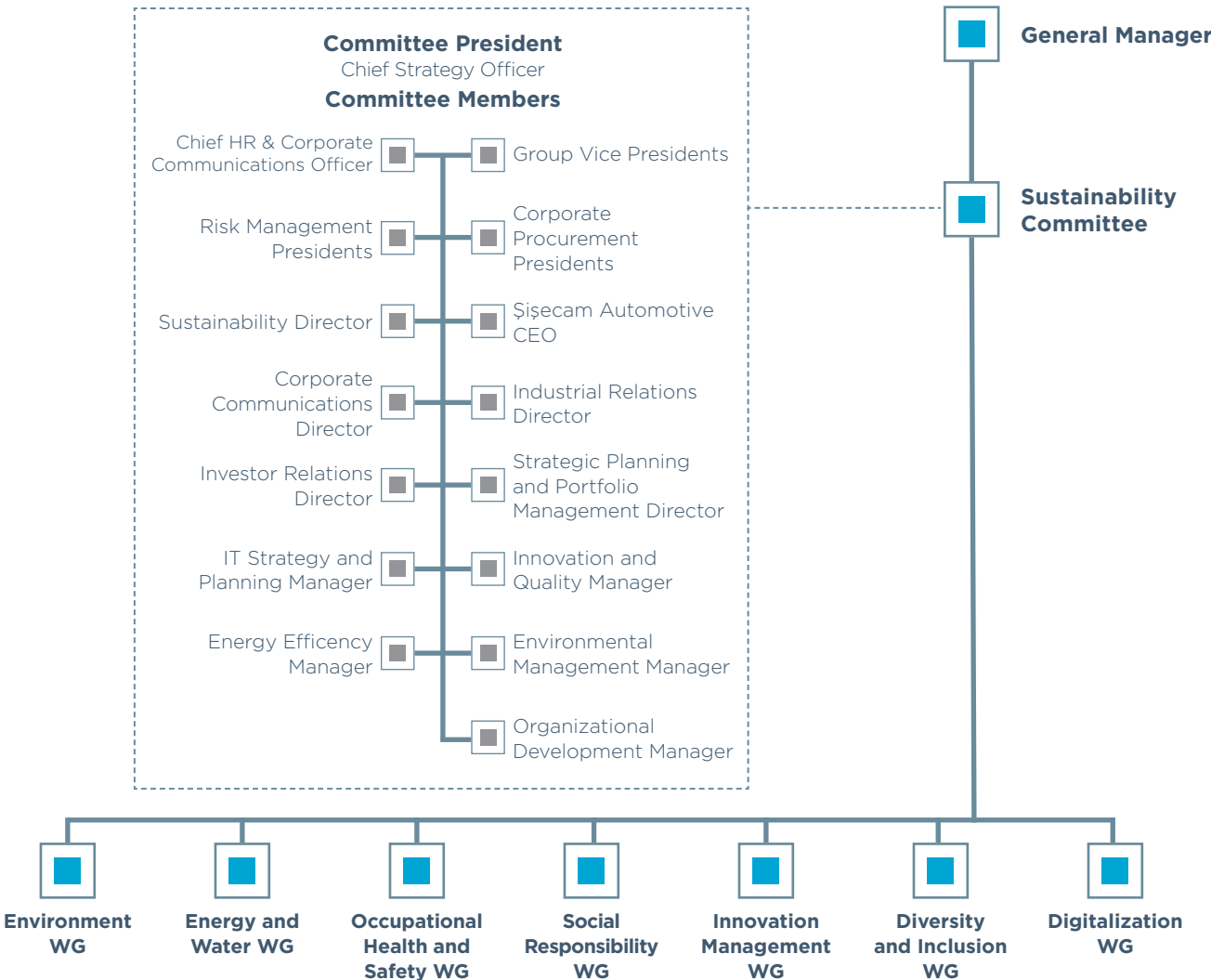
Each of the Group Production Vice Presidents is an active member of the Sustainability Committee and manages the practices of the sustainability strategy within the Group. In 2018, the Committee convened 4 times to evaluate the Group’s performance in achieving its sustainability targets.

6 active workgroups within the Committee ensure direct implementation of the Şişecam Group’s sustainability strategy and action plan. Workgroups operating in the sub-fields of environment, production technologies and energy, occupational health and safety, innovation, diversity and inclusion and corporate social responsibility continued their regular meetings in 2018.

The Sustainability Directorate within the Şişecam Group is responsible for bringing together the teams responsible for production, branding, communication, human resources, infrastructure, supply and quality by coordinating corporate sustainability activities. The Directorate

also implements practices on issues such as corporate sustainability reporting, supply chain sustainability, sustainability training programs, measuring sustainability effectiveness, energy and natural resources management.

ŞİŞECAM GROUP SUSTAINABILITY MANAGEMENT STRUCTURE





PERFORMANCE MONITORING AND TRACKING

Sustainability performance is carefully monitored and reported regularly in Şişecam Group, which puts its sustainability strategy at the center of its business. Şişecam benefits from smart goals to monitor performance across the Group. The goals set in the “Preserve”, “Progress” and “Empower” axes are tracked by comparing them with key performance indicators and best practices. Short- and medium-term goals were set for all main objectives, thus the effect of variable social and economic developments was also taken into account. Annual sustainability scorecards and half-year evaluations are key mechanisms in Şişecam Group for monitoring sustainability performance and providing feedback.

In addition to the goals set by Şişecam Group, the sustainability parameters determined by international financial institutions such as EBRD and IFC in areas such as occupational health and safety, ethics and environmental sustainability are the indicators tracked and reported in this field.

Soda Sanayii A.Ş. was included in the “November 2018-November 2019 BIST Sustainability Index”, which was formed after reviewing the top 50 companies listed on Istanbul Stock Exchange (BIST). Within the scope of Viego - Eiris Sustainability Index 2018 Assessment, Şişecam ranked in the top 100 in “Best Emerging Markets Performers” ranking in 2018.

At Şişecam Group, all corporate policies referenced in performance monitoring and tracking systems are available on the Sustainability tab of the corporate website.

COLLABORATIONS AND STAKEHOLDER ENGAGEMENT

Şişecam Group aims to increase its corporate capacity and expand its impact area through local and global collaborations developed in the field of sustainability.

In addition to global platforms, Şişecam Group also develops subject-based partnerships in product lifecycle management, social inclusion, integration of sustainability into business processes, big data management, and biodiversity. Plans are also being made to expand these partnerships to the entire value chain.

Şişecam realizes its mission of being an international leader and advocate in the field of sustainability by empowering local communities and contributing to the industry in which it operates. Şişecam shares its experiences in the industry with its business partners by taking various roles in many events, summits and forums throughout the year.

Şişecam cooperates with universities and research institutions in Turkey and abroad within the scope of research, technological development and design activities. Initiated in 2016 with the Gebze Technical University in order to provide human resource to the glass industry, “Glass Science and Technology Master’s Program” continued to admit students in 2018 as well.

