

KURZ & Environment





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Preface

Dear reader,

KURZ makes enormous efforts in the areas of sustainable environmental protection, conservation of natural resources, and waste avoidance.

We bear environmental protection in mind from development to purchasing and from production to waste disposal. Energy and materials are used sparingly to minimize environmental impact. Waste is minimized, and recycled when unavoidable. And we make no distinctions between our plants in Germany, Switzerland, USA, Malaysia and China. Environmental concerns are the same everywhere, thus our strategies and measures are identical worldwide. But we're not satisfied with that.

Shortage of resources, rising energy costs and climate change are forcing us to make an even more sustainable commitment to these key issues. It is our goal to take no more from Mother Nature than she can regenerate.

This brochure provides information on the most important measures taken by LEONHARD KURZ.

Adherence to high standards worldwide for environmental protection and occupational safety:

Not only do we ensure a very high level of occupational safety and health for all employees, we manage to constantly improve environmental performance by optimizing processes and procedures.

Innovative product solutions:

Our products provide solutions for enhancing surfaces. In comparison to conventional decoration procedures, they emit less greenhouse gases and are applied dry with lower overall energy input.

Sustainable development:

The challenges we are currently and vigorously pursuing involve reintroducing substrates into material life cycles and making our processes and manufacturing methods yet more efficient by tapping technical and organizational opportunities.

We hope you enjoy your reading.


W. Kurz


P. Kurz



Company profile

Top quality coating technologies

KURZ is the global market leader in thin-film technology and distributes a range of high quality products, consisting of foils and machines, for enhancing, decorating and labeling products.

In order to be successful in an increasingly global economy, companies must understand and implement the concept of urbanization. KURZ stands by its customers with 23 subsidiaries throughout the world and a local service team in every country. True to the principle, Think globally, act locally.

In addition to standard foils, KURZ also fabricates products specifically developed for the applications of its customers. Whether design and color, ready-made products or designated uses – customer specifications are the basis for experienced designing engineers, and designers interpret individual color requests and design specifications.

Tradition and progress

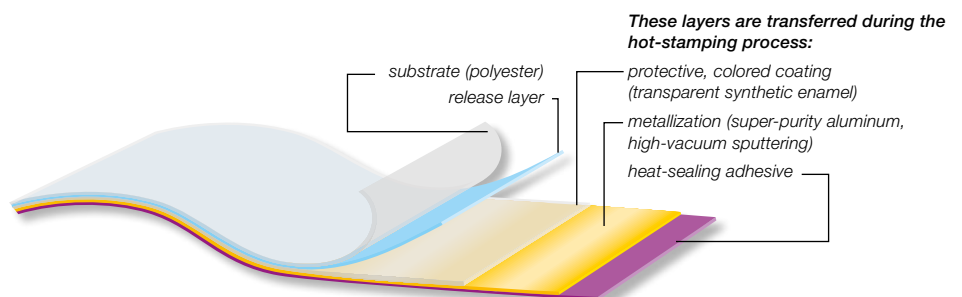
Tradition and progress are not contradictory at KURZ, but rather company philosophy.

In addition to the competence and experience gained in over 100 years of company history, ongoing product innovation means KURZ is racing into the future. KURZ has developed into an important partner for business, government and research in the fight against counterfeiting and in printed electronics.

- polymer RFID tags
- antenna technology
- printed solar cell technology
- KINEGRAM® Zero.Zero technology

Consistently high standards

KURZ falls back on more than 100 years of experience to develop all process technologies itself. Our know-how of production machines delivers high product consistency, at the same high level worldwide. KURZ considers itself an all-round solution provider for finding perfect coating solutions. Efficient use of foil, tools and machine is furnished right from the start. Training, installation and maintenance are thus included in the scope of service, as are special machines developed for specific requirements.



