ENVIRONMENTAL STATEMENT 2020

EMAS Environmental Statement of Rich. KLINGER Dichtungstechnik – Complete edition for the period 2020

An Open Day – Come On In!

At an Open Day, organisations grant interested visitors access to company areas where normally access is not permitted. With this Environmental Statement, we wish to grant you insights on and access to many environmentally-relevant areas of our company. So, please come on in, take a look around and learn more about our contributions in the areas environment and sustainability.

When visiting us on the occasion of this Open Day – which we call the Environmental Statement – you will get an insight into our activities and endeavours. These endeavours are aimed at prudent action to find a balance between economic, ecological and social interests. In other words: our modest contributions to creating a future worth living in for our grandchildren.

Obviously, with this type of visit, we cannot offer you a buffet or other refreshments. But what we can offer you are interesting articles on topics on emissions, resources or processes, among others.

And the winner is ...
Environmental Management Award for the Best Environmental Statement
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Contens:

At a real Open Day, you might meet some of our colleagues in person – and with this Environmental Statement, you can do the same. In fact, the individual articles were mostly written by the respective thematically involved people to give them their very personal touch. We wish to use this opportunity to present ourselves and our numerous activities and goals to the interested public.
Our doors are wide open – now, feel free to leave the reception area and start exploring! Start strolling through our company. We hope that you will enjoy your time with us! Thank you for your visit!
Stephan Piringer, Managing Director under the Industrial Code

The Management Team in the Company's Own KLINGER Park

In the background: A vital fish pond, supplied by process wastewater

f. l. t. r.
Michael Sautter – Commercial Director,
Ernst Schäfer – Technical Director,
Barbara Köfinger – Designated Commercial Director,
Gerhard Pawlek – Company Officer with Statutory Authority,
Stephan Piringer – Managing Director under the Industrial Code

The Rich. KLINGER Dichtungstechnik at a Glance

Introducing an Austrian company with a long tradition spanning over more than 130 years.

A subsidiary of the worldwide operating KLINGER Group, Rich. KLINGER Dichtungstechnik has specialised in the research, development and production of high-quality static industrial gaskets for more than 125 years.
Our company is run as a family business in the fifth generation and is still headquartered in Gumpoldskirchen, approx. 20 kilometres south of Vienna. As a competence centre for the 50 independent KLINGER companies and 60 production, sales and service partners worldwide, which form the KLINGER Group, KLINGER Dichtungstechnik fulfils two important main tasks: On the one hand, we are the innovation hub for the development of sealing materials and sealing solutions, while on the other hand, we are committed to offering our decade-long experience and our certified, high quality services and products to all our partners and customers.
Our product portfolio comprises flat gasket materials based on elastomer-bonded fibres (KLINGERSIL®), PTFE (KLINGER®top-chem), graphite (KLINGER®graphite laminate) and Mica (KLINGER® Milam). These are used in numerous industries, such as oil & gas, energy, the industrial sector, chemical sector or transport. Our products are complemented by services, such as, for example, software for selecting the right gasket, assembly information, product approvals, mobile training and application advice.

» MISSION

We create customer value through the manufacturing of innovative sealing materials.

The products we provide offer our customers the highest level of safety for their operations. Our know-how is based on our decades-spanning production competency, continuous development as well as on a broad spectrum of technical services, which we deliver as the leading company in the field of gaskets.

» VISION

We want to

... be the benchmark for technologically excellent and top-quality soft sealing materials, both as a manufacturer and as a developer.
... continue to safeguard and further enhance our global market and brand leadership position.
... assume social responsibility for the present and future generations as a flagship enterprise.
... be a fair, safe and excellent employer.

» VALUES

Our values determine our responsible actions towards our partners, customers, employees and towards the environment in which we live.

BUSINESS EXCELLENCE

We set the standard in the production of technologically excellent and top-quality sealing materials.

CUSTOMER VALUE

Our customers come first. We do not limit ourselves to products. Instead, we provide tailored solutions in order to master their respective challenges.

GLOBAL REGIONALITY

We manufacture our products on the basis of internationally approved, certified quality and environmental standards. Due to the global presence of the KLINGER Group, we are represented all over the world. As a consequence, we are also absolutely familiar with the corresponding local conditions at each customer location.

SUSTAINABILITY

Our entrepreneurial activities firmly take environmental protection into account. This is also proven by our quality and environmental standards, which we maintain in order to also offer future generations a world worth living in.

INNOVATIVE EDGE

Developing both our company and our products further is a constant process. Our power of innovation, which continuously leads to new solutions, is based on more than 130 years of experience across all industries.

PEOPLE SPIRIT

We create optimal working conditions for our employees. An open culture of communication, a good and fair working atmosphere as well as advanced training opportunities form the basis of our shared success.

From award winner to member of the jury – and hopefully back again

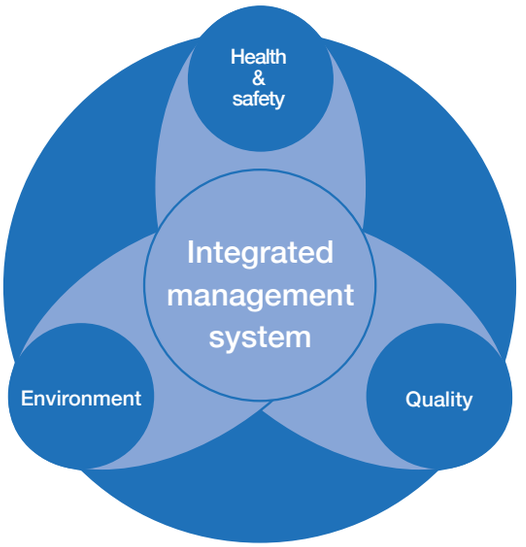
KLINGER Dichtungstechnik was invited to serve as a member of the expert jury for the Environmental Management Award 2020. This body is composed of representatives from science, business and administration.

Once again in 2020, the Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology awarded the environmental management awards. In the year before that, in 2019, the Environmental Statement of Rich. KLINGER Dichtungstechnik was the proud recipient of this award. For this reason, Stephan Piringer was asked to serve on the expert jury that selected the winners for 2020. Outstanding EMAS and Eco-label companies were rated and eventually awarded a prize in the categories “Best EMAS Environmental Statement” and “Best Environmental and Climate Protection Action”. The participants were rated based on predefined criteria. The individual ratings of the jury members were discussed and consolidated during a jury meeting, after which the winners were determined. Due to the COVID-19 regulations applicable to events held in 2020, only the winners and the jury members could attend the award ceremony hosted by Federal Minister Gewessler. We were honoured to serve as a member of the jury during this event – nevertheless, our aim is to be among the winners next time …

Integration of ISO 45001 – Made Easy Thanks to the Integrated Management System

All ISO management systems have a common basic structure – the so-called High Level Structure. Accordingly, they have common contents, objectives, terms and definitions. This makes it easier to work with several standards … and also to. integrate new standards into an existing system.

For some time already, our integrated management system has combined the systems according to ISO 9001, ISO 14001 as well as the EMAS III Regulation, thus creating the prerequisites for ensuring the quality and environmental sustainability of our products and processes at optimal general economic conditions. In this context, occupational safety and health were also addressed, though not yet within the strict framework of a specifically designed standard.
This changed in December 2021 when KLINGER Dichtungstechnik successfully completed the stringent certification process for ISO 45001 – the standard that governs occupational safety and health management systems – and is now proudly committed to this standard. As a result, we can utilise all synergies resulting from an integrated management system even better.



1892–1930

1892	Richard Klinger purchases premises for the founding of the Gumpoldskirchner Maschinen- und Metallwarenfabrik
1898	Patent issued for “Klingerit”, the first gasket made of caoutchouc and fibres.
1901	Richard Klinger sets up an acetylene plant and starts producing the gas for public lighting of the municipality of Gumpoldskirchen
1923	Richard Klinger invests in the public lighting infrastructure of Gumpoldskirchen

1931–1983

1931	Conversion of the company into a public limited company
1947	New products are developed: “Linobest”, “Linokat” and “Terakett”
1960	Klingerit 1000, a high-pressure gasket comprising a steel wire mesh, is developed for petrochemical applications
1970	The number of staff increases to 1,000
1980	The world’s first high-pressure jointing sheet based on synthetic and mineral fibres, is developed: KLINGERSIL®

1984–2003

1984	Dr. Thomas Klinger-Lohr becomes Managing Director of the KLINGER Group
1990	KLINGER receives a special award for its European approach
1994	The first asbestos-free gaskets are developed
1995	Rich. KLINGER Dichtungstechnik GmbH & Co KG is founded as the successor to KLINGER AG
1996	The production of KLINGER®top-chem is launched
1998	The company applies the EMAS Environmental Management System for the first time

2004–2018

2004	Celebration of the 111th anniversary and inauguration of the new office building
2009	Production for the North American market is relocated to Gumpoldskirchen
2011	Investments in the plant at Gumpoldskirchen: new boiler and raw materials depot
2015	Dr. Christoph Klinger-Lohr takes over responsibility for local business
2017	New tank farm is constructed
2018	Finished products warehouse is constructed; part of the production is relocated from Australia to Gumpoldskirchen

And the winner is ...

The last Environmental Statement of KLINGER Dichtungstechnik received the Environmental Management Award 2019 in the category "Best EMAS Environmental Statement".

When in 2019, the Federal Ministry for Sustainability and Tourism invited all EMAS companies to submit their environmental statement for entry for this prestigious state-funded award, Stephan Piringer and Ingrid Stassner from the "Environment & Safety" department did not hesitate and were enthusiastic to take part. They were convinced that they had a good chance of winning the award, because their Environmental Statement was not only very impressive on the inside, but also on the outside. Normally, an Environmental Statement includes numerous columns with data and diagrams on important environmental aspects. This might be interesting for experts, however, it does not necessarily promote the flow of reading and does not invite reader to browse leisurely. This, however, was precisely the intention of the new statement, which was therefore set up as a newspaper. Ultimately, this idea also convinced the expert jury that bestowed the environmental award. Their opinion read as follow: "KLINGER Dichtungstechnik published its environmental statement in the form of a newspaper. This makes the publication attractive encouraging readers to read it thoroughly. Environmental impacts and environmental performance are illustrated to the point. The same applies to the team responsible for the environmental management system." The award ceremony took place as part of the "Green Cooperation 2019" conference at the Orangery at Schönbrunn Castle. Federal Minister Maria Patek personally presented the prestigious award to Ingrid Stassner and Stephan Piringer, who were honoured to receive the award on behalf of KLINGER Dichtungstechnik.

Ingrid Stassner and Stephan Piringer receive the 2019 Environmental Management Award personally from Federal Minister Maria Patek.

IN BRIEF

Fire Drill 2.0 with the auxiliary fire brigade

Thanks to the artificial smoke developed by "Firefog", it was possible to organise the fire drill on 21 October 2019 under realistic conditions.

The first task the Gumpoldskirchen auxiliary fire brigade had to handle was to evacuate several missing people from a hall filled completely with smoke. The second exercise of this drill involved extinguishing an ASP waste container and a tipping trough with waste containing solvents that had caught fire, and protecting steel drums labelled as "highly flammable" from the flames.