Şişecam Group considers its dialogue with stakeholders as an important element in continuous development of Sustainability performance. With the awareness of the value added by different ideas, it continuously incorporates the stakeholder expectations into decision making processes.

Soda Sanayii A.Ş. shares its sustainability performances with its stakeholders through sustainability reports it publishes annually. In order to make the reports accessible to our visually impaired stakeholders, they are also prepared as Turkish and English audio books. The CEO message distributed along with the communication package was also written with Braille alphabet; recycled and FSC-Certified papers were used in printed materials.

As a result of its performance in sustainability, Soda Sanayii A.Ş. has been included in Istanbul Stock Exchange Sustainability Index since 2017.

The stakeholder communication methods applied in Soda Sanayii A.Ş. can be found on page 31 of the report.

The corporate memberships table applied in Soda Sanayii A.Ş. can be found on page 31 of the report.



SUSTAINABILITY GOALS

Şişecam has set its sustainability targets and commitments in line with the Sustainable Development Goals to implement the Sustainability Strategy. Soda Sanayii A.Ş. has set its goals for 2022 for three focus areas in the sustainability strategy, and identified key performance indicators that measure these targets.

2022 TARGET	2018 REALIZATION
PRESERVE	
Reuse of 5% of treated industrial waste water.	Cromital Plant reuses all of the wastewater.
Development of at least 4 industrial synergy programs.	The researches on industrial synergy alternatives continued.
Initiation of biodiversity and conservation practices with local population in operation geographies.	Work in progress.
EMPOWER	
Zero occupational accidents - “Lost Time Injury Frequency Rates” (LTIFR)	The efforts to reduce occupational accidents continued.
Popularization of inclusive culture in Şişecam Group and stakeholders.	Work in progress.
Measuring the development with indicators.	Work in progress.
Supporting declared national and international policies and regulations on equality of opportunity	Work in progress.
PROGRESS	
Generating 12 MW of energy from renewable resources.	Work in progress.

RESPONSIBLE GOVERNANCE

Soda Sanayii A.Ş. continuously renews its product portfolio, digitizes its production processes and introduces its employees the qualities of the future to create the company of the future and create value for all of its stakeholders. Acting with the vision of becoming a global company, the company aims to carry out its responsible management practices at international standards and thus continuously increase its shareholder value.

The Corporate Governance Rating of Şişecam, which acts with the awareness that the development of management applications of the companies in line with transparency, fairness, accountability and responsibility is as important as financial performance for stakeholders today, rose to 9.53 in 2018 from 9.48 in 2017. The awards given to Şişecam by the Institutional Investor owned by Euromoney are concrete indicators that a multi-national, multi-stakeholder structure is managed with great success. Soda Sanayii A.Ş., a Şişecam Group company, also adopts Şişecam's progressive and transparent management principles.

In line with its responsible management approach, Soda Sanayii A.Ş. adopts progressive corporate governance practices, respects fair competition, disseminates corporate ethics to all stakeholders and offers employment conditions that are worthy of human dignity.

You can access the details of corporate management policies and applications implemented in Soda Sanayii A.Ş. from the Corporate Governance Principles Compliance Report in the Investor Relations section of the Şişecam corporate website.

BUSINESS ETHICS

Soda Sanayii A.Ş.'s guide to conducting responsible business is "Şişecam Group's Code of Ethics". Launched in 2010 and continuously updated and evaluated based on continuous needs, Code of Ethics has been organized in line with the principles of honesty, transparency, confidentiality, impartiality and compliance with the laws. "Şişecam Group Code of Ethics" is a guide to

the relations of all Soda Sanayii A.Ş employees with customers, suppliers, shareholders and other stakeholders.

"Ethics Committee", which was established in 2014 and reports to the Corporate Governance Committee, has been working in order to ensure compliance with the Code of Ethics in the activities of Soda Sanayii A.Ş., to evaluate misconduct, to disseminate the ethical culture throughout Soda Sanayii A.Ş. and to raise consciousness level and awareness on this issue. Şişecam Group's Code of Ethics also defines the duties and responsibilities of managers and all employees.

Employees can report operations that do not comply with the regulations or the Code of Ethics to the Inspection Committee and to the Internal Audit Unit. An ethics hotline has been launched to allow stakeholders to report their concerns to the Inspection Committee regarding operations which are thought to contradict laws or the company's ethical values. Complaints can also be made via e-mail to etik@sisecam.com.

You can reach detailed information about the Code of Ethics from the Corporate Governance policies tab of the Şişecam Group corporate website.

ANTI-CORRUPTION

Soda Sanayii A.Ş.'s "Anti-Bribery and Anti-Corruption Policy", which clearly demonstrates its commitment and approach to the fight against bribery and corruption, is an integral part of Soda Sanayii A.Ş.'s Code of Ethics. This policy aims to provide necessary information for the prevention of bribery and corruption in all Soda Sanayii A.Ş. activities, and to determine the responsibilities and rules in this regard.

You can reach detailed information about the Anti-Bribery and Anti-Corruption Policy from the Corporate Governance policies tab of the Şişecam Group corporate website.



PRESERVE

Soda Sanayii A.Ş. develops applications that will protect and carry natural resources, biodiversity and product safety to future generations within the framework of “Preserve” mindset.



PRODUCT SAFETY

person*hour
» 1,168
Environmental training provided to Soda Sanayii A.Ş.

person*hour
» 1,110
Environmental training provided to the contractor company employees

Soda Sanayii works in accordance with the environment, health and safety management systems under the “Commitment of Trilateral Responsibility”, which is a voluntary practice conducted by Chemical Manufacturers Association of Turkey.

Soda Sanayii A.Ş. conducts product safety efforts in accordance with international standards. It holds Feed Registration Certificates, American Food and Drug Administration (FDA) Certificate, Halal and Kosher certificates for the products of refined bicarbonate and Oxyvit plant. It also holds ISO 22000 and FSSC Food Safety Management System Certificates and GMP + Process Certificates for the refined bicarbonate product. Oxyvit Kimya holds Verifiable Safety Certificate for Animal Foods and Additives (FAMI-QS). All products are also subject to the Classification Labeling and Packaging (CLP/SEA) Regulations. Supplier companies are also regularly audited to ensure compliance with this standard. In addition, Şişecam Chemicals has chaired the European Soda Ash Producer Association (ESAPA) since 2016.

The Safety Data Sheets (SDS) of products, which are frequently requested by all Soda and Kromsan customers in 2018, were recreated in Turkish and English in accordance with international regulations with an international software program commissioned in the reporting period for the creation of Safety Data Sheets.

