

2021 Customer Bulletin

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Our General Manager Dr. Abdullah Gayret's Message

As GCA, we continually build our growth target on a sustainable ecosystem. In this direction, we constantly keep ourselves up to date by preparing research about our industry in a way that will shed light on our business.

With the positive light shown by the industry and trends, we ended our G2 Furnace investment as of February 20, 2021, which had started just before the pandemic and initiated production in our new production lines.

We plan to take the success we gained by exporting to more than 30 countries in 2020 even further by doubling our production capacity with our new furnace investment.

With our more than 150 new employees, we will continue our devoted efforts to meet both national and global glass packaging needs without slowing down with our 500 staff.

On the other hand, we are increasingly encountering terms such as climate change, greenhouse effect, global warming and carbon emissions. In the light of current national and international developments, we see that these terms take the existing social and economic orders differently. With the European Green Deal (EU Green Deal) on December 11, 2019, the roadmap which aims to reorganize the EU's previous commitments more broadly and effectively, was brought to the agenda again. We believe that climate change and sustainability are the two main issues that need to be worked on to realize the mega change in the environment. The growth visions of the companies should be in line with the sensitive use of the resources they use. Because we foresee that business models that will increase material efficiency in the supply chain with the green agreement, reducing production costs and increasing competitiveness will be more reflected in the financial statements.

We became one of the supporters of the Future Furnace project, which we believe will serve as an essential milestone in the glass packaging industry's decarbonization journey in 2020, with the cap of membership to the European Glass Container Manufacturers Federation (FEVE). The goal of the project; the furnace which will replace the existing fossil fuel energy sources, will reduce the total CO₂ emissions in glass production by 50%.

GCA also came together with other glass packaging industry players under the leadership of FEVE, for the glass packaging industry hallmark project to meet the expectations of businesses and individuals on sustainability. While working collectively as global manufacturers for a more sustainable future, we also support the Glass Hallmark project to remind consumers worldwide what they love about glass and the value of glass to make a sustainable future a reality.

Dr. Abdullah GAYRET

GCA General Manager

FEVE Glass Hallmark Project (Source: FEVE.org)

A New Symbol of Sustainability from the Glass Packaging Industry

Launching a new symbol of sustainability, the glass packaging industry invites brands to join forces for humanity and our planet. The sign, designed under the European Union Glass Container Manufacturers Association (FEVE) leadership, where GCA represents Türkiye, will serve as a visual tool to better convey the health and environmental sustainability features of glass to consumers.

Approximately 250 participants, consisting of the European glass industry representatives, took part in the online event organized as part of the European Waste Reduction Week. While the participants primarily included industry representatives and opinion leaders, press and media teams were also present. Arnaud Warusfel, Packaging Development Manager of plant-based food supplier company Bonduelle, Insites Consulting researcher Simona Salcudenu and Eyeka Creative Crowdsourcing jointly announced the launch of the new icon.

Developed jointly by the designers and consumers who voted for the final logo, the sign represents the philosophy of sustainability and their commitment: to use resources wisely in an endless cycle, to recycle whenever possible, to protect and preserve the quality of the product and the health of the people who use the product, and to create and choose a sustainable future.

FEVE President Michel Giannuzzi noted the importance of making the new hallmark: “This symbol marks the first milestone in our journey of working with customers and brands to deliver packaging solutions that respond to the growing demand for sustainability from consumers. Glass is already a success story in both sustainability and health, and we want to remind the world what they love about glass-packaged products. Our ultimate goal is to enable consumers in Europe to see this new symbol on all glass-packaged products on the shelves – be it food in jars, beverages or olive oil – and convey to consumers that glass packaging is sustainable.

GCA General Manager Dr. Abdullah Gayret used the following statements regarding the use of the symbol: “Consumers are becoming more and more careful about brands fulfilling their duties for the environment. The glass sign developed in this direction provides an opportunity for brands to demonstrate their commitment to sustainability. As GCA, we invite all our domestic and international business partners to join the glass hallmark initiative for the health of humanity and the planet.”

GCA's Unique Design Capabilities: Design Department

Design is the art of imagining, shaping, and turning something into reality. Lines are visual values consisting of direction, texture, proportion and colour. Design, on the one hand, defines the problem, collects information, makes inventions, and on the other hand, by applying the solutions it produces, it reveals tangible results to create the ideal.