Environmental Objectives 2018–2021

Year/Brief Description	Measures	Status	Comment
2018			
1. Keep reject rate for SIL at below 4 %	> Training measures > Targeted measures for quality improvement	Not accomplished	Changed customer requirement
2. Reduction of the reject rate of TC to 1.5 %	> Training measures > Targeted measures for quality improvement	Not accomplished	Precise root cause could not be found (raw materials, laboratory test, manufacturing processes)
3. 20 MWh energy recovery per modified calender	> Improvement of system control > Use of evaluation software	accomplished	Savings not yet measurable
4. Increase of the regenerate quota	> Increasing awareness of customers for this topic and € value > Exploitation of 1 to 2 additional sources	Partially accomplished	Objective will be pursued further in 2019.
2019			
1. Keep reject rate for SIL at below 4 %	> Training measures > Targeted measures for quality improvement	Not accomplished	Actual SIL = 6.14 % – Changed customer requirements – Production transfer from different plant
2. Reduction of the reject rate of TC to 1.5 %	> Training measures > Targeted measures for quality improvement	Not accomplished	Actual TC = 3.07 %
3. 20 MWh energy recovery per modified calender	> Improvement of system control > Use of evaluation software	accomplished	Savings not yet measurable
4. Increasing expertise in and awareness of quality and environmental management system	> Internal training sessions on the topic Quality and environmental management system	accomplished	
5. Increase of the regenerate quota	> Increasing awareness of customers for this topic and € value > Exploitation of 1 to 2 additional sources	Not accomplished	Not accomplished: – Volume structure at customers – Required purity of variety Obj. will be pursued further in 2020.
6. Visualisation of energy monitoring	> Evaluation of suppliers > Data transfer and set-up on computers	accomplished	Obj. will be pursued further in 2020 (visualisation).
7. Optimisation of boiler 3: Fuel savings ≥ 80 MWh/year and electricity savings ≥ 80 MWh/year based on 8,500 operating hours	> O_2 control > Speed control for burner blower	accomplished	
2020			
1. Keep reject rate for SIL at below 4.5 %	> Training measures > Targeted measures for quality improvement	Not accomplished	Actual SIL = 6.09 % – Training of new employees – Diverse malfunctions (e.g. mixing, calendering shop)
2. Reduction of the reject rate of TC to 2.3 %	> Training measures > Targeted measures for quality improvement	Not accomplished	Actual TC = 5.95 %
3. Increasing expertise in and awareness of quality and environmental management system	> Internal training sessions on the topic quality and environmental management system > Creation of awareness on “impact of a defective gasket”	accomplished	– Training completed – Objective will be pursued further in 2021.
4. Visualisation of energy monitoring	> Continuation of the measures of 2019: – Automated measurement of energy consumption – Visualisation of consumption based on indicators	accomplished	– Quantity reports – Ethanol/toluene fill levels – Continuous extension
5. Start of the new TC manufacturing process	> Conversion of at least one TC product to the new manufacturing process	accomplished	Conversion TC 2006
6. Increase of the regenerate quota	> Increasing awareness of customers for this topic and € value > Exploitation of 1 to 2 additional sources	Not accomplished	Excessive expenditure vs. minor benefit acc. to surveyed customers
2021			
1. Reduction of the reject rate of SIL to less than 5.0 %	> Ongoing quality reviews and creation of the responsible departments	Dec.	
2. Reduction of the reject rate of TC to 4.0 %	> Conversion of the manufacturing process to a different production aid	Dec.	
3. 2m calender	> Erection and commissioning of a calender for the sheet format 4,500 mm x 2,000 mm	Dec.	
4. Roll-out of digital quality data acquisition for SIL	> Introduction of digital quality control cards	Q 3/21	
5. KDT eLearning program “Sealing Technology”	> Development and implementation of the software	Dec.	
6. EcoVadis assessment	> Audit or validation with a targeted rating of > 55 points	Dec.	

Abbreviations: SIL = KLINGERSIL®
TC = KLINGER®top-chem

Our New Corporate Policy ...

... recently revised, still clearly structured and now new with the most important topics on occupational safety and health in accordance with ISO 45001.

Following the principle of continuous improvement, essential safety aspects have been added to our quality and environmental policy. Accordingly, our new corporate policy now includes the areas quality, environment and safety.

WE ARE COMMITTED TO:

CONTINUOUS IMPROVEMENT

of our products, processes and management systems under economic aspects.

BINDING REQUIREMENTS

Compliance with all legal obligations and contracts and requirements relevant for the company.

PRODUCT AND SERVICES

Production of high-quality sealing materials complemented by the best services.

SAFETY AND HEALTH

A safe environment for our employees to prevent injuries and diseases as well as continuous minimisation of risks.

EMPLOYEES AND THEIR REPRESENTATIVES

Respectful and fair treatment, action that is guided by ethical values, proactive co-design among each other.

STAKEHOLDERS

All internal and external stakeholders embrace the compliance with the guiding principles.

ENVIRONMENTAL PROTECTION

Prudent and responsible use of resources and exceeding of statutory minimum requirements.

Ernst Schäfer

Michael Sautter

Consistency and change in the organisational structure

Keeping what has proven to be successful while embracing positive change.

Back in 2018, Ernst Schäfer (Technical Management) and Michael Sautter (Commercial Management) jointly took over the management from their predecessor Christoph Klinger-Lohr.
Already in 2017, Stephan Piringer was appointed as KLINGER Dichtungstechnik's new Managing Director under the Industrial Code and consequently holds the combined position of Environmental Officer and Safety Officer.
However, the team of functions with a close environmental relevance also includes some new faces: Christian Mayer has been appointed as waste officer, Till Neumann-Hartmann as fire prevention officer, Raphael Wolfsbauer as hazardous goods officer and Christian Nagy as (external) safety expert of KLINGER Dichtungstechnik.

Welcome to the team!

f. l. t. r.: R. Blumauer, R. Wolfsbauer, H. Stassler, I. Stassner, St. Piringer, C. Mayer, I. Deninger

A Place on the Podium at the First Attempt

Corporate responsibility also includes the environmental performance of an organisation – but certainly not just this alone. This view is shared by the EcoVadis agency, which rated our company far beyond our environmental aspects.

Corporate responsibility is a flexible term. The EcoVadis agency basically divides this topic into 4 areas: environment, labour and human rights, ethics and sustainable procurement.
KLINGER Dichtungstechnik was one of already 75,000 companies rated by EcoVadis in 2021 based on a tailored approach considering these four subject areas. Thanks to its many years of activities as part of the EMAS certification, KLINGER Dichtungstechnik was way ahead in the evaluation in the environmental sub-area. The good performance in the areas environment, occupational safety and labour rights contributed significantly to the successful overall rating. This assessment is based on a scoring system with a set of complex weightings relating to corporate policies, activities of the organisation and its results reporting. For example, the EMAS Environmental Statement was used as result report.
KLINGER Dichtungstechnik received the silver medal at the first attempt! In the industry "Manufacture of rubber and plastic articles", we received a score that was by 70% better than all the other rated companies in this industry. Aside from KLINGER Dichtungstechnik, our associate companies KLINGER Schöneberg and KLINGER Kempchen had already been rated by EcoVadis.

We are looking forward to next year's rating, and in view of our continuous improvements, we have set our eyes firmly on the gold medal.

IN BRIEF

Construction of a Finished Goods Warehouse

As part of our stakeholder analysis, the topic of delivery logistics was rated as relevant for both the environment and quality. The racking system was constructed on an area of approx. 960 m² providing a storage capacity of around 300 tons of jointing sheets.
In future, the warehouse management can compensate order fluctuations, disproportionate additional expenditure for resources for small quantities and unfavourable production or delivery constellations.

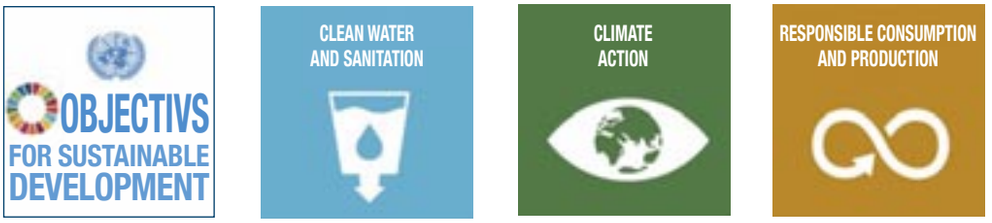
View of the newly constructed finished goods warehouse

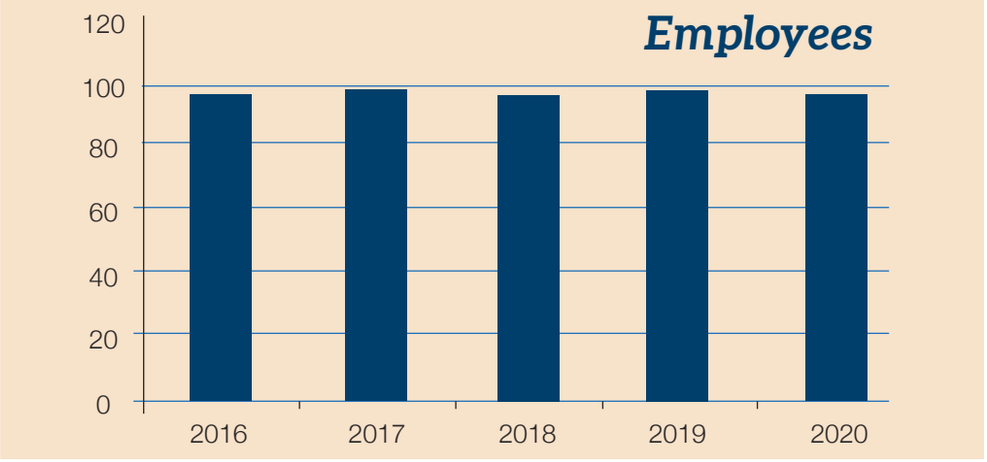
Internal Auditor R. Stassner

UN Global Compact Signed

In June 2021, KLINGER Dichtungstechnik joined the largest initiative for corporate responsibility – the United Nations Global Compact.

By signing this worldwide pact for a more social and ecological globalisation, the company has committed itself to actively working towards the UN goals for sustainable development – the so-called SDGs.
From now on, KLINGER Dichtungstechnik will submit a report to the UNO once per year describing which activities it has implemented to achieve the 17 Goals for Sustainable Development. With its product portfolio and the careful use of resources in the manufacturing process, the company can make a special contribution to three development goals of the United Nations: “Clean Water and Sanitation”, “Responsible Consumption And Production” and “Climate Action”.
According to Mr Piringer, this will be complemented by sustainable activities on an ongoing basis: “In order to strengthen our contribution to the achievement of the SDGs, we have initiated concrete additional projects, for example for raising awareness on ethics among employees, for further increasing industrial safety and for holding our suppliers to account.”





"I Spot With My Little Eye ..."

Can't see the wood for the trees – often quoted and even more often true. If this saying is true for a company, a trained eye from the outside can help.

Defensiveness, nervousness, prescribed wording, blockades – these are frequently observed reactions when an external inspection or audit is announced. A different approach, however, would be to welcome the opportunity to get valuable tips from people who are not "routine-blinded". For the environmental department of KLINGER Dichtungstechnik, it is common practice to rely on the support of external experts to advance the continuous improvement process. We like it when someone looks over our shoulders and on our fingers. Against this backdrop, we have undergone a number of external audits since the last environmental statement.

For example, a Legal Compliance Audit was carried out in October 2020, which focussed on compliance with the diverse and, above all, constantly changing legal regulations applicable to environment and occupational safety.

In April 2020, a fire inspection was carried out jointly with a specialist of the Gumpoldskirchen fire brigade. Naturally, its main focus was fire prevention.