REACH

Soda Sanayii A.Ş. fulfills all obligations of REACH Regulation (Registration, Evaluation, Authorization and Restriction of Chemicals). Within the framework of REACH, which is one of the most comprehensive environmental and safety standards of the chemical industry, the REACH registration of Chromium Hydroxy Nitrate product in the tonnage band of 10-100 tons/year and the updating of the tonnage band to 100-1000 tons/year were completed in 2018. Works are underway for the registration of Chromic Acid product under Korean REACH. Safety Data Sheets were created in line with the European and Turkish legislations.

TRY 74,8 Million
The budget allocated for environmental investment and management expenditures at Şişecam Soda Sanayii A.Ş. in 2018

CERTIFICATES AND STANDARDS OWNED

	Country	ISO 9001	ISO 14001	OHSAS 18001	ISO 27001	ISO 50001	ISO 22000	FSSC	HALAL	FDA	FAMIQS	KOSHER
Soda San. A.Ş. Mersin Plant	Turkey	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Soda San. A.Ş.Kromsan Plant	Turkey	✓	✓	✓	✓	✓						
Oxyvit Kimya	Turkey	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Şişecam Soda Lukavac d.o.o.	Bosnia Herzegovina	✓	✓	✓								
Cromital S.p.A.	Italy	✓	✓									

ISO 50001: Energy Management System • ISO 14001: Environmental Management System • OHSAS 18001: Occupational Health and Safety Management System • ISO 9001: Quality Management System • ISO 22000: Food Safety Management System • FSSC: Food Safety Management System • Halal: Halal Food Certificate • FDA: American Food and Drug Administration • FAMIQS: EU Feed Hygiene Certificate • ISO 27001: Information Security Management System • KOSHER: Kosher Food Certificate



NATURAL RESOURCES

Decreasing natural resources significantly affect the balance of the planet as well as the way corporations do business. Sustainability in natural resource use is a business priority in Şişecam Group.

WATER MANAGEMENT

Soda Sanayi A.Ş. works to reduce water consumption. For this purpose, water is recycled and reused. In 2018, 1.97 million cubic meters of water were reused in Soda Sanayii A.Ş. At Soda Sanayii A.Ş., cooling water per ton of soda water is also a meticulously-followed indicator.

In 2018, a new project was initiated in Bosnia and Herzegovina and 3 new relieving tanks were built. In this way, the quality of the wastewater will be increased and the sulfur content in the chimney gas will be reduced. In another project completed in Bosnia, the water used in the cooling of the lime kiln is then used for the hydraulic conveying of electro-filtered ash and slag. In this way, the amount of water consumed is reduced.

Hot liquids such as condensate and steam are used together with various chemicals based on solvent in the cleaning of the machine parts that are contaminated during the maintenance. With the automatic washing system commissioned in Soda and Kromsan, the environmental impacts caused by manual cleaning of machine part and the risk of work accidents are minimized. In addition, it is aimed to recover the materials that have become hazardous waste as a result of not being cleaned by traditional methods.

WASTE MANAGEMENT

Şişecam believes that efficient waste management is the basis of cyclical economics. Recycling, which is an important part of the waste management approach, reduces the amount of waste, and raw material efficiency is ensured by reusing the recovered products in production processes. In 2018, approximately 115,000 tons of sludge were used in the Kromsan plant in the monochromatic furnaces to utilize chromium within the waste sludge.

The oils that did not complete their lives but are contaminated are filtered through the filtration system and reused in maintenance through a project carried out in Kromsan plant. In this way, both resource saving and waste reduction are achieved.

BIODIVERSITY

Biodiversity, which expresses the difference and variability of living things with their complex ecological structures, their interactions with each other and their environment, is one of the main reasons for humanity to reach its current level of development. The plant and animal species creating biodiversity are used in agriculture, pharmacy, medicine, animal husbandry, forestry, fisheries and industrial areas and in the procurement of clean water and air supply. Acting with the awareness for the need of natural resources in its operations, Soda Sanayii A.Ş. develops projects that will contribute to biodiversity in the region where its factories are located.

Tree planting activities of Soda Sanayii A.Ş., which was started in 2006 in Mersin Region, are carried out traditionally every year in order to determine and plant forest areas. In 2018, 13th Tree Planting Festival was held and approximately 1,536 saplings were brought to the nature by the employees, retirees and their families. Thus, the number of trees and saplings planted in 13 years reached to a total of 43,100.



EMPOWER

With its “Empower” approach, Soda Sanayii A.Ş. contributes to the practices implemented by Şişecam Group in order to spread the inclusive corporate culture, become the preferred work place, and support the local communities and the supply chain.





DIVERSITY AND INCLUSION

Soda Sanayii A.Ş. believes that diversity offers different experiences and perspectives to help build a better future. In this respect, it supports the inclusive workplace culture by offering equal opportunities for the participation and development of human resources in business life. Soda Sanayii A.Ş. strives to carry the differences and cultural heritage of global human resources to future generations. Diversity, inclusion and equal opportunity are considered as basis in all applications at both corporate and operational levels.

In line with the “Empower” principle of the Şişecam Sustainability Strategy, Soda Sanayii A.Ş. presents a strong, human-oriented management approach that focuses on empowering all stakeholders, primarily women.

The Diversity and Inclusion Workgroup operates under the Soda Sanayii A.Ş. Sustainability Committee. In this Workgroup, action suggestions are developed in order to improve and facilitate the working conditions of women with the contributions of internal and external stakeholders, to support women’s participation in labor force and career development, to raise awareness and to cooperate with stakeholders.

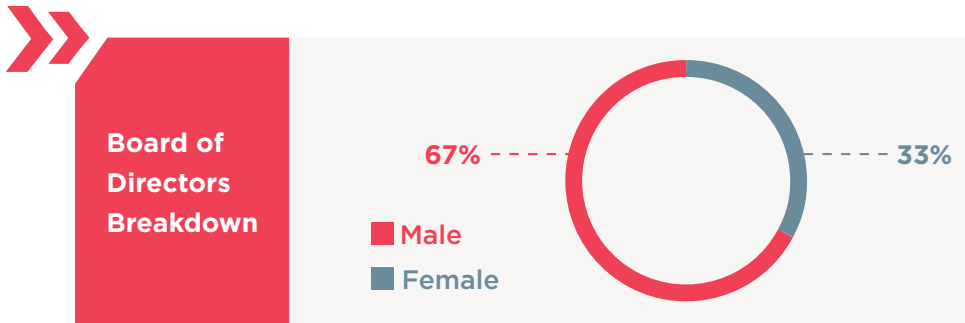
At Soda Sanayii A.Ş., 33% of the Board of Directors is composed of female employees. In 2018, the number of female employees doubled while the number of newly-hired female employees increased by 3.4 times.

Soda Sanayii A.Ş. aims to implement the “Şişecam Group Diversity and Inclusion Guidelines” in line with its goal of supporting and furthering its diversity and inclusion efforts.