So why is design important?

Designers work to create a better world by being the creator and shaper of the products we see around us and the comfort that makes our lives easier.

For GCA, the designer's strength is not only making beneficial contributions to the environment with a successful design but also having the ability to shape the future of the world with the features of its design. From this point of view, the design and the designer who reveals the design gains tremendous importance.

Being aware of these facts, GCA is on the way to its new goals with award-winning unique designs that are innovative in glass packaging production, support the functions of the product and provide the product with the value it deserves creatively, in the light of Gürok Holding's glass production experience of more than 25 years.

It should be highlighted that every product needs packaging that will complement itself, and only then can it genuinely complete itself.

The diversity and intensity of competition in food production have brought the necessity for packaging manufacturers to keep up with this competition. GCA is aware that while presenting its products, being healthy and high quality as well as being aesthetic will create significant advantages. For this reason, it has a large and competent team that has been structured with the idea that products can complement themselves with creative designs that are compatible with their content and qualities and reveal all the characteristic features of the product to be packaged. This special Design Department crowns the original projects it produces with many prestigious awards it receives every year, which it sees as an essential source of motivation. Our team continues to add domestic and foreign leading brands to its portfolio day by day in the light of GCA's years of production experience.

Where is the World Food and Beverage Market Heading?

A sustainable and reliable supply of food, which is indispensable for people, is crucial for the health, future and independence of societies. The development of food supply by considering the factors affecting demand is an essential factor in industrial growth today.

The food and beverage industries are focused on doing its part in ensuring Türkiye's sustainable and comprehensive growth. According to TUIK's food and beverage import-export data; the industry registered approximately \$7.6 billion surplus value in 2019 (TURKSTAT, ISIC Rev.4).

The number one agenda item from the beginning of 2020 has been the coronavirus epidemic, which has affected the whole world. One of the first concerns experienced with the beginning of the pandemic in our country was whether there would be problems in reaching sufficient and nutritious food. However, in the following days, this concern disappeared with our solid agriculture, food industry and packaging industry infrastructure and no problems were experienced in terms of food security. Our food industry establishments were able to obtain glass packaging they needed whenever they wished and continued production.

The food industry and global retail has grown economically in the last 10 years and has come to a position that affects our lives more and more.

Population growth, global climate changes, decreases in production and increasing demand due to the relative welfare increase in some countries (such as China, India), on the other hand, are suppressed by the decrease in agricultural areas and the production of farm products for biofuel purposes, and food price increase. The world's leading multinational companies invest in agri-food products by renting millions of hectares of agricultural land in African, Latin American and Southeast Asian countries. In fact, China, India and the Gulf Countries are trying to guarantee the long-term food security of their people by renting agricultural lands in countries such as Pakistan, Sudan, Vietnam, Cambodia and Myanmar. In summary, while it is thought that the struggle between countries in the 21st century will be over energy resources such as oil and mine, the issue of healthy food supply should also be taken into account.

Covid-19 Vaccine: Current General Information on Vaccines

In the current market scenario, vaccines have become the need of the day as COVID-19 continues to spread around the world at different stages. The glass vaccine bottles (vials) used in ancient and modern times are borosilicate or coated soda-lime glass bottles that are increasingly used by all vaccine manufacturers globally.

Private and public sectors can increase investment in R&D and manufacturing related to pandemics and other infectious diseases. For instance, the U.S. biodefense agency, Pfizer and BARDA invested approximately US\$1 billion in vaccine development in 2020 and in manufacturing facility construction before trials even started.

Moreover, global events such as COVID-19 have prompted CDMO to focus on the rapid development of a vaccine to reduce the spread of the virus. Then, 35 labs were notified by the FDA to develop COVID-19 tests under EUA mandate. Many companies collaborate, partner, expand and jointly advance in vaccine development. For example, in March 2020, Univercells

began manufacturing its cell and gene therapy product, Exothera, in a renovated 160,000-square-foot facility. Such expertise could play an essential role in accelerating the market entry of a new vaccine for coronavirus and increasing sales of vaccine vials and ampoules.