Typical composition of a LUXOR®/ALUFIN® hot stamping foil for the graphic industry



KURZ core competencies

Best practice for every market requirement

- most extensive processing spectrum
- coatings developed in-house
- consistent production output when foil characteristics do not vary
- rigorous quality management
- appropriate foil fabrication

Worldwide service

- reliable logistics with global logistics concept
- well positioned round the world
- Asia experts for over 40 years
- application technology support team

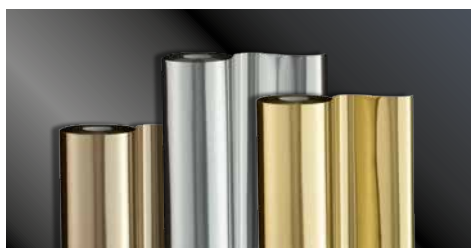
Technologies for today and tomorrow

- fit for the future thanks to ongoing development of machines, foils and technologies
- a feel for trends with in-house design department
- our future print prospects: printed electronics and function

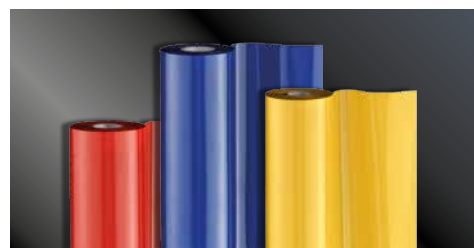
Surface decoration from KURZ

People come into contact with enhancements from KURZ on an almost daily basis, usually without being aware of it; such as:

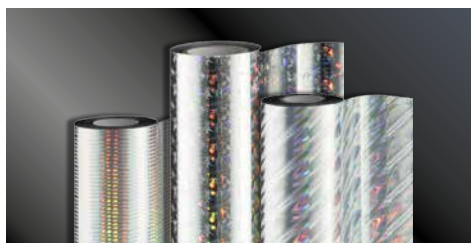
- paper and plastic packaging
- books and magazines
- household and electronic devices
- cigarettes and tobacco products
- tickets and cards
- labels
- textiles
- furniture
- picture frames
- interior and exterior designs for automobiles
- cell and smartphones
- flat-screen television sets and laptops



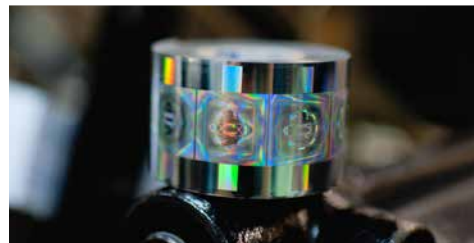
metallized surfaces



pigmented surfaces



diffraction surfaces



Holograms



Environmentally relevant information about stamping foils

Stamping foils represent no hazardous materials due to the Ordinance on Hazardous Substances (11/2010). According to REACH they have to be classified as articles (1907/2006/EG) and therefore are not subject to registration. KURZ does not use any raw materials containing volatile, ozone depleting halogenated hydrocarbons, cadmium, lead, mercury or hexavalent chromium for the stamping foil production.

The vast majority of our stamping foils fulfill the requirements of the various national and international regulations, taking into consideration their formulations, the specifications provided by raw material suppliers and their usage in their respective specialized applications.

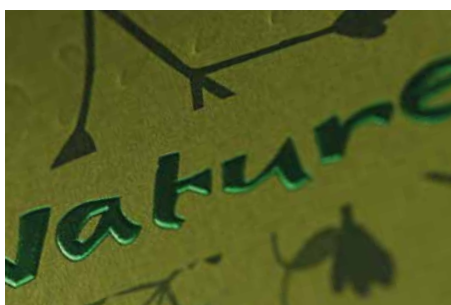
Some examples are:

- EU Packaging Directive 94/62/EC and CONEG
- Restriction of Hazardous Substances Directive – RoHS (2011/65/EU)
- Restriction on bromine compounds (2003/11/EC)
- 2005/84/EC no phthalates
- 2006/122/EC no perfluorooctane sulfonates
- No CMR substances (materials that are carcinogenic, mutagenic or toxic for reproduction) that belong to the Category 1, 1A or 1B or to the hazard class Acute Toxicity (Category 1-3) according to the CLP Regulation (EC) No. 1272/2008 including its amending regulations
- None of the approval-requiring substances listed in Annex XIV of REACH in its version 06/2017
- No substances depleting the ozone layer. Stamping foils of KURZ fulfill the requirements of the Regulation (EC) No. 1005/2009 and are no products as described in Article 17 (export) of this regulation
- EuPIA's (European Printing Ink Association) raw materials exclusion list
- In the automotive area, the requirements of the End-of-Life Vehicles Directive of 2002 (2000/53/EC), which requires the individual components to be stored in the IMDS system to ensure traceability during vehicle disposal
- In the food sector (1935/2004/EC; 10/2011/EU) and the toy industry (2009/48/EC; EN71/3:2013), KURZ will provide assistance with external certifications for his qualities upon request



Conflict minerals:

In regards to requirements stipulated in the Dodd-Frank Act (Section 1502 – “Conflict Minerals”), KURZ continues to work with our suppliers to trace raw material content determining whether minerals from mines or uncertified melting plants located in conflict regions are utilized. No conflict minerals originating in the Democratic Republic of Congo and adjoining countries are used for the production of KURZ foils intentionally. KURZ requests our suppliers to supply written confirmation of steps taken to prove the origin of material contents classified as conflict minerals.