With the awareness that equal participation in employment is one of the most decisive factors in the advancement of society, corporate objectives and corporate policy were set in 2018 to support granting opportunities to employees at every business level to fulfill their potential irrespective of biases such as background, age, gender or physical handicaps.

Soda Sanayii A.Ş. strives to increase the employment of disabled people as part of its diversity approach. The work environment is organized to facilitate the working conditions of disabled employees. Thanks to these practices, 107 disabled employees work in the company.

» Soda Sanayii A.Ş. acts within the framework of the Şişecam Group Human Resources Policy, which covers topics such as globalization, equality of opportunity, respect for diversity, inclusion, objectivity and continuous improvement.





TALENT MANAGEMENT

Soda Sanayii A.Ş. aims to be the most preferred workplace and to incorporate in the right talents. It offers its employees a working environment in which innovative practices are implemented and the co-learning culture is dominant. In the human resources processes, an objective, systematic and development-oriented approach is exhibited, employees are provided with talent programs that support their development, and career and performance management practices and development processes are followed.

Actions are taken in line with the career and talent management and performance development systems developed for the entirety of Şişecam Group.

Within the scope of Şişecam Group Career Management System, all employees are offered career development opportunities. Employee expectations and organizational requirements are reviewed every year; talent pool, career maps and backup plans are created accordingly. In the Evaluation and Development Center applications in which white- and blue-collar employees participate, competency analyses are made and development plans are presented.

In 2018, the Şişecam Group Talent Management System was launched in order to attract the right talents, reveal the potentials of the existing talents and raise the leaders of the future. The system, which is an important step of sustainable corporate success, is implemented on a global scale.

Şişecam Group Performance Development System is used to promote sustainable success-oriented performance culture and to support the transformation of personal achievements into corporate success. Within this context, corporate targets are reduced to individual targets and a common goal is established. The Performance Development System is constantly being developed

to achieve human-oriented, fast and reliable results. The system, which works in an integrated manner with Şişecam Group's strategic planning process, is maintained with a technological infrastructure that supports global deployment in a way that enables employees and managers to conduct objective evaluations. Within the scope of the Performance Development System Project, all training and development activities are combined under an "Individual Development Plan" in order to develop the competencies of the employees.

EMPLOYEE DEVELOPMENT

Soda Sanayii A.Ş. believes that enhancing the professional knowledge and skills and supporting and strengthening personal competencies of its employees play a major role in building a successful future. Internal and external training programs are implemented in order to enhance employees' knowledge and skills. The development activities needed by the human resources in the globalized corporate culture of Soda Sanayii A.Ş. are carried out in line with the success-oriented performance culture and constant development mindset.

The development of Soda Sanayii A.Ş. employees is supported by various development programs under the roof of Şişecam Academy.

Şişecam Academy continues to contribute to the goals of Şişecam Group through its efforts to improve human resources competencies and employee loyalty. The Academy develops solutions for the needs of the Group's employees in the areas of technical and professional development, personal development, corporate development and leadership, and constructs schools and programs related to career paths.

»» 2,137,442

person*hour

Soda Sanayii A.Ş.
provided training to its
employees in 2018

With the Academy, employees can participate in conferences, seminars and summits on various subjects at home and abroad, receive foreign language support, and those who wish to do a master's degree can receive corporate support in certain proportions.

An "Orientation Program" is carried out in order to increase the adaptation and contribution of the employees who are newly recruited in Soda Sanayii A.Ş. to the corporation, to maintain a corporate culture and to create experience sharing platforms.

In line with the global adaptation strategy of Soda Sanayii A.Ş., an English Language Development Program is being carried out to enable employees to improve their foreign language skills in English.

Domestic and international training and development programs are implemented in order to develop the international competencies of potential leaders and specialized technical human resources. Employees are encouraged to participate in national and international conferences, panels, fairs and summits.

EMPLOYEE HAPPINESS

Soda Sanayii A.Ş. continuously develops the employees' loyalty, satisfaction with their jobs and positive business climate, and provides a healthy and safe working environment where corporation values are maintained.

Soda Sanayii A.Ş. believes that long-term employment of its employees have an important place in the success of the company. Within this context, a working environment is created that enables employees to contribute to their business processes, and career

and development opportunities are provided to them. 66% of the employees of Soda Sanayii A.Ş. work in the company for 10 years or more.

Şişecam Group carries out the Employee Loyalty and Satisfaction Survey on a regular basis every year by obtaining the views of the employees in order to improve the climate it creates for the employees. Improvement plans are implemented based on the survey results.

Soda Sanayii A.Ş. believes that the participant corporation culture will reinforce its employee happiness. In this sense, employees are encouraged to participate in company decision-making processes; communication platforms are created where they can share their ideas and suggestions, and be aware of developments in the Group and Soda Sanayii A.Ş.

Thanks to Camport, the corporate intranet system, which is a user-friendly, easily accessible and interactive structure, the communication is maintained effectively within Soda Sanayii A.Ş.

The Idea Factory enables the evaluation and rewarding the creative ideas of employees, which add value to Soda Sanayii A.Ş., to increase productivity, develop business climate and corporate culture and adopt innovation.

The successful projects of employees that contribute to the development of products, processes and applications that have a positive impact on the business results are awarded under the Recognition, Appreciation and Rewarding System.

OCCUPATIONAL HEALTH AND SAFETY

Providing a healthy and safe working environment for its employees is one of Soda Sanayii A.Ş.'s major priorities. The presence of a well-established occupational health and safety culture allows the continuous improvement of the working environment, and that enables the employees to act with awareness and consciousness about health and safety. Occupational health and safety issues are managed in Soda Sanayii A.Ş. in cooperation with Şişecam Group Industrial Relations Directorate within the framework of OHS policy issued by Şişecam Group and in compliance with OHSAS 18001 Standard. In addition, cross audits are carried out in other group plants by Soda Sanayii A.Ş. OHS experts. Thus, knowledge and experience are shared with different production fields; in this way, OHS activities are continuously improved. In 2018, Soda Sanayii A.Ş.'s factories, which operate not only in Turkey but also abroad, were also subject to cross audits.

Soda Sanayi A.Ş. has its own OHS unit consisting of occupational safety specialist, workplace physician and health personnel and an OHS Committee in which a representative from the management is a member in each factory. 88 members and 10 employee representatives are working in 27 OHS committees that operate within Soda Sanayii A.Ş. OHS Business Audits are performed by the manager, chiefs and engineers. In the course of the audit, the way to do the work is observed and the hazards, risks and measures are compared and it is checked whether the work is done safely.

Soda Sanayii A.Ş. supports the "zero occupational accidents (LTIFR) by 2022" goal of Şişecam Group with various applications in order to minimize the risks in business processes and to create accident-free workplaces. In 2018, facility managers and related units were informed

about the work hours of occupational safety experts, occupational physicians and other health personnel and reporting of work accident data within the scope of Occupational Health and Safety Law.