In August 2020, a risk manager assessed KLINGER Dichtungstechnik in terms of diverse risk scenarios and the "probable maximum loss". Not to forget the annual external audits as part of the ISO-14001 certification.

In summary, it can be stated that all of the external audits provided us with useful suggestions for improvement. And our organisation implemented these in follow-up measures – without any defensiveness, nervousness, prescribed wording or blockades.

We like it when people that are not "routine-blinded" take a closer look.

Who's interested?!

Organisations today have to deal with a multitude of stakeholders and their expectations. Knowing these is an advantage.

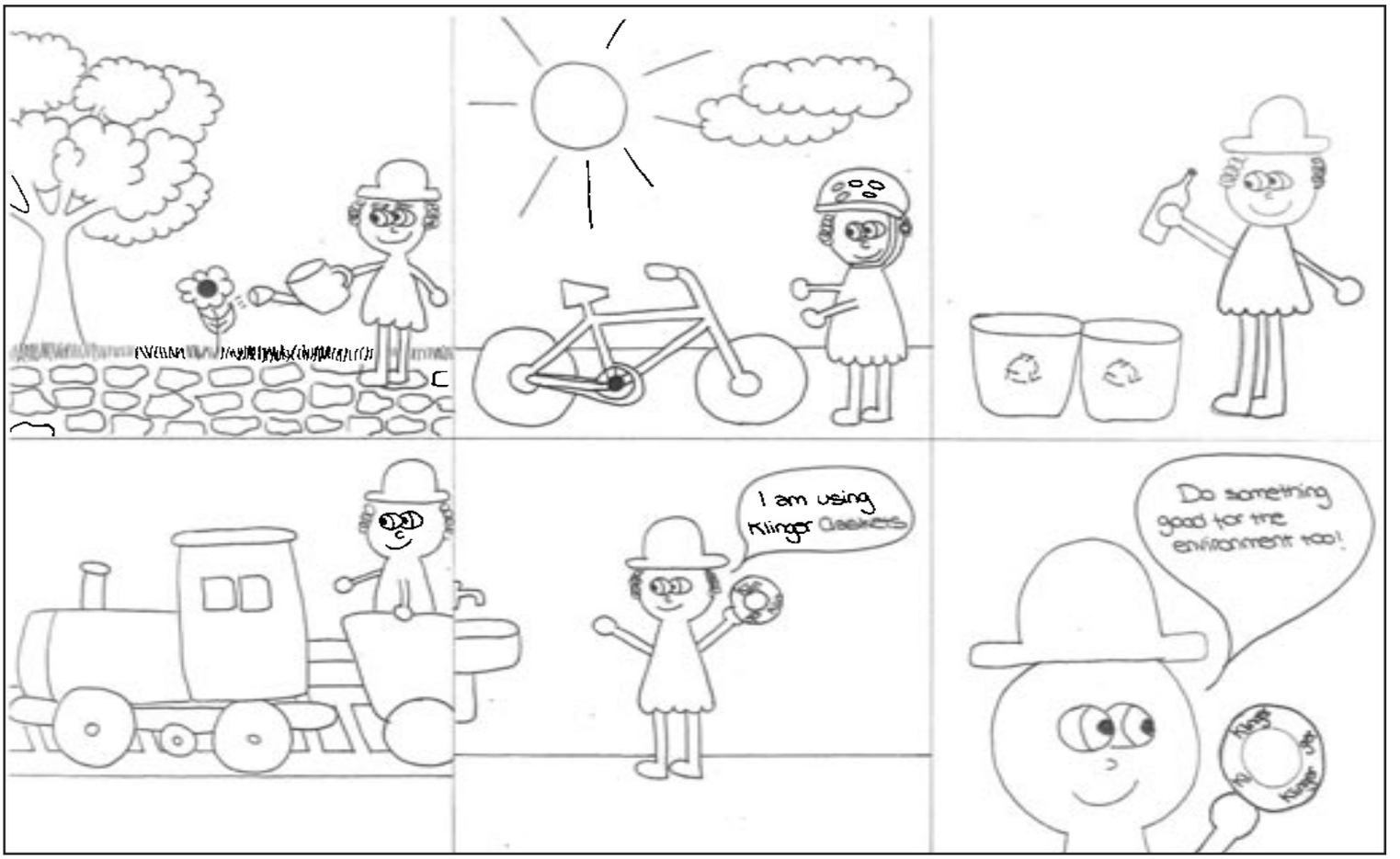
Who is actually interested in what we do as a company? No, we do not ask this question because we feel sorry for ourselves. Instead, we want to know our stakeholders. Stakeholders, influential people, interested parties – there are multiple terms or synonyms to describe people or groups of people who have expectations of an organisation and also have a significant influence on them. Nowadays, many different management systems (environment, quality, occupational safety) follow a common and uniform requirement and approach in this regard, namely the determination of so-called interested parties, their expectations of and influence on the organisation. In 2017, KLINGER Dichtungstechnik systematically identified our stakeholders for the first time and rated their influence on a scale. Since then, this analysis has been continued, adjusted, expanded and redefined at periodic intervals. During the period since the last environmental statement, this list has grown naturally from the experiences made in our day-to-day business. In the difficult environment of the pandemic, relatives of employees were added. Other new additions to the list include external companies or preventive officers. The comprehensive knowledge of our stakeholders strengthens our understanding of the entirety of the expectations placed on us and helps us to deal with opportunities and risks.

Eco-energy from Hydropower

Since August 2020, the KLINGER location has been receiving electricity from the small hydro-electric power station in Gumpoldskirchen.

Am Kanal 8–10: As the address of KLINGER Dichtungstechnik suggests, its premises are located directly adjacent to the Wiener Neustadt Canal. It was originally intended as a waterway for the transport of goods from the city centre of Vienna to the Adriatic Sea. Ever since it was built around 1800, it has also been used for energy generation. The small hydroelectric power station project in Gumpoldskirchen was started back in 2007. Following trial operation and several test runs, the hydropower plant was put into operation in 2010 – on the canal (sluice 2). In August 2020, it was taken over by the company api-solution GmbH from Purbach, which implemented some improvements to the drives and completed diverse repairs.
This small hydroelectric power station generates approx. 70–90 MWh of environmentally-friendly electricity per year, which since 2020 has been fed exclusively into the KLINGER network.

Hydroelectric power station at the Wiener Neustadt Canal, sluice 2, Gumpoldskirchen



drawing by Isabella Müller (Sales)

Highest Safety Requirements for Tank Farms

At KLINGER Dichtungstechnik, safety is a top priority. This is why the statutory safety requirements are exceeded for newly constructed installations.

Different tank farms are used at KLINGER Dichtungstechnik for the storage of in-process fluids. In total, more than 100,000 litres of in-process fluids can safely be stored and supplied to the production at any time.
To guarantee safe storage and to meet the strict requirements of the authorities and standards, numerous safety measures have been installed. These include, among other things, double jacket monitoring, overfill protection, various deflagration arresters or integration into a higher-level SCADA system for constant monitoring of the operating states.
This safety thinking has been enshrined in the corporate culture and in the safety concept and incorporated into all tank storage projects, even when storing uncritical substances. This is also the case with our new paraffin tank, in which a double jacket and a leak detector have been installed as a voluntary safety precaution.

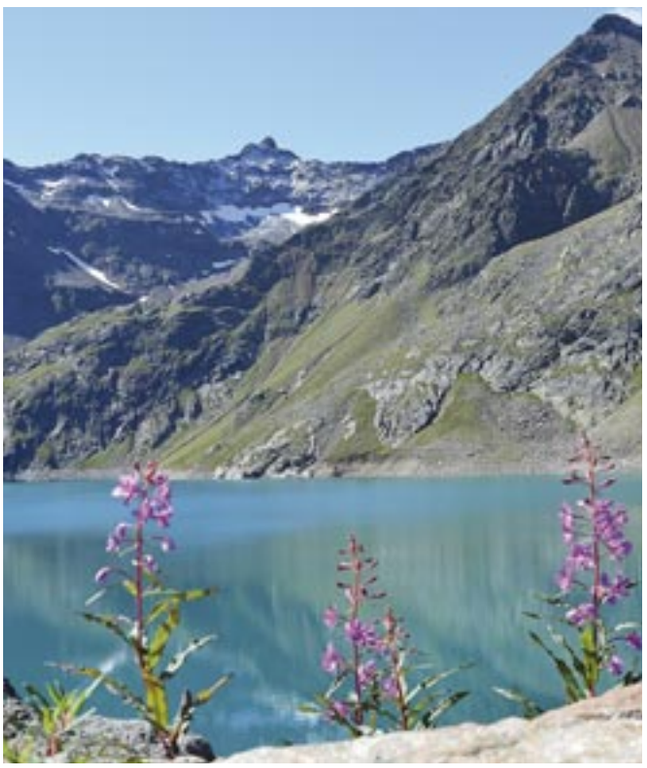
Continuous improvements and the implementation of new systems are the prerequisites for maintaining and upgrading the high safety standard demanded by KLINGER.

In-process fluids tank with double jacket and leak detector housed in a separate fire compartment

IN BRIEF

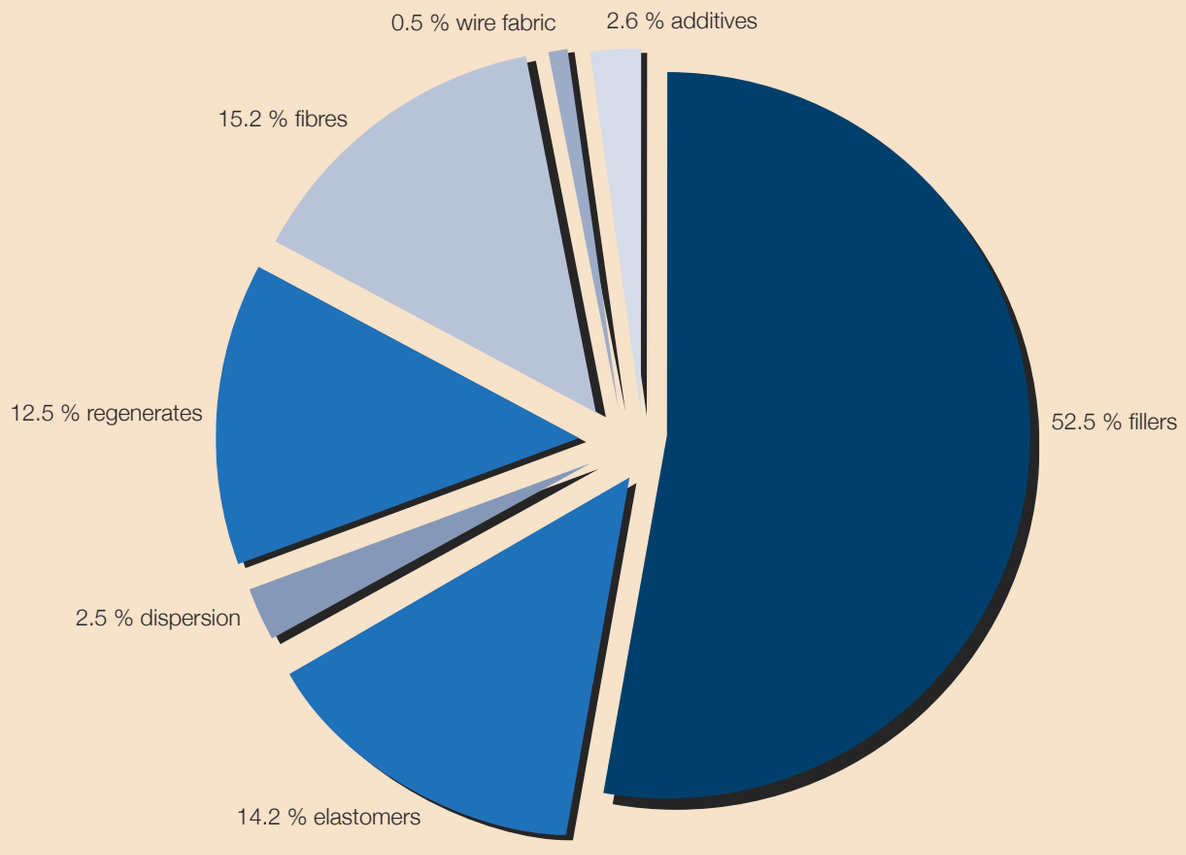
100% Electricity from Hydropower – Sustainable Resources are a Priority for Us Even for Electricity

KLINGER Dichtungstechnik purchases its electricity via the real estate lessor KLINGERpark. Together we make sure that 100% of it comes from hydropower.
A certificate verified by an independent auditor confirms it. This is our contribution to the increased use of sustainable energy source when purchasing electricity.