China-based pharmaceutical company Sinopharm launched a Phase III clinical trial for a COVID-19 vaccine candidate in Abu Dhabi, UAE, in July 2020. The candidate was said to be the world's first inactivated vaccine to enter a Phase III trial. This trial was run by Sinopharm's China National Biotech Group (CNBG) in collaboration with the Abu Dhabi Government and Abu Dhabi-based artificial intelligence company G42 Healthcare. This vaccine successfully completed Phase III tests and was launched under the name Sinovac.

In December 2020, the U.K. became the first country in the world to approve the Pfizer/BioNTech vaccine. The Pfizer/BioNTech vaccine requires two vaccinations several weeks apart for complete immunity, which means that an initial order of 40 million doses is sufficient to vaccinate 20 million people. Also, the U.K. Government ordered 457 million doses of various COVID-19 vaccines in April 2021, including 100 million doses of AstraZeneca and Valneva vaccines. As a result, the production capacity of the world's leading vaccine bottle and ampoule players has been increased.

As of June 10, the total number of vaccinations in Türkiye was approximately 50 million and continuously rising.

Logistics management of cold chain materials such as a vaccine, antiserum, syringe and transport container used in preventive health services in Türkiye is carried out by the Vaccine/Antiserum Logistics Unit of the Turkish Ministry of Health, General Directorate of Public Health, Vaccine-Preventable Diseases Department.

The General Directorate of Public Health has cold storage of 35,000 m³ in Ankara. Approximately 80 million vaccines and antisera are stored, distributed and recirculated annually. There are 8 trucks, and 2 trucks arranged refrigerated, with cooling as well as heating (minus degrees in winter).

As of the end of 2007, there is at least one vaccine depot in each province. As of 2020, there are more than 360 cold storage warehouses all over Türkiye.

Measures Taken Within the Scope of Occupational Safety in GCA

As GCA, we provide field training to our employees in addition to general Occupational Safety (OHS) training, thereby accelerating employment-employee adaptation and reducing the possibility of accidents that our new personnel may encounter.

The OHS process is integrated with the ISO 9001 system and is defined as the measures that prevent risks at the source due to work accidents and near-miss incidents and root cause analysis.

To minimize the risks for our employees, CE certified personal protective equipment, which is put into use in the field, is tested by the technician (expert) staff and their opinions are taken before active use. In this way, besides the protection of the equipment and its compatibility with the work, the work conditions comfort is also taken into consideration.

To minimize psychological and physical risk factors in terms of OHS, a suggestion and complaint procedure, which does not require any personal information, has been established and used regularly so that our employees can communicate their suggestions and complaints transparently.

TSE Covid-19 Safe Production Certificate: The suitability of conditions of our employees and production site, the precautions are taken by our company were examined closely during the pandemic period, so that we have been producing your packaging materials safely since the beginning of 2020.

Ethical Procedures at GCA (Gender Equality)

Sustainable Development Goals (SDGs), a universal call to action, aim to eradicate poverty, protect our planet, and ensure that all people live in peace and prosperity. As GCA, our work focuses on Sustainable Development Goals, especially on Gender Equality, Responsible Production and Consumption and Life under Water.

According to the results of the social innovation review conducted by Stanford University, it is stated that it will take 257 years to reach economic gender equality. As GCA, we try to give equal chances to all potential candidates, male or female, with our policies and practices in our company and to support our female employees to advance in their careers with equal rights. We will continue to work on this issue and continue to share updates with you.

In addition, within the scope of Gender Equality, we contribute to the Business Against Domestic Violence Project at Gürok Holding level with the contributions of Sabancı University and Tüsiad. The Business Against Domestic Violence (BADV) Project was initiated in 2013 by Sabancı University Corporate Governance Forum to establish support mechanisms in the workplace against the violence that employees are exposed to in close relationships and to reduce domestic violence by using the managerial and organizational skills of the business world. Within the scope of the project, company applications started as of 2016. It covers the support and monitoring of voluntary companies like ours, committed to creating a company policy on domestic violence using a pilot application guide as an 'implementing company' throughout the process.

For a Sustainable Future: World Ocean Day

The campaign, which we have supported since 2018 to draw attention to the pollution in the seas and oceans' depths and increase the awareness of consumers, is also worth remembering on June 8, World Oceans Day.