Aiming to realize all stages of its production activities in a healthy and safe working environment, Soda Sanayii A.Ş. carried out new projects and studies in 2018 in order to improve the OHS culture. Field observation activities were carried out as part of occupational health and safety at Soda Sanayii A.Ş. and affiliated facilities and factories; efforts were made on legal liabilities and required trainings were provided in accordance with the Occupational Health and Safety Law; the efforts for transitioning to QDMS system were initiated within the scope of tracking the occupational accidents and improvement of processes and the design module was completed. In order to spread the occupational health and safety culture within the company, Tool Box Trainings, OHS Leadership Training, Occupational Health and Safety Painting Competition and OHS Envoys efforts were carried out.

METHOD FOR DOING BUSINESS

Mersin Soda and Kromsan Plants aim to provide its employees with a constantly healthy and safe working environment through improvements. In this context, Method for Doing Business application is implemented in project-based works. With this application, the precautions to be taken for each step before work and the suitability of the tools to be used are checked.

»» ^{person*hour}
25,835
total amount of training
provided to employees

»»

LIFTING PLAN APPLICATION

In Mersin Soda Plant the Lifting Plan application is carried out in order to prevent injury and property damage by ensuring the safe lifting of loads. Safe working methods were specified in the lifting plan, which was developed by the OHS Department by examining the process of lifting heavy tonnage loads. In this context, the persons involved in the lifting operation, the methods of communication, the steps of the work and the safe measures to be taken are specified. For the systematic implementation of the Lifting Plan, trainings and information are provided through the OHS specification. The Lifting Plan is an application that can be used in all enterprises of Şişecam Group by the technical personnel trained on lifting operations.

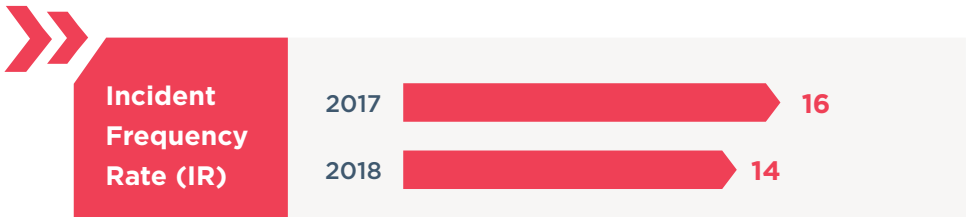
Supporting occupational health and safety culture, reducing occupational accidents and ensuring that every stage of production activity is carried out in a healthy and safe working environment are only possible by raising the awareness of employees. Therefore, Soda Sanayii A.Ş. organizes occupational health and safety trainings for its employees. In Soda Sanayii A.Ş., OHS trainings as well as OHS-themed trainings are organized. In addition, 2 hours of OHS on-site training is provided before they start working in order for them to adopt the same principles and do the business with the same safety approach as Soda Sanayii A.Ş. These trainings are repeated every 6 months.

»»

MODERNIZATION WORKS IN SODA SANAYİİ A.Ş.

Within the scope of occupational safety practices at Soda Sanayii A.Ş., modernization works have been carried out to ensure that the furnace weaving platform and platform access are more secure in line with technological developments. Steps were taken to make the work platform used in the vertical furnace brick weaving compliant with national and international standards within the scope of the works. Thanks to the new system designed to move in an automatic and balanced manner, it was ensured that the transportation safety of the work platform and safety of access onto the platform were increased and occupational accidents involving serious injuries were prevented.

No cases involving fatalities or occupational diseases were encountered in Soda Sanayii A.Ş. in 2018 and as a result of the improvements made, the accident frequency rate dropped by 12.5% compared to 2017.



CORPORATE SOCIAL RESPONSIBILITY

Soda Sanayii A.Ş. aims to create value by contributing to social development in the geographies where it operates. It aims to strengthen local communities and supply chain through corporate social responsibility activities conducted in this direction and to actively participate in social, economic and environmental solutions. Soda Sanayii A.Ş., which accepts the UN Sustainable Development Goals as a guideline, gives priority to vulnerable groups, young people and women while conducting social responsibility activities.

Soda Sanayii A.Ş. carries out social responsibility projects for the economic and social well-being of local people in the regions where it operates and regularly transfers resources to these projects.

PRESERVING THE POPULATION OF KAZANLI SEA TURTLES

Located in Mersin region at the southern coast of Turkey, Kazanlı beach is one of the world's most important nesting area for sea turtles, which are endangered. Kazanlı Sea Turtles Population Protection Project is being carried out by the official institution.

Soda Sanayii A.Ş. continued to support the Project for Preserving the Population of Kazanlı Sea Turtles conducted in that regard also in 2018 by cleaning the breeding areas of turtles. The field cleaning event held in May with the participation of company employees and their families and the lighting needed in the hatching process of the offspring contributed to the protection of nesting areas and endangered turtles.





PROGRESS

Soda Sanayii A.Ş. puts into practice the innovative products and services by focusing on combating climate change, R&D and digitalization with “Progress” mindset.



COMBATING CLIMATE CHANGE

The effect of climate change, one of the most important challenges of today's world that require joint combating, is increasing day by day. In this sense, regardless of scale, all companies have important responsibilities. Soda Sanayii A.Ş. carries on its activities with the awareness of its responsibility to combat climate change and in cooperation with its stakeholders.

In Soda Sanayii A.Ş., projects for the determination and implementation of a roadmap for the sustainable energy supply, renewable energy sources and the efficiency projects that will ensure energy efficiency are implemented. The key energy consumption items are instantaneously monitored and the performance of the processes is improved in the production facilities where Sustainable Energy Measurement and Monitoring System (SEÖİS) is established.

Soda Sanayii A.Ş. constantly reviews the risks and opportunities related to energy and manages its operations accordingly. Management of risks related to climate change is considered as an important priority within Şişecam. In this sense, Soda Sanayii A.Ş. shares its performance in that regard with Şişecam under the Carbon Disclosure Project. In addition to these applications, the carbon reduction goal of Şişecam Group is supported through energy efficiency projects realized in all production facilities.

With the efficiency and improvement projects realized during the reporting period, approximately 58,927 GJ of energy savings and TRY 1,590,486 of financial savings was achieved.



EXAMPLE PRACTICES IN COMBATING CLIMATE CHANGE

Using Solar Tube in Lighting (Kromsan) - Solar tube assembly was performed in the workshops in order to benefit from the sunlight in the lighting. A total of 12 fixtures were assembled and the lighting needs of the workshops were met directly from the sun. Within the scope of the project, 4,709 tons / year CO₂ decrease is expected in the carbon footprint.

Bicycle Use at the Plant Site (Soda and Kromsan Plants) - The use of bicycles in the Soda Sanayii A.Ş. plant area is popularized and nature-friendly transportation facilities are provided. The amount of emission reduction provided with the use of bicycles in the factory has been calculated and it has been determined that 43.5 tons of CO₂ emission reduction is achieved annually.