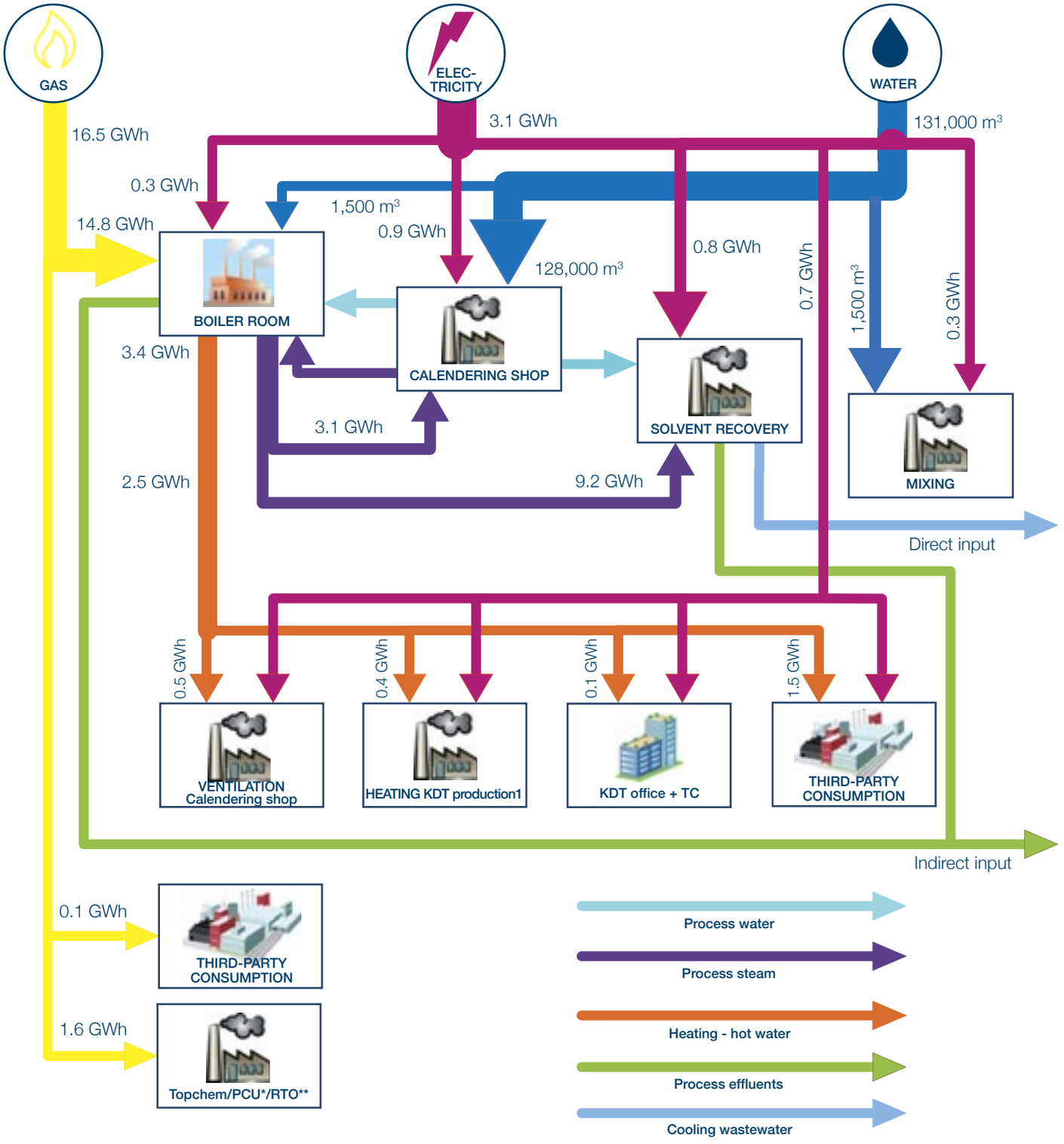


Raw material use

Section of the KLINGERSIL raw materials storage hall



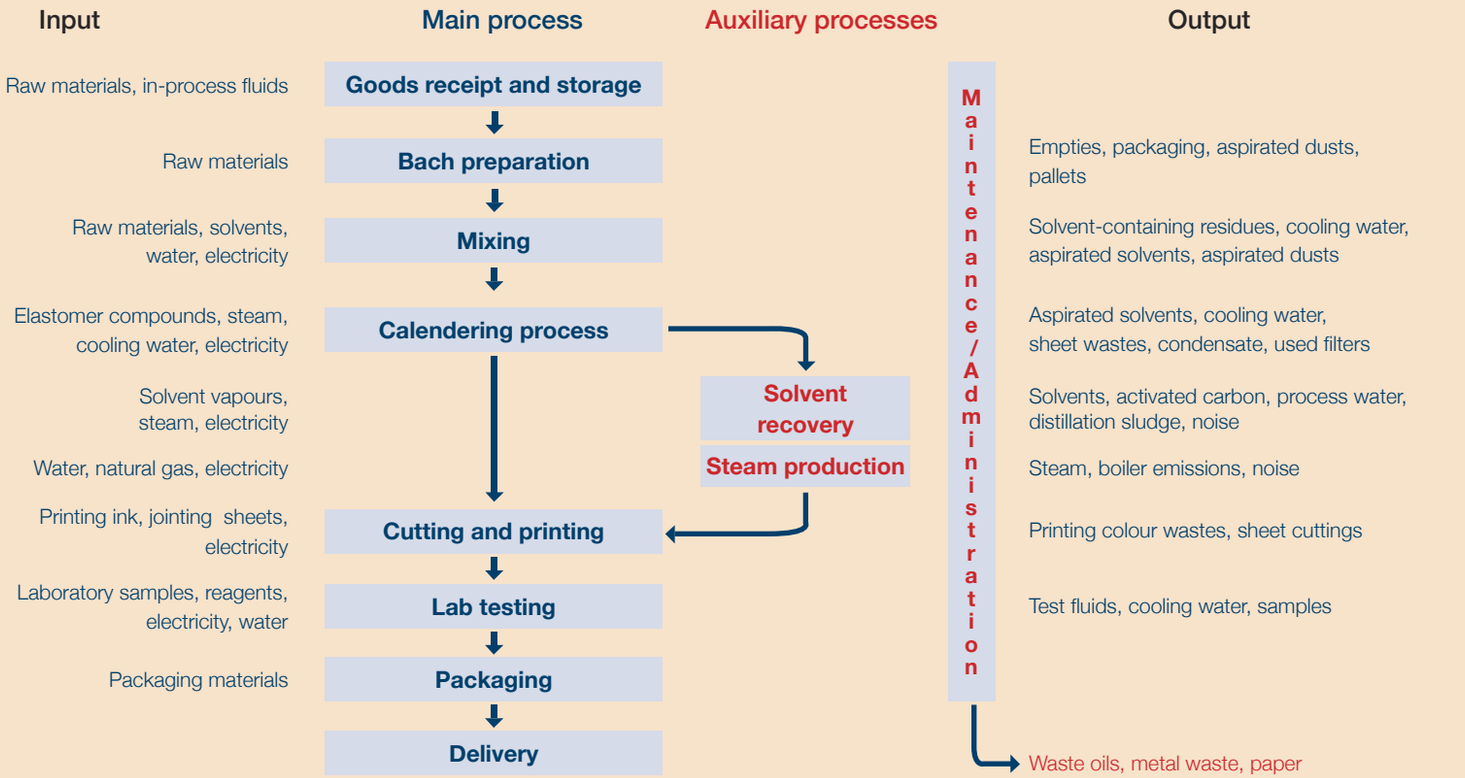
Energy flows



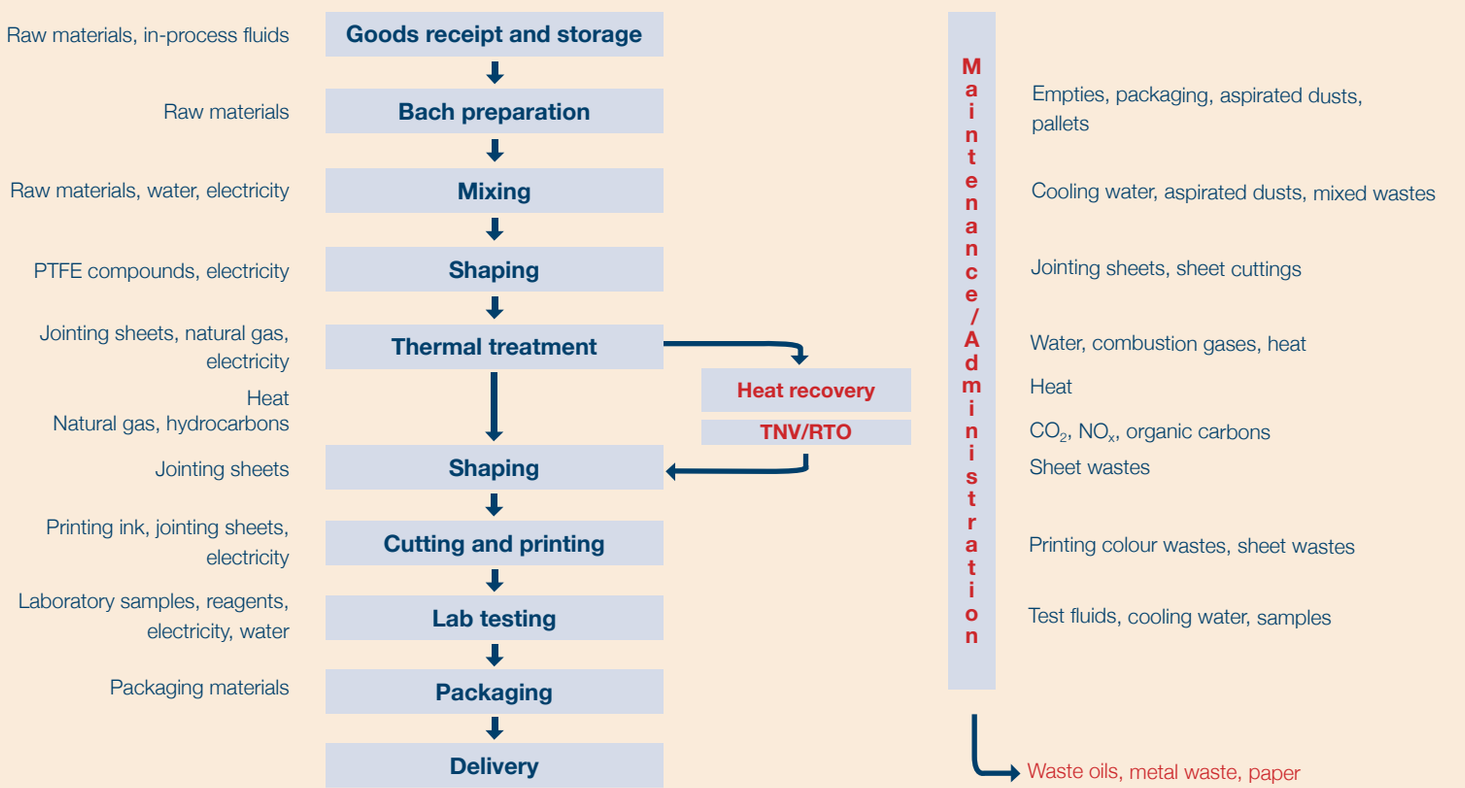
* Post combustion unit

** Regenerative thermal oxidation plant

Waste-relevant process chart KLINGERSIL®



Waste-relevant process flow chart KLINGER®top-chem



Emergency Management – If It Does Happen

Emergency situations can never be ruled out with absolute certainty and sometimes they happen without any fault on our part. Well thought-out preparation for such exceptional situations makes it easier for everyone involved to take the right countermeasures and thus ward off even greater damage.