EU chemicals regulation REACH

Protection of human health and environment



The current status at LEONHARD KURZ (June 2015)

KURZ exclusively uses raw materials which are pre-registered respectively which are already registered, also for foils which are produced in our non - European plants. To all our suppliers we declared our applications of the raw materials according to guidance on information requirements and chemical safety assessment within the time limit.

According to the EU regulation 1907/2006 dated 18. December 2006 (REACH REGULATION), foils are classified as articles and therefore are not subject to registration. Therefore, the preparation of a safety data sheet is not mandatory for our foil. For the customer using the foil this means that the duty to check whether special requests or restrictions resulting from the used raw materials have to be considered is not applicable. Additional the foil (article) fulfills the requirements of article 67 (REACH REGULATION) and complies with the conditions of the restrictions listed in Annex XVII.

KURZ as a Downstreamuser uses to the information of our suppliers for the foil production no raw materials which are subject to authorization requirement mentioned in the Annex

XIV (updated on 2014 - 08 - 19) of the REACH regulation.

Also no substances on the Candidate list (Substances of Very High Concern) as updated on 2015 - 06 - 15 are included in KURZ foils in a concentration above 0.1 % weight by weight of the product.

If either by modification or reclassification of raw materials the duty to pass information about substances in articles (REACH / article 33; >0,1% weight by weight substances to which authorization will apply) will be required, we will inform you immediately.

If customers use our hot stamping foils in the proper manner to finish products, those foils are in conformity with REACH and no further activities regarding REACH regulations are necessary.



REACH:

Registration,
Evaluation and
Authorisation of
Chemicals

What is REACH?

The official purpose of REACH is to protect human health and the environment while guaranteeing the free movement of substances within the internal market, improving the competitiveness of the chemical industry, and fostering innovation. Adherence to this ordinance will be monitored by the European Chemicals Agency (ECHA) in Helsinki.

REACH is founded on the principle that manufacturers, importers and downstream users need to guarantee that they are manufacturing,

putting on the market and using substances that will not negatively impact human health or the environment. Its provisions are based on the duty of care principle.

If a manufacturer does not comply with his registration or approval obligations, he will no longer be allowed to market these substances or preparations. The end-user must not use them either.

Who is affected?

Manufacturers – importers – downstream users

Who has to register or obtain approval for his substances?

All manufacturers or importers within the EU who:

- manufacture or import substances in quantities > 1 t/a (registration),
- release substances under normal conditions of use (registration),
- where the substance is listed in Annex 14 of the REACH ordinance and is present in end products at a concentration > 0.1 percent by weight (approval).

Downstream users are subject to a disclosure and monitoring obligation.

- They need to check the safety data sheet (SDS) and implement any risk management measures specified therein.
- They need to inform their suppliers of the specific mode of use of the material being purchased.
- If they are creating their own preparations, they need to produce their own SDS and supply it to their customers.

Environmental management without borders

As a globally active stamping foil manufacturer, we are keenly aware of our responsibility toward people and the environment. Our efforts to minimize the environmental impact of our production processes are ongoing throughout the world. The environmental standards and objectives we set for ourselves are equally high for all our production sites and cross national, cultural and legal boundaries. There are central guidelines and environmental directives, for example, on raw material selection and handling, and which have been issued by corporate management and are applicable worldwide. In order to meet these standards, reach objectives and realize continuous improvement, each site has set up an environmental management system and appointed an environmental officer who reports directly to management.

Our EHS model applies to all employees of the KURZ Group, and is the basis of environmental-, energy- and occupational health- & safety-policies at our various subsidiaries throughout the world:

We motivate our staff to commit to environmentally-aware and safety-conscious behavior, to take responsibility on their own and to make healthy choices.

We provide safe work places. Conditions which are hazardous to safety or health are identified and hazards eliminated or, at the least, minimized wherever possible.

We take precautions to reduce the environmental impact of our operations and to provide a healthy and safe working environment for our employees

We incorporate economical use of resources and energy, in production as well as in product development and plant layout.