Compressor Valve Modernization (Soda Plant) - With the modernization of the steam inlet valve and the project for eliminating the low performance due to pressure drops in the old valves, 0,35 ton/h steam savings were achieved with the value assembled in the 5A1 compressor in 2018. The amount of these savings corresponds to TRY 142.128.

» 58.927^{GJ}

The amount of energy saving due to energy efficiency projects

» 1.590.486^{TL}

The amount of financial saving due to energy efficiency projects



R&D AND DIGITALIZATION

Soda Sanayii A.Ş. pays special attention to the Research and Technological Development (R & D) and digitalization studies in order to realize the targets set by Şişecam in line with the “sustainability and excellence” approach from raw material to product at every step.

Soda Sanayii A.Ş.'s R&D activities are carried out in line with the goals of developing the current processes in the production of soda and chromium compounds with low-cost technologies in an environmentally compatible manner, enriching the product portfolio with new high value-added products and increasing the competitiveness through cost-cutting and efficiency-increasing efforts.

Soda Sanayii A.Ş. conducts the R&TD activities in collaboration with the Şişecam Group Science and Technology Center and the regional laboratories within. In addition, Soda Sanayii A.Ş. owns an R&TD center with 21 employees within its boundaries. In the Development Center established in Mersin under the Chemical Development Directorate, projects are being carried out on process design, new product development, leather chemicals, analytical techniques, energy efficiency and environmental protection.

Tuzla Leather Application Laboratory, which is affiliated to the Development and Quality Directorate, continues to work on the application of chromium chemicals on leather. The customer requests coming from domestic and foreign markets are evaluated and product development and improvement studies carried out on leather are examined in practice in the laboratory.

In 2018, analysis of alternative raw material use, analysis methods and process modeling activities were maintained in soda product group. Analysis methods and procedures of soda and chromium product group were reviewed. In the Chromium product group, studies were carried out on process and product quality improvement; laboratory- and pilot-scaled tests were continued to develop new leather chemicals. A new Lean Six Sigma project was initiated for more efficient use of raw materials. The requests related to environment, product and raw materials were examined in a scientific framework. During the reporting period, total R&D budget was realized as TRY 5.879.887.

Soda Sanayii A.Ş. implements digital transformation practices to increase its efficiency performance with the awareness of its competitive and leading role in production. The developments within this context are continuously monitored, the business processes are reviewed and the required applications

implemented.

With the Soda_Web program developed within the scope of the importance attached to digitalization, all factory production processes, important parameters affecting production and energy consumption values can be monitored online. Employees can access the program through their smartphones and access daily, monthly, annual reports and laboratory analyses.

The reports of the studies carried out are transferred to digital media in order to provide information and facilitate accessibility. Simulation studies carried out with Aspen Plus software in order to increase the efficiency and design accuracy of soda production processes, to reduce project delivery times and to ensure process innovation are in progress.

The development of Soda Simulation, designed in order to increase the efficiency and design accuracy of soda production processes, to reduce project delivery times and to ensure process innovation, is in progress.

In the reporting period, the use of WM, which is an SAP warehouse management module, and the integrated barcode system have been implemented at the Soda Material Warehouse, the Kromsan End-product Warehouse. In the warehouse with WM, all activities of the material, from arriving at to departing from the warehouse, can be monitored at the highest level on address basis. A material can be tracked at an address in a warehouse with WM. This minimizes material search times. The errors were minimized by barcode system, which provides automatic identification of materials. Since many material movements are performed by hand terminals, both speed and fiduciary and actual material movements are made instantaneously. Since the counting process in a warehouse with WM can be done on address basis, positive improvements were achieved.

Soda Sanayii A.Ş. pays special attention to the protection of the confidentiality of customer information. In this regard, the most up-to-date, efficient and secure technology infrastructure is utilized on subject basis. Joint confidentiality and information storage issues in business agreement are secured by ISO 27001 Information Security Management System certificate. In this context, ISO 27001 Information Security Management System observation audits were performed at Soda Sanayi A.Ş. Plants and Management Sales Center in the reporting period. Digital and cyber security efforts were continued in 2018; no cases of violation of customer privacy occurred and no complaints were received.



INNOVATIVE PRODUCTS

The products created by Soda Sanayii A.Ş. considering the matters of environment and sustainability in addition to customer expectations aim to increase the created sustainable positive added value. At this point, the feedback gathered from all relevant stakeholders is actively collected, evaluated and implemented in order to take this value created by the products further.

Soda products of Soda Sanayii A.Ş. (Light Soda and Heavy Soda) stand out as inputs that significantly reduces the energy consumption of furnaces in glass production. With the use of soda, the melting temperature is reduced and energy savings of 8-10% are achieved theoretically.

With the responsibility of being the leader in chromium chemicals, Soda Sanayii A.Ş. minimizes the environmental impact of the leather industry with ecol-tan, the tanning product that it offers to its customers in the leather industry. Ecol-tan offers an improved tanning process compared to traditional methods, increasing the

chromium uptake to the levels of 98%, resulting in reduced levels of chrome oxide in the waste water at the levels below 1g/L. In addition, the formation of salt-containing waste whose treatment is a major problem and which causes environmental pollution is prevented, and the environmental impact of the leather tanning process is also reduced.

With the Development of Trivalent Chromium Compounds for Use in Surface Treatments Project activities of chromium chemicals is diversified. The goal is to develop specific chromium chemicals and offer them to customers. As an alternative to the Chromium VI compounds used in surface treatments, the development and production of Chrome III chemicals with lower impact to the environment were accelerated. In this context; Chrome Nitrate, Chromium Chloride, Chromium Hydroxide Nitrate and Chromium Hydroxy Chloride developed through R&TD projects are offered to customers. In addition, researches are being carried out to further increase the added value of these products.

CUSTOMER RELATIONS

Soda Sanayii A.Ş. offers differentiated and special products and services to its customers by evaluating the emerging technological and digital opportunities together with business models. Within this context, actions are developed according to the results of the survey where the satisfaction of the customers is measured. 19 hours of training were provided per employee in Şişecam Academy Sales School during the reporting period.

In Soda Sanayii A.Ş., the feedback from customers is actively evaluated and this feedback is used to develop new products and services. In this context, complaints are evaluated as actively as suggestions. All customer complaints submitted in 2018 were answered and resolved.