As a glass packaging manufacturer that cares about environmentally friendly production, GCA draws attention to nature and sustainability. GCA, which has been involved in many projects to protect the environment and raise awareness of consumers, has supported the Endless Ocean campaign on behalf of Türkiye in recent years, which was carried out within the scope of the Friends of Glass platform of the European Glass Container Manufacturers Federation (FEVE).

Although we continue with different campaigns within the scope of sustainability with FEVE, as GCA, we continue to increase awareness to keep the oceans clean.

Glass is environmentally friendly!

Pollution of oceans and seas, which is one of the critical social and environmental problems, is vital for humanity. Our efforts to raise awareness on the use and recycling of glass packaging continue by raising awareness about the impact of people's choices and consumption habits in their daily lives on the environment.

As we know, glass is a 100% and infinitely recyclable packaging material. It does not interact with food and beverages. It doesn't interact with any chemical interaction and it protects health. Environment and recycling are always essential issues on our agenda.

As GCA, we organized training on "Environment and Recycling" for all our company employees in our Kütahya and Istanbul facilities in cooperation with the Environmental Protection and Packaging Waste Recycling Foundation (ÇEVKO) in 2017 and 2018.

The benefits of recycling are important to our world and oceans; thus our natural resources are protected, energy is saved, the economy is boosted, and waste is reduced. With all this, we would be making a significant investment in our future.

Glass is environmentally friendly! Glass is obtained from natural materials; its primary raw material is sand and can be recycled into the same product endlessly.

The Period We Stay at Home: Our Changing Sports Activities

With the pandemic we are in, we spend more time in our homes and change our habits and preferences. Gyms, which are frequently visited for a healthy life, have mostly been replaced by our homes and open air.

According to the research conducted by a global agency, Adcolony, it is a fact that priorities have changed drastically, especially compared to December 2019.

Searching for new training techniques around the world increased by 9% during the pandemic period, while applications that track meals increased by 7%. At the beginning of the year, only half of the users said that they used their mobile devices for sports and fitness, while this rate increased to 75% with the pandemic.

During the stay at home, sports applications appear as the most practical solution. 38% of the participants in the study stated that they used sports and nutrition practices more after the pandemic. 22% state that they have downloaded new applications on health and nutrition. The rate of those who do sports while watching movies and TV series is 21%. While 54% of users say that they follow the exercises on their mobile devices, the rate of those who follow them with smartwatches is 26%.

Introducing Darüşşafaka Society

Darüşşafaka, which means “the nest of compassion”, entrusts our talented children from their families at the age of ten, whose father or mother has passed away and who doesn’t have sufficient financial means. The Society offers these children the opportunity to receive education at international standards and raises them as leaders who have critical thinking capabilities, who question status quo, who are self-confident and aware of their responsibilities towards society and their communities.

Today, nearly 1,000 students from all over our country - selected through an exam - are studying at Darüşşafaka Educational Institutions in Maslak, Istanbul with a full scholarship, on boarding and private education for eight years from the 1st grade of secondary school until they graduate from high school. The Society continues to provide scholarships to its graduates who are granted with a place within national universities.

As GCA, we are pleased to support Darüşşafaka Society in reaching more children in need by helping to increase awareness. We continue to work on how to collaborate with the organization we supported in announcing the entrance exam on May 30 2021. We aim to continue sharing updated news with you.

Three Cybersecurity Issues in 2021

Although the positive aspects of our rapidly digitizing lives are predominant, cyber attacks, the dark side of digitalization, are getting more severe day by day.

Cyber-attacks increased by 400% in 2020 compared to 2019. In 2021, it is predicted that this rate will increase exponentially. In other words, it can be said that there will be total damage of 6 trillion dollars.

So what are the primary cybersecurity issues?