Commitment in numbers

Ongoing, environmentally-relevant optimizations involve the following areas in particular:

Energy

Optimization of thermal exhaust purification system (Technical Instructions on Air Quality Control), economization of gas, worldwide service team, energy efficiency studies at the sites in China, Sulz-

bach-Rosenberg and Fuerth, Germany

Emissions

Adherence to limit values, measurement taking, worldwide comparison

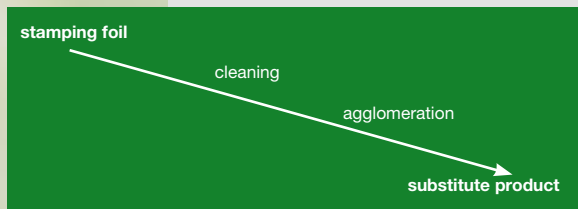
Waste

Measures for reducing quantities via brisk information exchange, recycling instead of disposal

Minimization of emergencies

Foil recycling

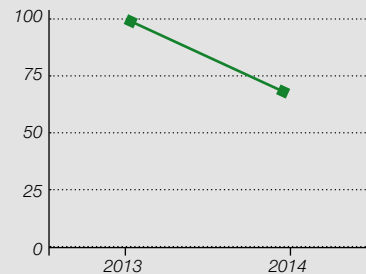
China



At our KST production site in China, 100 % of foil waste has been recycled since May 2008.

CO₂-equivalent value in %

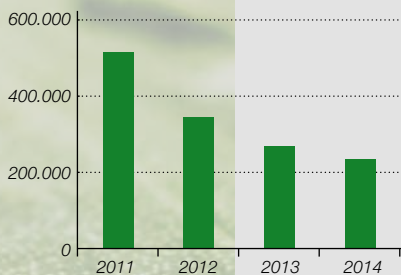
Standort Doebeln



The exhaust incineration unit was replaced in spring 2014 with a new, modern one. Because of the higher efficiency, the CO₂-equivalent value of the total gas consumption could be reduced about nearly 37 %.

Gas consumption OVD in kWh

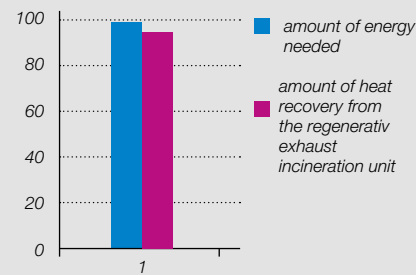
Switzerland



The replacement of the thermal oxidizer by a new regenerative unit in 2012 led to a clear reduction of gas consumption. Optimization of the production process reduced it additionally.

Thermal energy demands in %

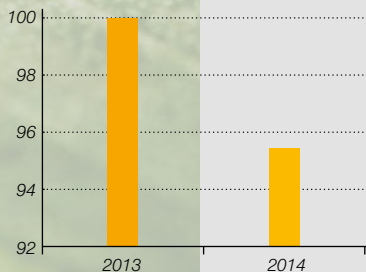
Malaysia



Efficiency of oxidizer unit and the solvent load of the exhaust air are optimized. This allows us to run the regenerative oxidizer unit in an autothermic mode and additional we can use the excess energy (by heat recovery of the cleaned air) to supply our production processes with heat for more than 90 %.

CO₂-emissions in %

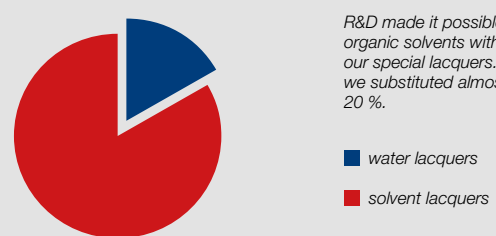
Sulzbach-Rosenberg



With various efficiency measures the total CO₂-emissions of the plant could be decreased about nearly 5 % from 2013 to 2014.

Consumption of water based lacquers in %

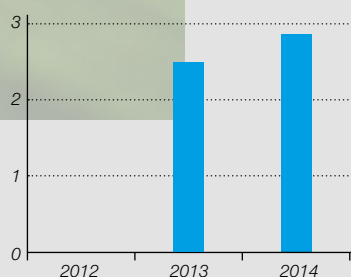
Sulzbach-Rosenberg



R&D made it possible to replace organic solvents with water in our special lacquers. Up to now we substituted almost 20 %.