KEY STAKEHOLDER GROUPS AND COMMUNICATION PLATFORMS

Stakeholder Group	Attendance Platforms	Attendance Frequency
Analysts	Face-to-face meetings • Workshops • Analyst day	At least four times a year
Employees	Satisfaction survey • Suggestion and idea sharing platforms • Face-to-face meetings • Seniority incentive award • Recognition and reward system	Recurrent
Shareholders	Periodic information reports • Social media	At least twice a year
Public Institutions	Regular reporting • Meetings, forums and conferences • Press releases • One-to-one interviews	Recurrent
Customers	Satisfaction surveys • Social media • Fairs and conferences • Phone and e-mail • Customer visits and meetings	Recurrent
NGOs	Strategic collaborations • Events • Meetings	At least once a month
Suppliers	Daily workflow • Face-to-face meetings • E-mail communication	Recurrent
Universities	Conferences • Joint studies • Internship programs	Annual
Investors	Investor presentations • Face-to-face meetings • Telephone/teleconferencing and e-mail communication • Workshops • Roadshows • Webcast teleconferences	At least twice a year
Media	Press conferences • Press releases • Conferences	At least once a month

CORPORATE MEMBERSHIPS

Mediterranean Exporters' Union	Mersin Chamber of Commerce and Industry	Chemical Manufacturers' Association of Turkey
European Soda Ash Manufacturers' Association	Quality Association of Turkey	International Chrome Development Association

PERFORMANCE INDICATORS

ECONOMIC PERFORMANCE DISCLOSURES	
Total revenue (TRY)	3,430,360
Dividend paid (TRY)	323,000
Tax paid (TRY)	251,923
Social donations (TRY)	280,472
SOCIAL PERFORMANCE DISCLOSURES	
Employee Demographics	2018
Total Workforce (Number)	
Female	129
Male	1,726
Total Employees by Contract Type (Number)	
Permanent	
Female	128
Male	1,682
Temporary	
Female	1
Male	44
Total Employees by Category (Number)	
Blue Collar	
Female	18
Male	1,164
White Collar	
Female	111
Male	562
Total Employees by Employment Type (Number)	
Full-time	
Female	129
Male	1,726
Part-time	
Female	0
Male	0
Total Employees by Education Level (Number)	
Primary School	66
High School	946
University and above	843

Employee Demographics	2018
Total Employees by Age (Number)	
Below 30	187
30-50	1,377
50+	291
Number of contractor employees	
Full-time	1,113
Part-time	24
Female	45
Male	1,092
Tenure	
Female employees 0-5 years	36
Female employees 5-10 years	21
Female employees 10+ years	72
Male employees 0-5 years	323
Male employees 5-10 years	250
Male employees 10+ years	1,153
Top Management Structure (Number)	
By Gender	
Female	2
Male	14
By Age Group	
30-50	9
50+	7
By Nationality	
Turkish Citizen	14
Expat	2
Board Structure (Number)	
Female	2
Male	4
Mid-Level Management Structure (Number)	
By Gender	
Female	19
Male	100
By Age Group	
Below 30	1
30-50	96
50+	22
By Nationality	
Turkish Citizen	119
Expat	0

Turn Over	2018
New Hires (Number)	
By Gender	
Female	17
Male	101
By Age Group	
Below 30	65
30-50	53
50+	0
Employees Recently Left (Number)	
By Gender	
Female	3
Male	78
By Age Group	
Below 30	10
30-50	28
50+	43
Social Inclusion and Diversity	2018
Employees on Parental Leave	
Female	3
Male	60
Employees Returned to Work after Parental Leave	
Female	2
Male	63
Workforce Covered by Collective Agreement (Number)	
Female	12
Male	789
Cases of Discrimination (number)	0
Disabled Employees	
Female	4
Male	103

Employee Development	2018
Employee Trainings (personxhour)	
<i>Blue-collar female</i>	16
<i>White-collar female</i>	4,552
<i>Blue-collar male</i>	17,071
<i>White-collar male</i>	19,214
<i>Female</i>	4,568
<i>Male</i>	36,285
Contractor Trainings* (person*hour)	
<i>Female</i>	23
<i>Male</i>	187
Şişecam Academy Training (hour)	35,705
Employees under Performance Review	
<i>Female</i>	19
<i>Male</i>	142
<i>Blue -collar</i>	0
<i>White-collar</i>	48
Environmental Trainings	2018
Environmental Trainings (personxhour)	
<i>Direct employees</i>	1,168
<i>Contractors</i>	1,110
Research and Development	2018
R&D Budget (Thousand TRY)	5,880
R&D Employees	21
Supply Chain Management	2018
Active suppliers	3,522
Local suppliers	3,045
Occupational Health and Safety	2018
Accident severity rate	2,373
Accident frequency rate	14
Occupational Health and safety trainings (personxhour)	25,835
Number of Occupational Health and Safety Committees	27
Number of Occupational Health and Safety Committee members	88
Number of employee representatives in Occupational Health and Safety Committees	10

ENVIRONMENTAL PERFORMANCE DISCLOSURES	2018
Net production (ton)	2,120,116
Natural Resources	
Raw material used (ton)	9,061,411
Recycled / recovered raw materials consumed (ton)	114,880
Total water withdrawal by source (m³)	
<i>Municipality</i>	102,359
<i>Surface</i>	17,687,580
<i>Underground</i>	9,603,527
<i>Other</i>	3,595,547
<i>Total</i>	30,989,013
Recovered or reused water (m³)	1,973,223
Water intensity (m³/ton)	14.62
Total Wastewater Discharge by Target Environment (m³)	
<i>Natural Receiving Environment</i>	14,747,113
<i>Sewer</i>	27,715
<i>Total</i>	14,774,828
Cooling water per ton soda (m³)	
<i>Mersin Soda Plant</i>	15.38
<i>Bosna Lukavac Plant</i>	13.9
<i>Kromsan Plant</i>	3.65
Hazardous Waste by Disposal Method (ton)	
<i>Energy Recovery</i>	77
<i>Recovery</i>	517
<i>Incineration</i>	1,057
<i>Landfill</i>	242
<i>Total</i>	1,894
Non-Hazardous Waste by Disposal Method (ton)	
<i>Energy Recovery</i>	2,890
<i>Recovery</i>	1,804
<i>Incineration</i>	6
<i>Landfill</i>	1,473,364
<i>Other</i>	1,394
<i>Total</i>	1,479.457
Total amount of waste (ton)	1,481,249

			2018
Waste intensity (ton/ton)			0.70
Amount of packaging material (ton)			17,800
Packaging waste recovery rate* (%)			54
Combating Climate Change		2017	2018
Energy consumption (GJ)			
	Natural gas	15,258,004	13,913,362
	Electricity	454,776	542.254
	LPG	64	65
	Steamcoal/Antrasit/Coal	17,314,382	18,365,478
	Other	596,786	0
	Total	33,624,011	32,821,159
Energy saving (GJ)			58,927
Energy saving (TRY)			1,590,486
Scope1 Emissions (ton)			1,969,533
Scope2 Emissions (ton)			57,463
CO ₂ intensity (ton CO ₂ /total production-ton)			2.93
Nox ve Sox Emissions (kg)			1,101,348
Management Approach			
Environmental Expenditures (TRY)			
	Environmental Management Expenditures		64,616,199
	Environmental Investment Expenditures		10,157,929
	Total		74,774,128
Saplings planted			1,536

* Domestic Plants.