An interview with Mrs Ingrid Stassner, "Environment and Safety" Department.

At the fire control centre: Stephan Piringer during an emergency drill

Mrs Stassner, what is important about emergency management in your opinion?
For companies, it is critically important to identify possible dangers and threats in good time and to be able to assess the resulting risks. Risk management helps to avoid damage or – if something does happen – to minimise the loss. Combined with it, efficient emergency management is also important to ensure quick response in an emergency.

What do you regard as the three most important emergency management measures implemented recently?
Among other things, these included creating an emergency folder that contains all the documents important in an emergency, such as e.g. emergency-related instructions, emergency contacts, first-aid information and fire protection documents... in an emergency, we cannot lose valuable time searching for the necessary documents. It is essential that the key people have everything close to hand. We have also revised our emergency procedures document, have appointed a crisis management team and assigned the respective competencies. In addition, as a fire protection innovation, the new emergency cards have already proven themselves very useful during this year's evacuation drill. These are attached to the safety vests of the key fire protection workers and help to keep track of the necessary process. So that we can act quickly when we have to.

What do you regard as the "alpha and omega" of an efficient emergency management?
Comprehensive planning and preparation as well as good teamwork.

What is your personal motto in a crisis? Take a deep breath, keep calm, focus and do what is necessary ... You can still freak out when everything is over.

Areas/ plants	Significant direct environmental aspects														
	Society	Hazardous waste	Non-hazardous waste	Air	Water	Soil	Noise	Odour	Soil consumption	Environmental risk	Energy efficiency	Material efficiency – raw materials	Material efficiency	Water consumption efficiency	**Sum of direct environmental aspects**
Calendering SIL	-	4	5	2	5	-	-	1	3	5	5	5	3	5	**43**
Mixing SIL	-	5	-	2	-	1	-	1	2	3	3	5	4	-	**26**
Solvents ethanol recovery	-	-	1	3	2	-	-	1	-	5	5	-	4	3	**24**
Steam production	-	-	-	5	3	-	2	1	1	3	5	-	-	3	**23**
Solvents toluene recovery	-	-	1	3	-	-	-	1	-	5	5	-	4	2	**21**
Cooling water circuit	2	-	-	-	5	-	3	-	-	4	-	-	-	5	**19**

Direct environmental aspects in connection with laws, vibrations, visual appearance and regional aspects were analysed and found to be not applicable.

Areas/ plants	Significant indirect environmental aspects													
	Raw materials sustainability	Transport	Environmental aspects product: Storage/packaging	Environmental aspects product: Transport/shipping	Environmental aspects product: Use phase	Environmental aspects product: Secondary use phase	Capital investment	Insurance services	New markets	Selection and composition of services	Administration and planning decisions	Composition of the product offer (TA Air 75 %)	Environmental performance of (sub)contractors/(sub)suppliers	**Sum of indirect environmental aspects**
Purchasing	3	4	3	3	-	-	-	-	-	4	-	-	4	**21**
Sales	-	-	1	2	3	2	-	-	2	-	1	4	-	**15**
Product development	4	-	-	-	4	3	-	-	-	-	-	3	-	**14**
Product testing	-	-	-	-	5	-	-	-	-	-	1	1	-	**7**
Controlling	-	-	-	-	-	-	3	1	-	-	2	-	-	**6**

Indirect environmental aspects in connection with energy sources/sustainability as well as mobility/employees were analysed and found to be not applicable.

Let the Cat ... or the Dust ... Out of The Bag

A jointing sheet is composed of up to 15 individual substances – many of which are dusty. They must be weighed and manipulated. And who wants to stir up a lot of dust anyway?

For the preparation of a batch of sealing material, various dusty components have to be weighed, combined, transported and fed into the mixer. This process is repeated up to about 25 times a day. Not all of this handling can be done in closed containers or conveyor systems. Despite powerful extraction systems, the release of small amounts of dust cannot be ruled out. A project was initiated to make the work processes associated with this batch preparation easier and less dusty. Some of the individual substance are already weighed and delivered packed in sacks. This eliminates the need for weighing and combining and the resulting release of dust. Further handling and internal transport take place in closed bags and are therefore dust-free. The pre-weighed bags are only opened when they are fed into the mixer by aspiration. This measure has reduced the release of dust.

David Neukam working at a weighing station

Solvent balance 2020

	Definition	kg/a	%	Datengrundlage
I	Amount of solvents used (Determination on basis of mix designs)	1,601,897	100.0	Calculation on basis of mix designs
I/1	Amount of organic solvents bought	79,359	5.0	Purchasing
I/2	Amount of recovered solvents	1,522,538	95.0	I/2 = I – I/1
O/1	Solvent emissions in exhaust gas	1,503	0.1	Determined on basis of calender operating hours and MAPAG audit report of 7 December 2018
O/2	Solvent emissions in wastewater	0	0.0	Process-related
O/3	Solvents residues in product	0	0.0	Process-related
O/4	Diffuse emissions	29,301	1.8	Determined on basis of calender operating hours and MAPAG audit report of 7 December 2018
O/5	Solvent resulting from chemical or physical reactions	0	0.0	Process-related
O/6	Solvent in residues (disposed)	48,555	3.0	Disposal records (solvent content calculated on basis of material composition)
O/7	Solvent sold	0	0.0	Process-related
O/8	Amount of solvent recovered, but not reused	0	0.0	Process-related
O/9	Solvent released through routes not accounted for by other categories	0	0.0	Process-related
	Total O/1 through O/9	79,359	4.95	Calculation
C	Solvent consumption = I/1 – O/8	79,359	4.95	Calculation
F	Diffuse emissions = I/1 – O/1 – O/5 – O/6 – O/7 – O/8	29,301	1.83	Calculation
E	Total emission = F + O/1	30,804	1.92	Calculation

AREA USED IN 2020*	
Built-up areas	15,538 m²
Transport areas	15,320 m²

* Transport areas are calculated on the basis of a defined key. Non-built-up areas are not under the authority of Rich. KLINGER Dichtungstechnik GmbH & Co KG.

Harald Stassler inspects a manhole shaft (underground solvent tank)

Reconstruction of the Mixing Extraction

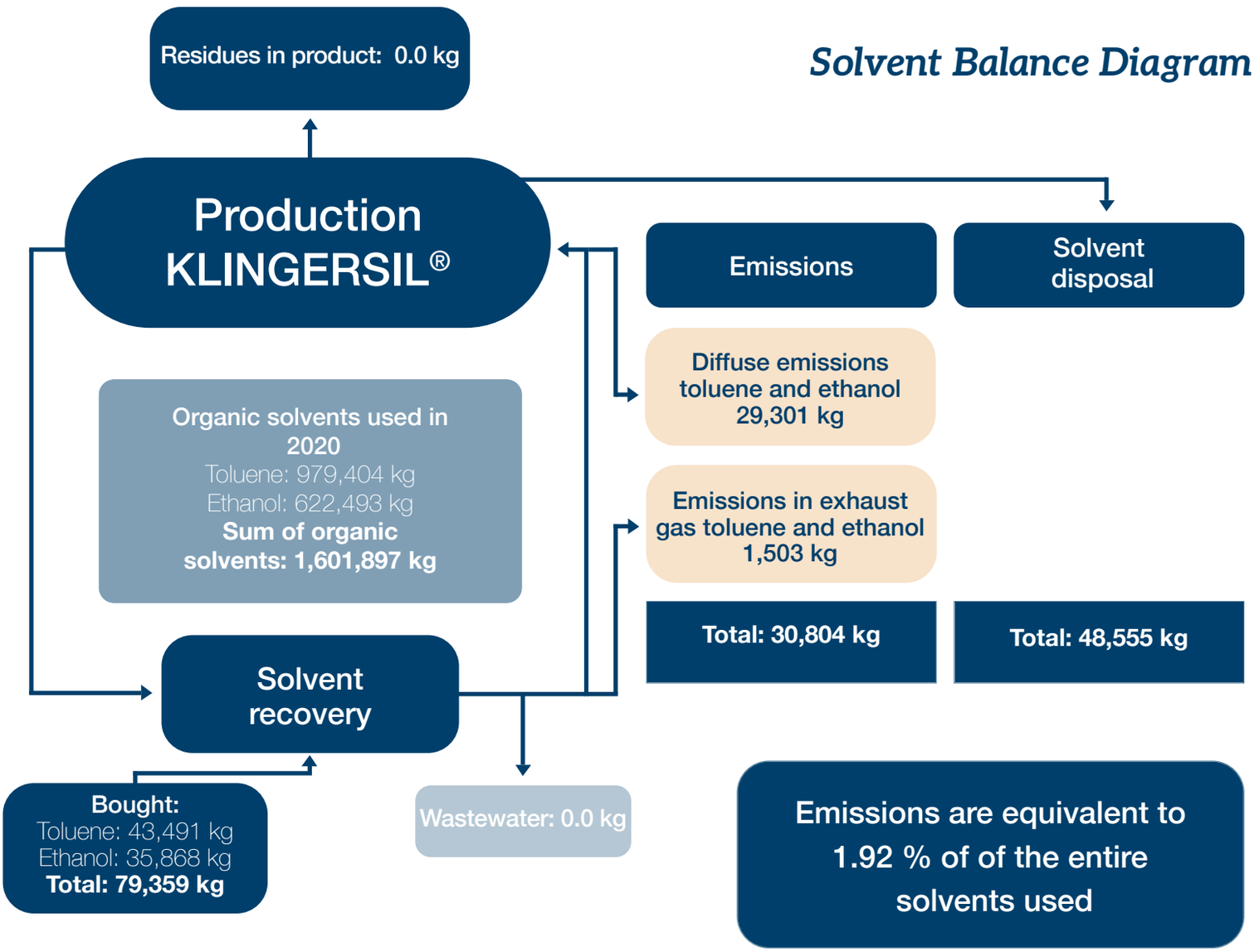
From now on, all emissions from the mixing plant are directed through the solvent recovery plant.