Reduction of total exhaust flow rate in %

Fuerth



With the goal to minimize the exhaust flow rate we modified control procedures at our production machines over the last 2 years. These optimizations caused a reduction of 3 % of the annual flow. As an additional result of this the solvent fraction of the exhaust increases and the oxidizer units can run more efficient.

New mixing area

USA



At KTP USA a new lacquering mixing room was built. The room is designed to mix lacquers in enclosed cabins versus an open room. This improved worker safety and reduced exhaust flow requirements of the larger open space. This improves incinerator efficiency.

Certificates

The effectiveness of our management systems have been tested and verified by external inspectors at our production sites in Germany, Switzerland, China and Malaysia.

Our environmental management system is ISO 14001-certified, our energy management system is ISO 50001-certified and our occupational safety management system is OHSAS 18001-certified.





ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Registration No. 02114E10136R2M

This is to certify that the environmental management system of

KURZ Stamping Technology (Hefei) Co., Ltd.

Registration Address: Jinxu Avenue, Economic and Technological Development Zone, Hefei City, Anhui, P.R. China
Office/Production Address: No.158, Jinxu Avenue, Economic and Technological Development Zone, Hefei City, Anhui, P.R. China

is in conformity with

GB/T 24001-2004/ISO 14001:2004

This certificate is valid for the following scope:

Development, Production, Sales and Related Management Activities of Stamping Products.



Zertifikat

Die SQS bescheinigt hiermit, dass nachstehend genanntes Unternehmen über ein Managementsystem verfügt, welches den Anforderungen der aufgeführten normativen Grundlagen entspricht.

OVD KINEGRAM

Member of the KURZ Group

OVD Kinegram AG
6301 Zug
Schweiz

Zertifizierter Bereich

Ganzes Unternehmen

Tätigkeitsgebiet

Entwicklung, Herstellung und Vertrieb von optischen Sicherheitselementen für Banknoten und Dokumente

Normative Grundlagen

ISO 9001:2008 Qualitätsmanagementsystem
ISO 14001:2004 Umweltmanagementsystem

Schweizerische Vereinigung für Qualitäts- und Management-Systeme SQS
Bernstrasse 103, CH-3052 Zollikofen
Ausgabedatum: 17. November 2013

Dieses SQS-Zertifikat hat Gültigkeit bis und mit 16. November 2016
Scope-Nummer 9
Registrierungsnummer 14922



SQS 001



Swiss Made



Partner of

on May 22
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for Mainte

BUREAU VERITAS
Certification



Certification

Awarded to

KURZ PRODUCTION (M) SDN BHD
LOT 22, SERI ISKANDAR TECHNOLOGY PARK,
32610 SERI ISKANDAR, PERAK DARUL RIDZUAN, MALAYSIA.

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standards

ISO 14001:2004

Scope of supply

MANUFACTURE OF STAMPING FOILS.