GRI CONTENT INDEX



Disclosures		Descriptions and Page Numbers
GRI 101: Foundation 2016		
GRI 102: General Disclosures 2016		
Corporate Profile		
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102-3		Contact, p.35
102-4		About Şişecam, p.5
102-5		http://www.sisecamkimyasallar.com/en/investor-relations-soda-sanayi-as/corporate-identity-and-management/shareholder-structure
102-6		About Şişecam, p.5
102-7		About Şişecam, p.5
102-8		Social Performance Indicators, p.32
102-9		Supply chain is shaped by necessities of our products and services.
102-10		About Şişecam, p.5
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102-12		Collaborations and Stakeholder Engagement, p.14
102-13		Corporate Memberships, p.31

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Strategy		
102-14		Message from the General Manager, p.4
102-15		Şişecam Sustainability Strategy: Care For Next p.9
Ethics and Integrity		
102-16		Business Ethics, p.16
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Governance		
102-18		Sustainability Management, p.13
102-19		Sustainability Management, p.13
102-20		Sustainability Management, p.13
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102-29		Sustainability Management, p.13
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Stakeholder Engagement		
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Disclosures		Descriptions and Page Numbers
102-41		Social Performance Indicators, p.32
102-42		Collaborations and Stakeholder Engagement p.14
102-43		Collaborations and Stakeholder Engagement p.14
102-44		Collaborations and Stakeholder Engagement p.14
Reporting Practices		
102-45		About the Report, p.2
102-46		About the Report, p.2
102-47		Şişecam Sustainability Strategy: Care For Next p.9
102-48		No restatements of information
102-49		About the Report, p.2; Şişecam Sustainability Strategy: Care For Next, p.19
102-50		About the Report, p.2
102-51		http://www.sisecamkimyasallar.com/en/sustainability/sustainability-reports
102-52		Annual reporting
102-53		Contact, p.35
102-54		About the Report, p.2
102-55		About the Report, p.2
102-56		No external assurance

Material Issues		
Standards	Disclosures	Descriptions and Page Numbers
Combating Climate Change		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Şişecam Sustainability Strategy: Care For Next p.9; Combating Climate Change p.28
	103-2 The management approach and its components	Combating Climate Change, p.28
	103-3 Evaluation of the management approach	Combating Climate Change, p.28
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Environmental Performance Indicators, p.33
	302-3 Energy intensity	Environmental Performance Indicators, p.33
	305-1 Direct (Scope1) GHG emissions	Environmental Performance Indicators, p.33
GRI 305: Emissions 2016	305-2 Energy indirect (Scope2) GHG emissions	Environmental Performance Indicators, p.33
	305-4 GHG emissions intensity	Environmental Performance Indicators, p.33
	305-5 Reduction of GHG emissions	Environmental Performance Indicators, p.33
Natural Resources Use		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Şişecam Sustainability Strategy: Care For Next p.9; Natural Resources, p.19
	103-2 The management approach and its components	Natural Resources, p.19
	103-3 Evaluation of the management approach	Natural Resources, p.19
GRI 303: Water 2016	303-1 Water withdrawal by source	Environmental Performance Indicators, p.33
	303-3 Water recycled and reused	Environmental Performance Indicators, p.33
GRI 306: Effluents and Waste 2016	306-1 Water discharge by quality and destination	Environmental Performance Indicators, p.33
	306-2 Waste by type and disposal method	Environmental Performance Indicators, p.33
Diversity and Inclusion		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Şişecam Sustainability Strategy: Care For Next p.9; Diversity and Inclusion, p.21
	103-2 The management approach and its components	Diversity and Inclusion, p.21
	103-3 Evaluation of the management approach	Diversity and Inclusion, p.21
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Social Performance Indicators, pp.32-33
	401-3 Parental leave	Social Performance Indicators, pp.32-33
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	Social Performance Indicators, pp.32-33
Occupational Health and Safety		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Şişecam Sustainability Strategy: Care For Next p.9; Occupational Health and Safety, pp.24-25
	103-2 The management approach and its components	Occupational Health and Safety, pp.24-25
	103-3 Evaluation of the management approach	Occupational Health and Safety, pp.24-25
GRI 403: Occupational Health and Safety 2016	403-1 Workers representation in formal joint management-worker health and safety committees	Social Performance Indicators, pp.32-33
	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Occupational Health and Safety, pp.24-25 Social Performance Indicators, pp.32-33
Talent Management		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Şişecam Sustainability Strategy: Care For Next p.9; Talent Management, p.22
	103-2 The management approach and its components	Talent Management, p.22
	103-3 Evaluation of the management approach	Talent Management, p.22

Material Issues		
Standards	Disclosures	Descriptions and Page Numbers
GRI 202: Market Presence 2016	202-2 Proportion of senior management hired from the local community	Social Performance Indicators, pp.32-33
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Social Performance Indicators, pp.32-33
	404-1 Average hours of training per year per employee	Social Performance Indicators, pp.32-33
GRI 404: Training and Education 2016	404-2 Programs for upgrading employee skills and transition assistance programs	Employee Development, p.22
	404-3 Percentage of employees receiving regular performance and career development reviews	Employee Development, p.22
Product Responsibility		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Şişecam Sustainability Strategy: Care For Next p.9; Product Responsibility, p.18
	103-2 The management approach and its components	Product Responsibility, p.18
	103-3 Evaluation of the management approach	Product Responsibility, p.18
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Product Responsibility, p.18
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	GRI Content Index There are no no non-compliance cases regarding health and safety impacts of products in reporting period.
GRI 417: Marketing and Labeling 2016	417-1 Requirements for product and service information and labeling	Product Responsibility, p.18
	417-2 Incidents of non-compliance concerning product and service information and labeling	GRI Content Index: There are no non-compliance cases about product labelling in the reporting period.
GRI 419: Socio-economic Compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	GRI Content Index: No legal fines were paid for non-compliance to social and economic regulations in the reporting period
Contribution to Social Development		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Şişecam Sustainability Strategy: Care For Next p.9; Corporate Social Responsibility, p.26
	103-2 The management approach and its components	Corporate Social Responsibility, p.26
	103-3 Evaluation of the management approach	Corporate Social Responsibility, p.26
Research&Development and Digitalization		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Şişecam Sustainability Strategy: Care For Next p.9; Research&Development and Digitalization, pp.29
	103-2 The management approach and its components	Research&Development and Digitalization, p.29
	103-3 Evaluation of the management approach	Research&Development and Digitalization, p.29
Innovative Products		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its boundary	Şişecam Sustainability Strategy: Care For Next p.9; Innovative Products, p.30
	103-2 The management approach and its components	Innovative Products, p.30
	103-3 Evaluation of the management approach	Innovative Products, p.30

For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report.

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