I. Deepfake

The first security threat to come to the fore is expected to be the "Deepfake" attack, which accounts for the most-watched videos on YouTube to date. Deepfake is a type of media in which the person in an image and video is replaced with the image of another person using artificial neural networks. It is on the agenda that this technology will be used in 2021 for entertainment purposes or in advertising videos to prevent companies and marketing departments from doing business and damage their reputation. It is also said that with deepfake technology, applications that harm reputation can be put into use.

ii. Blockchain

Any attack on this system, which ensures the transfer of money and the health of exports in the digital world, may cause global trade chaos. For example, Bitcoin, one of the most prominent uses of Blockchain, was to replace the banking process Swift technology, which provides international money transfer, but today it has gone far beyond that. Blockchain provides a continuous recording of transactions in a network. The system is similar to a database but uses a decentralized ledger instead of the traditional end-to-end, allowing each participant in the network to have their own copy of the log and see all transactions. Each block is protected by an encrypted reference associated with the previous block. Therefore, it is challenging to attack or hack the system. For all these reasons, Blockchain is also bringing a security revolution to the world.

iii. Ransomware

One of the oldest and most effective methods in cybersecurity, ransomware and e-mail hijacking is a type of attack that ends when hackers get their intended money. At the same time, it is victimization that many people and companies are exposed to. This type of attack will continue to increase its impact in 2021. If companies and individuals do not take the necessary security measures against this attack, they will be helpless against the new methods of hackers. One way to prevent and eliminate these attacks is to seek help from companies working on cybersecurity.

Recycling Heroes: Episode 1

Our first guest in our "*Recycling Heroes*" series, which we launch with this issue, is Method Specialist Engineer Başak Dik at GCA.

I. Which products do you recycle in your home?

I take great care in recycling paper (this includes the centre rolls of toilet paper and paper towels), metal (beverage cans), plastic (OPPs used to package food, plastic cans/containers), and especially glass. In addition to recycling the products we are accustomed to, I also collect batteries that pose toxic hazards for the environment to be thrown into battery recycling waste bins. Every few days, when I take the recycling waste to the area reserved for collection, I always have the following thought in my mind: "If I had thrown away all the packaging materials, so many products that could have been saved would have been wasted, what a waste."

ii. What do you think about recycling awareness?

My recycling consciousness actually comes from childhood. As a family, we separated our garbage as qualified waste and household waste for as long as I can remember. While I was living in the lodgings of METU due to my mother's job, we were trying to support the "Recovery for Scholarship" campaign with household waste at that time. Within the scope of this campaign, scholarships were provided to students in need with the income obtained from the recycling waste collection banks in METU. I guess it's a habit that emerged with the logic of helping someone else instead of going to waste. I have been paying attention to this issue since I started living separately from my family. At this point, I think that living in Eskişehir is also advantageous because there is a municipality understanding that cares about recycling. Unfortunately, this understanding is not widespread in most cities. People are having difficulty accessing recycling bins.

iii. What would you like to say about recycling awareness in Türkiye?

Unfortunately, I think we are a bit behind in this regard. As a society, we need more awareness. For example, it is necessary to wash the cheese or yoghurt box before recycling, but I observe that the number of people who know this is really low. I guess it has to do with not being used to it; the recycling issue is growing in people's eyes. In fact, we can reduce our carbon footprint with straightforward actions. It may be a very cliché statement, but I would like to mention it again because I believe it is true. I think that eliminating the problem at its source will prevent many issues that may arise afterwards. As a simple example, If we bring our own mug from home instead of paper cups at the office, we will prevent the use of 3 drinks per day x 2 (because many of our colleagues get burned with a single carton cup) x 20 = 120 paper cups per month. Thus, we prevent many labour and expense items such as transporting paper cups to the recycling site, sorting them, reprocessing them into a new product. Before I started

working in the glass packaging industry, I once again understood the importance of recycling glass, especially when I learned that the temperature required with the use of recycled glass in glass production (we call it cullet) is lower than the temperature required to melt only raw materials. Considering that the temperature needed for the melting of the glass is above 1000 °C, it is not difficult to foresee the high level of contribution of this reduction in energy need.

iv. Are you aware of the situation in other countries?

Especially Northern European countries are far ahead in this regard. You may have read that Sweden started to import waste after using its own waste for energy production with maximum efficiency. In addition, they established the world's first second-hand shopping centre. Although the use of second-hand goods is every day in America and Europe, this is not a situation we are used to in our country. I try to apply it as much as possible in my own life; When I buy something new, I first do market research to see if I can buy it second hand. As a society, I think we are a little distant from this issue, but buying second-hand does not necessarily mean buying a used and obsolete product. Some products are used very few times and sometimes even unopened, that people no longer need, give up or come as gifts but want to get rid of, and I think that it should be evaluated when there is a possibility to buy a product that can perform the same function as new at a much more affordable price.