Certification Cycle Start Date: **18 June 2014**

Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on: **17 June 2017**

Original Certification Date: **17 June 2008**

Certificate No: E130002

Version 0, Revision date: 18 June 2014

Ir. Hj Othman Abdul Kadir

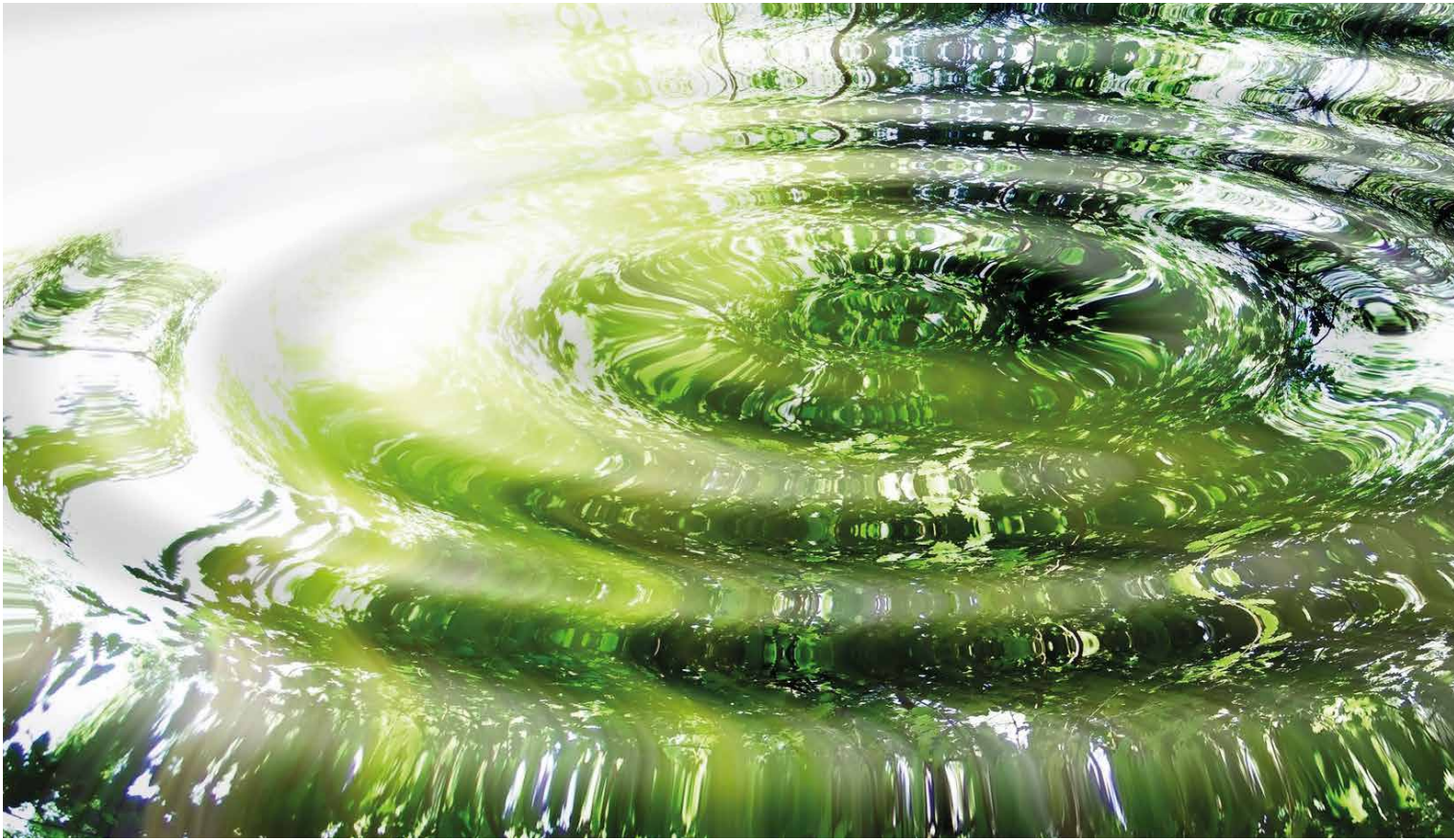


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Certification body address: Brandon House, 180 Borough High Street, London SE1 1JJ, United Kingdom
Local office: Bureau Veritas Certification (Malaysia) Sdn Bhd

Level 11, Menara Djarum
Jalan Sultan Hassanudin
50500 Kuala Lumpur
Malaysia

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation. To check this certificate validity please call: +603 2367 2888



Sustainability

Are we environmentally sustainable as a technology provider?

Recycling is a major focus of the sustainability program.

Its basic prerequisite is that no toxic materials be used.

Sustainability begins with research and development. Strategy dictates that all formulations and foil formulations comply with standards and regulations for manufacturing and for consumer goods; e.g. RoHS (2011/65/EU), EN 71/Part 3 (88/378/ EWG).

The decorative layers applied are extremely thin. And the products enhanced with stamping foil can also be recycled without reservations, as confirmed in the PIRA report on "Repulpability of Foil-Decorated Paper".

Energy recycling of the PET foils employed is outstanding. The high heating value allows for fueling specially equipped facilities which would normally use gas, coal or oil. Recycling of PET foils is also possible, but the rest of the decorative layers must be properly disposed of first. We are working on this process.

Sustainability is more than 'just' recycling.

Our company meets the standards for quality, environmental responsibility, health management and minimization of energy consumption.