In the mixing plant, the basic material for the downstream jointing sheets manufacturing process is produced from dry substances and solvents. The dust and solvent emissions released at the workplaces are collected and disposed of via an extraction system. In a first cleaning step, the resulting air volume flows through a filter system to remove the dust content from the exhaust air flow.
In order to remove the solvents from the exhaust air flow, another cleaning step has now been added. For this purpose, the exhaust air duct was connected to the existing recovery plant via a newly added pipe connection. The existing solvent emissions are separated and returned to the production process so that only cleaned exhaust air is released into the atmosphere.

A dust and TVOC emission measurement was conducted by the accredited testing and inspection body MAPAG in 2020. Result: Limit values have been complied with.

Bata Schindler during the filling of sealing compound

Solvent Balance Diagram



More Efficiency and Resource Conservation Through Regenerative Thermal Oxidising

Save resources while doing something good for the climate? Our new RTO (short for regenerative thermal oxidiser) can do it!

The latest major investment in the Topchem production area has resulted in a significant increase in resource efficiency and at the same time helps KLINGER to reduce its CO_2 emissions. No wonder that the two commercial directors Ernst Schäfer and Michael Sautter are particularly proud of "their" RTO. When asked about the reasons for the new system, Commercial Manager Mr. Sautter explains: "Our regenerative thermal oxidiser is part of a new manufacturing process for our high-performance PTFE sheets with fillers. This allows us to increase our material efficiency. In addition, we can reuse the waste heat. This is in line with our commitment to "sustainability" as it contributes to the conservation of resources in our production."

During the manufacturing process, substances are released that have to be removed from the raw gas to keep the air clean; the raw gas is primarily produced during PTFE sheet tempering. "We had two options," Technical Manager Schäfer explains, "either to opt for thermal oxidising or for regenerative thermal oxidising." Both options would achieve the legally required results, but calculation models quickly showed numerous advantages that clearly spoke in favour of regenerative thermal oxidising. "Admittedly, the investment costs were significantly higher," Mr Schäfer explains, "but this was offset by lower operating costs, noticeably less CO_2 emissions and a lower thermal energy requirement." The latter can be explained by the improved waste heat recovery, in the course of which more excess heat can be returned to the process. In addition to significant energy savings, the RTO also results in significantly lower CO_2 emissions: At full capacity, the savings amount to more than 150 tons per year.

This is what air quality control looks like - the new RTO for exhaust air purification

IN BRIEF

Annual Total NO_x-Emissions Documented

While compliance with the NO_x limit values is regularly monitored, but total annual emissions are not measured, there was no information on this in KLINGER Dichtungstechnik's environmental statements until 2017.

However, meeting this important EMAS requirement is a priority for the company. Therefore, the environmental department developed a system for calculating the consumption based on the operating hours and the volume flow. As a result, the key indicators are now presented as comprehensively as possible.

Process Wastewaters – Crystal Clear

On 25 September 2015, all 193 member states of the United Nations adopted the 2030 Agenda for Sustainable Development. It contains the 17 goals for sustainable development. The sixth goal refers to "Clean Water".

We also want to contribute to this goal. In April 2019, an accredited testing and inspection body was commissioned to carry out a comprehensive analysis of our indirectly and directly discharged wastewater. 25 parameters (e.g. zinc, lead, cadmium, hydrocarbons...) were examined on the samples. All results were below the limit values stipulated by of the Wastewater Emissions Ordinance for Cooling Systems and Steam Generators. Various organisational and technical improvement ideas have been implemented to ensure compliance with the limit values. A few years ago, Mr. Blumauer was appointed as wastewater treatment plant representative. In order to continue to ensure the smooth operation and controls of the system when Mr. Blumauer is unavailable, Mr. Neumann-Hartmann was appointed as his deputy. He is also responsible for carrying out the voluntary self-monitoring of our wastewater. These have also been improved. Sulphate was included in the scope of the internal audit as an additional test parameter. Previously, a single sample was taken from the wastewater at a specified sampling time and at a defined sampling location to conduct these analyses. Now, sampling has been changed to a so-called mixed sample. An automatic sampler takes a 125 ml sample of wastewater every 8 hours, mixes and collects it. The measurement is then carried out on this mixture. As a result, instead of a short snapshot, it shows the concentrations over an extended period. Another important newly implemented measure is the continuous recording of the discharge parameters quantity, temperature and pH value including alerts in case values are exceeded or not reached. Our wastewater is simply a clean thing.

Once again in 2020, the company MAPAG tested our wastewater. Result: Limit values complied with.

IN BRIEF

A Picture Says More Than 1,000 Words

And a chart says more than 1,000 individual values

A short monthly report was created for the continuous monitoring of electricity, gas and water consumption. It contains a graph showing the current quantities and the respective consumers. In addition, these are compared with previous year's values. Seasonal fluctuations due to the need for heating, for example, can thus be put into context with comparable periods and can be interpreted in a more meaningful manner.

Highly Volatile, But Still Almost Completely Under Control

Given the current state of the art, the use of solvents is unfortunately unavoidable for the production of fibre-reinforced jointing sheets. The authorities must receive an annual report on use, quantities and emissions.

Organic solvents belong to the so-called VOC – volatile organic compounds. In this context, the term "volatile" is almost self-explanatory. These substances evaporate easily and quickly into the atmosphere. This is also the reason why we can easily detect them by their smell.
This property makes it difficult to keep emissions as low as possible. The best way to do this, though, is to keep them in a closed circuit where possible to prevent them from evaporating in the first place. Another benefit of recycling is the reuse of solvents. With this technology, just one litre of solvent can be used at least 35 times in the manufacture of jointing sheets before being disposed of or evaporating. These processes and volume flows are presented annually in a solvent balance and are reviewed by an environmental verifier.

View of the solvent recovery plant

IN BRIEF

Safety First – This Principle is Also True for the Environment!

Inspired by the well-known airline safety cards, KLINGER Dichtungstechnik has summarised its most important safety instructions in the form of easy-to-understand pictograms on one card. The pictograms make the instructions easy to understand. The environment also benefits from this, because the cards include information on environmentally relevant safety issues such as e.g. correct waste disposal or use of the suction system. What is special about it? All pictures of e.g. plants or containers are not general pictograms, but look exactly as those used at the company. This realistic representation makes it easier to understand and implement the content, and identification is generally increased.

1. TCA 764 – Supersorbon adsorber unit[1]

	Max. output	Measurement value
Gas volume treated:	35,000 m^3/h	29,000 m^3/h

	Limit value	Measurement value
TVOC:	100 mg/m^3	5 mg/m^3

2. TCA 4509 – Sorboblock adsorber unit[1]

	Max. output	Measurement value
Gas volume treated:	30,000 m^3/h	18,000 m^3/h

	Limit value	Measurement value
TVOC:	100 mg/m^3	< 2 mg/m^3

3. Boiler house[2]

Boiler 3	Limit value	Measurement value
CO	80 mg/m^3	25 mg/m^3
NO_x	100 mg/m^3	97 mg/m^3
Boiler 4		
CO	80 mg/m^3	7 mg/m^3
NO_x	100 mg/m^3	93 mg/m^3

4. Post combustion unit (PCU)/Regenerative thermal oxidation plant (RTO)

PCU 1 decommissioned

RTO[3] (replaces TNV 1)	Limit value	Measurement value
NO_x	100 mg/m^3	6 mg/m^3
CO	100 mg/m^3	5 mg/m^3
TVOC	20 mg/m^3	2 mg/m^3
O_2	–	20.1 Vol.-%

PCU 2[4]		
NO_x	100 mg/m^3	36 mg/m^3
CO	100 mg/m^3	12 mg/m^3
TVOC	20 mg/m^3	2 mg/m^3
O_2	–	17.6 Vol.-%

1 Measurement taken by company MAPAG on 30. 10. 2018
2 Measurement taken by company MAPAG on 20. 04. 2020
3 Measurement taken by company MAPAG on 08. 07. 2020
4 Measurement taken by company MAPAG on 27. 05. 2020

Waste management

Type of waste	Waste code number ÖNORM S 2100	2016 in t	2017 in t	2018 in t	2019 in t	2020 in t
Non-hazardous waste						
Wooden packaging material	17201	40.30	51.16	56.53	80.03	92.14
Plastic foils	57119	16.73	17.88	19.81	17.55	18.76
Iron and steel scrap	35103	19.57	34.59	15.43	19.06	24.15
Waste paper	18718	40.48	42.89	40.39	44.79	24.53
Rubber (jointing sheet cut-offs)	57501	131.45	86.96	134.55	124.32	143.97
Municipal waste and similar commercial waste*	91101	20.73	19.48	20.08	23.84	26.27
Total volume of non-hazardous waste		269.26	252.96	286.79	309.59	329.82
Hazardous waste						
Filtration and absorption materials used	31435	5.02	4.96	0.63	1.38	0.00
Halogen-free solvent mixtures	55370	1.31	3.02	9.74	1.08	0.29
In-process fluids containing solvents	55404	111.72	99.08	103.88	120.85	116.18
Waste oils	54102	1.40	1.34	0.91	1.85	1.10
Lab wastes and chemical residues	59305	0.01	0.00	0.13	0.10	0.01
Total volume of hazardous waste		119.46	108.39	115.29	125.25	117.57
Total annual waste volume		388.72	361.35	402.08	434.83	447.40
Relative waste volume (%)**		15.16	13.19	13.22	16.12	16.76

* Determined by conversion

** Indicator referred to jointing sheets sold

Waste is loaded at the collection point

We Drink to That!

At KLINGER Dichtungstechnik, the water topic is listed under both the direct and the indirect environmental aspects.

In other articles of this Environmental Statement, we have already addressed the direct effects of our processes on the water. It is rather obvious due to our water consumption and the produced wastewater. However, the indirect impact on the water quality caused by our products during their use is a different matter. Our gaskets are often used in the area of drinking water supply or generally in connection with water. In this context, it is crucial that no substances, no matter how small, are released into the water. The corresponding requirements have been rigorously increased in recent times. Against this backdrop, the KLINGER Dichtungstechnik development department has developed a new material that, on the one hand, only comprises raw materials assessed as safe while, on the other hand, it has been proven that it does not have a negative impact on the water. These properties are examined and verified by accredited testing bodies. With our products, we contribute to maintaining the high water quality in the company also beyond our direct sphere of influence.

E-Learning – The KLINGER® Sealing Academy

Digitisation is becoming increasingly important, and with our e-learning program we are taking a big step forward. But how does that help the environment?

As KLINGER Dichtungstechnik, we always try to sell solutions and not just products. Over the years, we have noticed that it is difficult to recommend solutions if the necessary product knowledge is lacking. There are two ways for building up and expanding knowledge: either by a lot of travelling to provide on-site training or by offering extensive e-learning that covers the entire area of static gaskets. Starting with "What is a gasket?", followed by information on various static flat gasket materials through to the choice of the right gasket. Finally – and no less important – various key industries are described.

Choosing the right gasket seems easy at first glance, but it has a major impact on the end customer. Possible influences of poor gasket selection include increased volatile emissions, gasket failure and even catastrophic accidents with serious consequences for the environment and people. In most cases, the cheapest gasket is not the most cost-efficient gasket over its entire service life (see Total Cost of Ownership or TCO).

E-learning gives us the opportunity to train new and existing employees as well as sales partners worldwide and thus to do something to protect our environment in addition to selecting the right sealing solution.

Smartly Controlled Compressors – Energy Savings

To exploit possible energy saving potentials in the best possible way, compressed air generation plants at KLINGER Dichtungstechnik are upgraded to the latest standard.

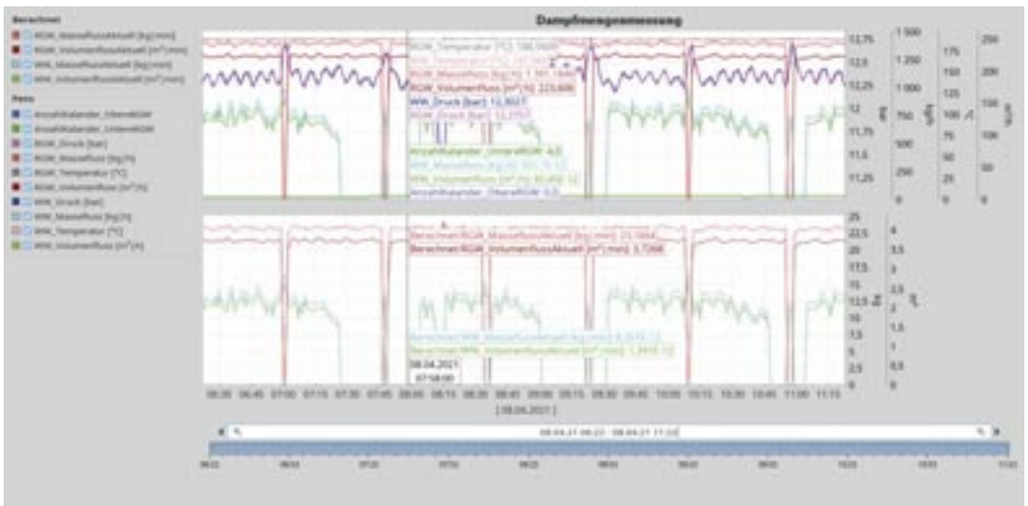
At KLINGER Dichtungstechnik, compressed air is generated using three different screw-type compressors. The latest addition to this machine park is a speed-controlled compressor, which can provide the power depending on production needs. In addition, a smart compressor control was installed to ideally implement the energy-saving potential of the entire compressor fleet. This control and regulation unit makes it possible to operate the individual compressed air generators in the cascade process system in an economical and material-friendly manner. In addition, the air quantities produced and then consumed are recorded so that further optimisation potential can be identified. “Through measures like these, it is possible to further reduce energy consumption in the future, increase output and protect the environment,” maintenance manager René Blumauer states.

René Blumauer in front of the new compressor

Everybody Has to Let Off Steam Sometimes – But Measuring and Recording it is an Advantage

As part of a more detailed documentation of the in-process fluids used, KLINGER Dichtungstechnik has measured and documented steam consumption since September 2019.

2 steam quantity measuring devices are used for this, which document the main consumers of this in-process fluid: the calendering shop and the recovery plant. At minute intervals, a measured value is created and stored in a database. The measuring devices used permit measurement and recording not only of the consumption, but also of the steam temperature and pressure. The consumption can be measured both in kg/h and in m³/h. To generate a complete documentation, all available values are recorded; refer to the figure. To ensure a meaningful evaluation of the data in the future, the calenders active at the time of the measurement are also recorded. The consumption can thus be compared directly with the production. In addition to measuring the steam quantity, measurement of the heat quantity for the main consumers and gas metering for the two industrial boilers are also planned and have already been implemented in part.



Energy Efficiency is the Law

According to the Austrian Energy Efficiency Act, major companies are now obligated to operate a certified energy or environmental management system, or alternatively to arrange for an external energy audit.

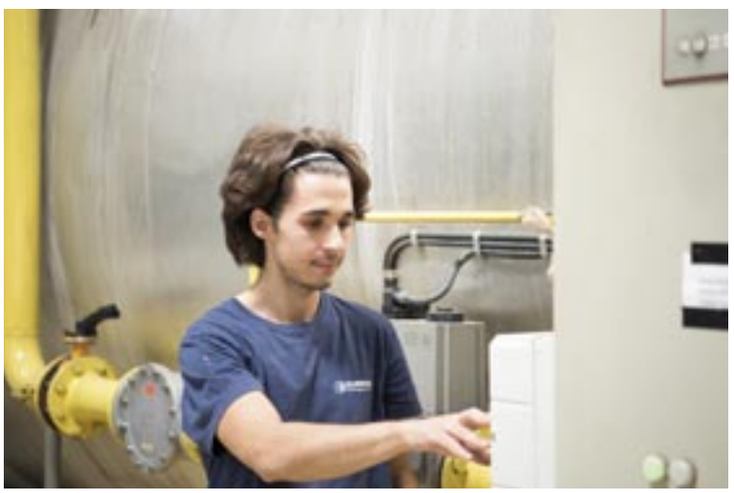
All KLINGER companies based in Austria were assessed together to determine whether KLINGER is considered a major company. Following this approach and subject to these standards, KLINGER is considered a major company and therefore had to complete an external energy audit. At this point, the attentive reader might ask: Why do we need an external audit if, alternatively, an Environmental Management System (ISO 14001 and EMAS in the case of KLINGER Dichtungstechnik) with an internal audit would suffice?
The answer is: because all KLINGER companies based in Austria had to operate such type of management system in that case. This means that an external audit is required after all.
In autumn 2019, the audit was carried out at all KLINGER companies based in Austria. During the audit, the energy efficiency of three areas was scrutinised: Processes, buildings and transport. The energy share of the transport division, i.e. fuel, was so low that it was not classified as a major energy consumer and was therefore not analysed in more detail.
In February 2020, the most important observations made by the auditors were presented internally to our technical managers. As follow-up measures, electricity measurements were carried out in order to determine unnecessary consumers of the base load. Furthermore, it was possible to reduce the exhaust gas temperatures of the steam boiler. A leak detector for the detection of compressed air leaks was also tested since the generation of compressed air is very energy-intensive. In this connection, the optimisation of the flow and return temperatures of the heating circuit for the building should also be mentioned.

David Karnthaler monitors energy use

Boiler Optimisation for Efficient Operation

Optimising the boiler to achieve the best efficiency possible

Steam generation for the production plants and the provision of heat for all heating circuits at the KLINGER location in Gumpoldskirchen are produced and distributed in a separate boiler house. The 3-pass steam boilers installed there deliver a total output of over 10 megawatts and are fired with natural gas.
To minimise emissions and consumption, the latest technologies and control elements have been installed. The latest optimisation involved the installation of an O_2 probe in the exhaust line and a speed-controlled burner fan motor (frequency converter). This can improve the firing efficiency, minimise the residual oxygen, optimise the supplied air amount and reduce noise emissions in the boiler house. This improvement contributes to a reduced use of electricity and natural gas, optimises the utilisation of the necessary resources and improves the working conditions for the technicians on site.



Steam generation in the capable hands of Cem Karaca

ELECTRICITY CONSUMPTION IN 2020

kWh	%	
10,119	0.32	Purchasing/warehouse
9,230	0.29	Laboratory
33,718	1.07	Personnel administration
7,466	0.24	Maintenance
251,944	8.02	Pressurized air
318,512	10.14	Boiler room
7,533	0.24	Pilot plant
332,334	10.58	Mixing
938,876	29.88	Calendering
15,750	0.50	Finishing
39,004	1.24	Ethanol recovery
737,642	23.48	Toluene recovery
39,540	1.26	Mixing – Topchem
296,979	9.45	Calendering – Topchem
64,134	2.04	Furnaces – Topchem
14,795	0.47	Management
24,210	0.77	Packing
3,141,787	**100.00**	**Total consumption**

WATER CONSUMPTION IN 2020

m^3	%	
1,488	1.13	Boiler room
1,833	1.39	KM mixing
128,203	97.47	Calendering
6	0.00	Ethanol recovery
2	0.00	Toluene recovery
131,532	**100.00**	**Total consumption**

GAS CONSUMPTION 2020

Nm^3	%	
1,310,182	89.97	Boiler room
145,363	9.98	Topchem
658	0.05	Third-party consumption
1,456,203	**100.00**	**Total consumption**

	2016	2017	2018	2019	2020
Raw material use (t)	2,912	3,141	3,473	3,078	3,062
Water consumption (m^3)	111,709	117,985	134,178	130,009	131,532
Natural gas (MWh)	14,021	15,311	15,305	16,071	16,448
CO_2 emissions from natural gas (t)	3,332	3,645	4,184	3,897	3,988
Electrical energy (MWh)	2,933	3,062	3,315	3,130	3,142
CO_2 emissions from electricity generation (t)	0	404	0	0	0
Total energy (MWh)[2]	**16,954**	**18,373**	**18,620**	**19,201**	**19,590**

	CO_2-equivalent[1]	CO_2-emissions
Natural gas	2.74 kg/Nm^3	3,988 t

1 Source of data: UBA 2020 "Total emission factor".
2 Sum of natural gas and electricity

Comment

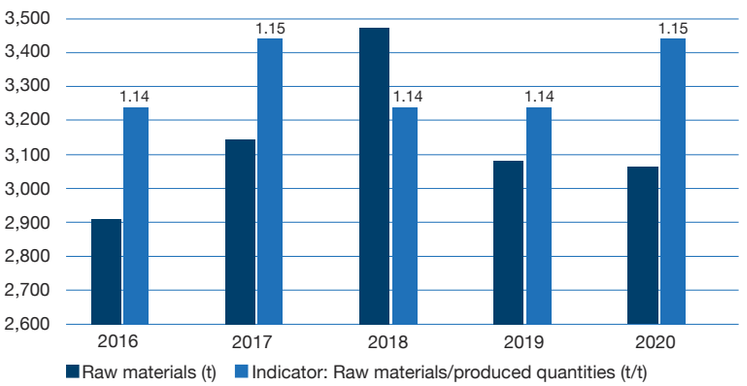
Compared to the last Environmental Statement, the reference value on that the key indicators are based was changed from the quantity of jointing sheets sold to the quantity of jointing sheets produced. This change avoids inaccuracies due to stock additions and stock removals. The graphics show consistently good values for environmental performance such as raw material consumption, solvent recovery rate and use of regenerate. The solvent recovery rate has already reached its technical limit and therefore cannot be further optimised at reasonable cost. In the area of regenerate use, despite our efforts (see environmental goals), we were unfortunately unable to find a new partner for additional stamping residues in order to improve this indicator. A higher raw material utilisation would be possible, among other things, through fewer rejects. Unfortunately, this is currently hindered by the massively increasing demands on the part of customers for a flawless appearance of jointing sheets.

The increasing relative water requirement is due to the rising temperatures. The energy flow diagram shows that by far the greatest amount of water is required for cooling purposes in the calendering shop. The amount of hazardous waste materials has been kept constant for some time. Since the 2018 reporting year, we have also reported the NO_x emissions produced (see separate article). The two emitters, steam boiler and thermal oxidation, are shown separately in the graph. Since no measurements were carried out on the RTO in 2016, no NO_x emissions can be reported for that year.

A connection with the quantities produced can be noted for the two main sources of energy: electricity and gas. With higher quantities of products produced, energy efficiency also increases and vice versa. The relative key figures (related to the quantities produced) show a dependency on the absolute quantity produced. The CO_2 emissions largely correlate with the gas consumption.

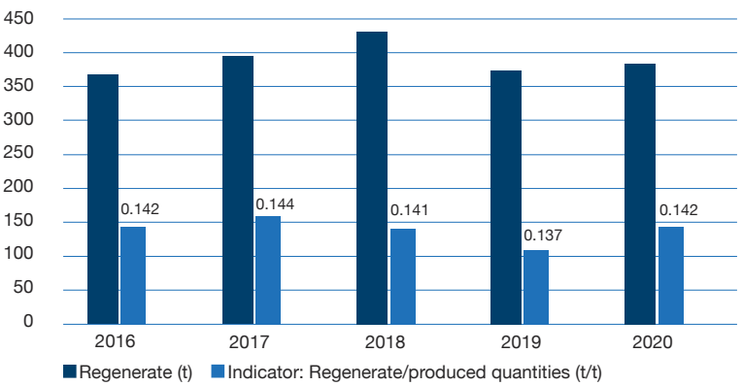
a) INPUT: Raw materials, regenerates, electricity, gas

Raw material consumption (t)

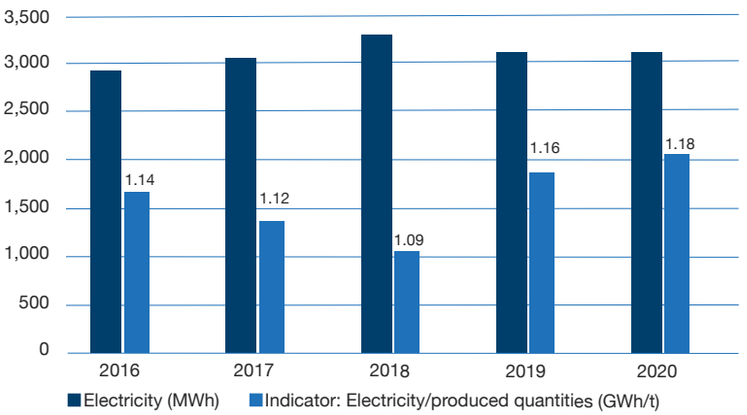


Regenerates (t)

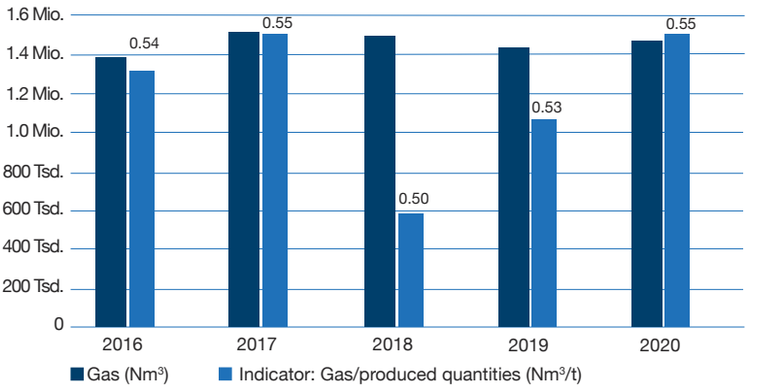
Regenerates are only used at KLINGERSIL®



Electricity consumption (GWh)

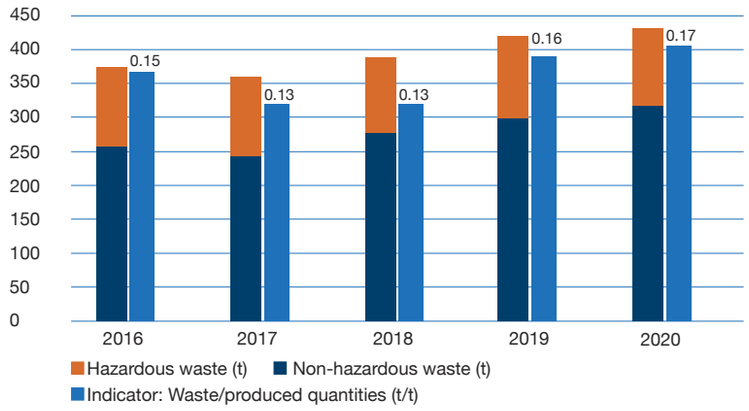


Gas consumption (Nm³)

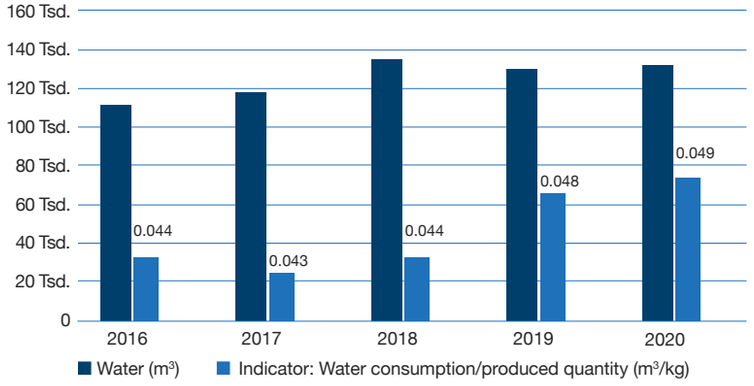


b) OUTPUT: Waste, water, CO_2, solvent emissions, NO_x

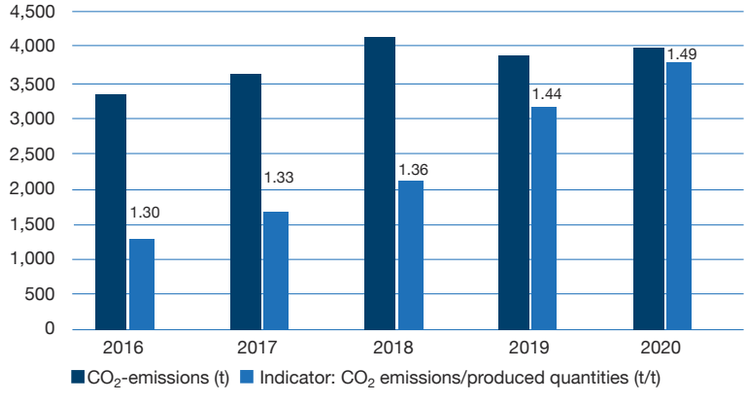
Waste (t)



Water consumption (m^3)

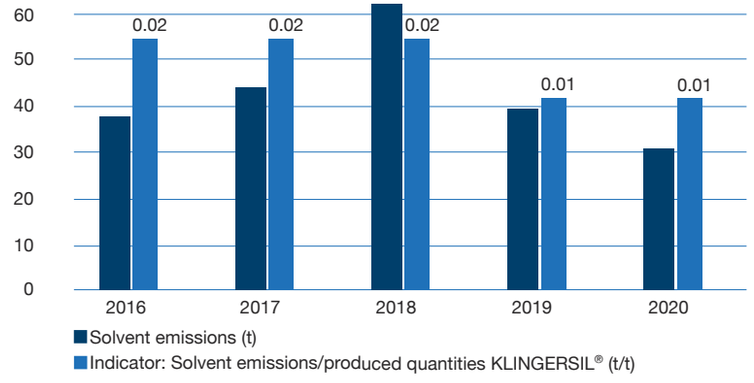


CO_2 emissions (t)

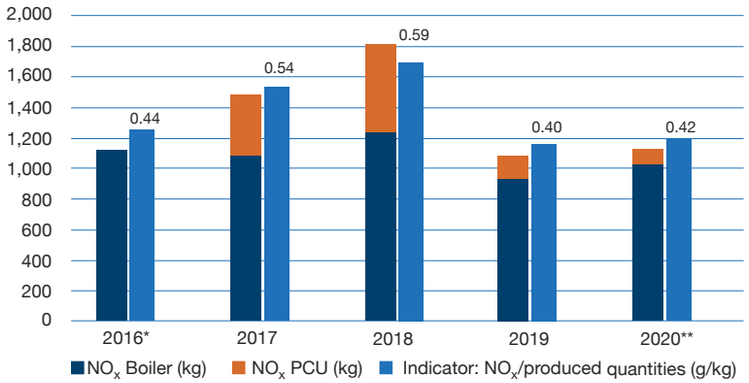


Solvent emissions (t)

Solvents are only used at KLINGERSIL®



NO_x emissions (kg)



* NO_x-data only from steam boilers, as no measurement was carried out on the PCU

** No data of RTO available as not yet in productive operation

KLINGER Environmental Word Search Puzzle

Find the hidden words!

Z	H	J	X	N	E	Q	S	D	A	R	K	U	M	J	O	I	U
U	E	P	K	H	R	N	I	Z	Q	S	E	L	W	A	S	T	E
D	N	T	A	T	U	E	V	M	T	M	N	C	J	Z	J	K	I
V	E	N	U	B	V	U	S	I	P	A	B	N	O	Z	B	O	E
E	R	S	D	B	Y	O	R	O	R	R	D	K	B	V	M	N	D
A	G	A	I	C	F	Q	K	B	U	O	O	H	N	K	E	O	V
U	Y	H	T	F	A	K	A	J	K	R	N	V	I	Q	U	R	V
X	N	H	R	S	R	N	K	V	P	V	C	M	E	W	W	T	Y
U	R	X	G	A	S	K	E	T	J	D	I	E	E	M	E	T	R
N	X	E	M	I	S	S	I	O	N	S	K	I	S	N	E	D	V
H	R	E	S	P	O	N	S	I	B	I	L	I	T	Y	T	N	J
V	K	L	I	N	G	E	R	G	R	U	H	D	E	M	A	S	T

Words: → horizontally, ↓ vertically, ↘ diagonally

AUDIT ENERGY RESOURCES IMPROVEMENT

GASKET ENVIRONMENT KLINGER RESPONSIBILITY

EMISSIONS WASTE EMAS RECOVERY

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VERIFIER'S STATEMENT

Dipl.-Ing. Dr. Kurt Kefer,
chief EMAS environmental verifier and authorised signatory
of the environmental verifier organisation

TÜV SÜD Landesgesellschaft Österreich GmbH,
Franz-Grill-Straße 1, 1030 Wien
[registration number AT-V-0003]

declares to have verified whether the site(s) or the entire organisation as indicated in the environmental statement of the organisation

Rich. KLINGER Dichtungstechnik GmbH & Co KG
Am Kanal 8–10, 2352 Gumpoldskirchen
with registration number AT-000096

meet all requirements of Regulation [EC] No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme [EMAS], as amended by Regulation [EU] No 2017/1505 and No 2018/2026.

By signing this declaration, I declare that

- the verification and validation have been carried out in full compliance with the requirements of Regulation [EC] No 1221/2009, as amended by Regulation [EU] No 2017/1505 and No 2018/2026,

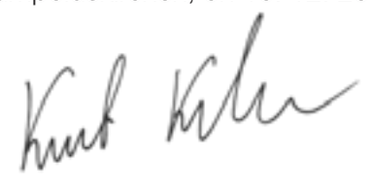
- the outcome of the verification and validation confirms that there is no evidence of non-compliance with applicable legal requirements relating to the environment,

- the data and information of the environmental statement of the organisation reflect a reliable, credible and correct image of all the organisation's activities within the scope of the environmental statement.

This statement cannot be equated with an EMAS registration. EMAS registration can only be carried out by a competent body in accordance with regulation No 1221/2009. This statement shall not be used as a stand-alone basis for informing the public.

The environmental verifier organisation **TÜV SÜD Landesgesellschaft Österreich GmbH** is accredited for NACE code 23.99 by decision of the Federal Ministry of Sustainability and Tourism (previously: Agriculture and Forestry, Environment and Water Management).

Gumpoldskirchen, on 10. 12. 2021



Chief environmental verifier and authorised signatory
of TÜV SÜD Landesgesellschaft Österreich GmbH
Franz-Grill-Straße 1, 1030 Vienna

The environmental statement will next be validated in 2022.