Emissions are a high priority in sustainability:

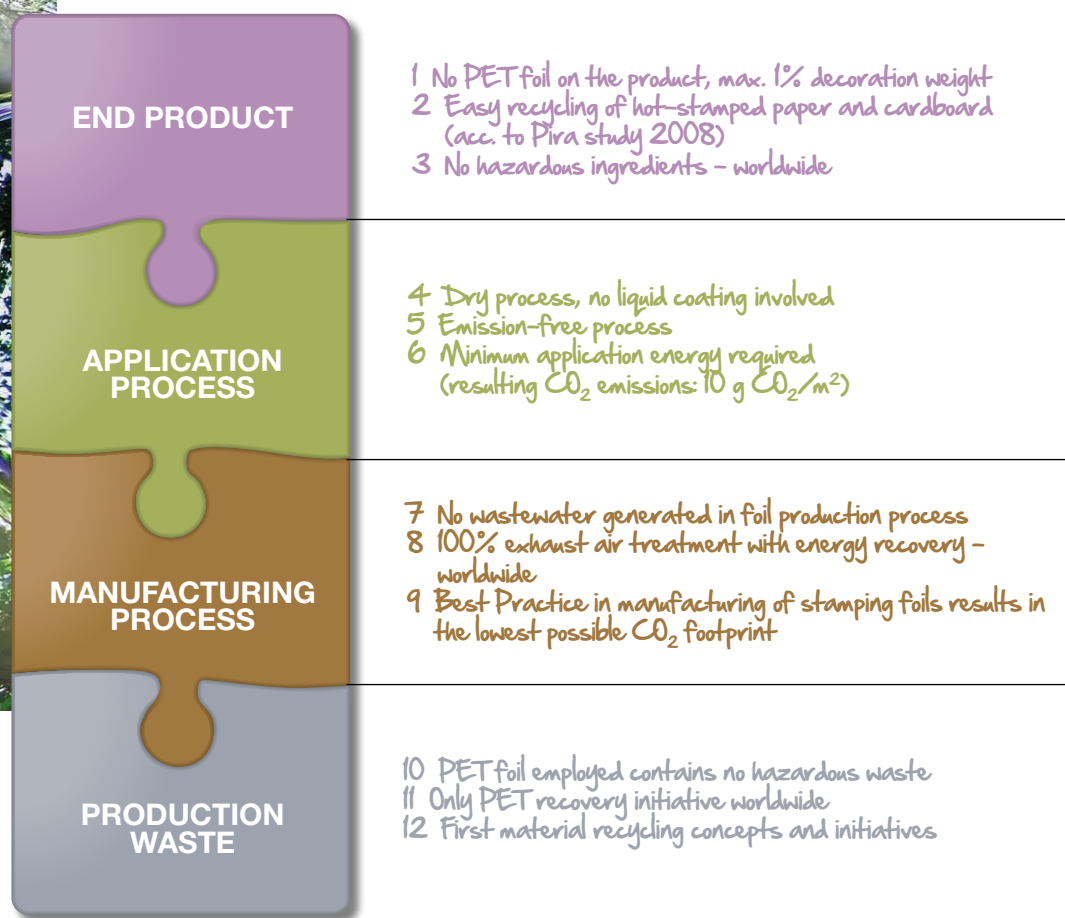
We not only meet the stringent requirements of the Federal Emission Control Act, we continually improve ourselves. We are proud of the following accomplishments:

- We are 85 % below the legally mandated emission values
- All process steps in the manufacture of our product are critically evaluated and optimized on an ongoing basis
- The application of our stamping foil onto customer medium is an emission-free process



The Product

"The four elements of sustainability"



Greenhouse gases emitted by the burning of gas and other fuels for energy use, as well as by electric energy consumption, are further key aspects in sustainability.

Applying stamping foil requires only a small amount of electric energy, between 25-50 W/ m² for hot stamping and cold foiling.

As to the manufacture of stamping foil, we now require 35 % less energy than was needed 10 years ago. This improvement was brought about by investing in modern production machines, while at the same time having our methods engineers optimize the various manufacturing processes. The solvents required in the production process are recovered in their entirety and fed to our regenerative post-combustion plant. These facilities have been designed so that the energy brought in by the solvents not only suffice for autothermal combustion, but that it cover a large part of the energy required for foil production, thus reducing gas consumption.

Waste handling is also essential to sustainability

Waste avoidance is the top priority. Yet where it is inevitable, we have devised meaningful approaches, such as pretreatment that enables recycling, or even recirculating, of over 90 % of generated waste. Initiatives that reduce waste generation are also an important part of our process development.

Sustainability is not a new challenge for KURZ

More than 40 years ago, issues involving energy conservation, resource management/ material cycles, restrictions on the use of hazardous materials and emission protection were already daily practice, long before regulations such as the Emission Control Act and legislation on hazardous substances came into effect. Since then, the company has steadily advanced its tradition of sustainability with innovative processes and great dedication.

Foil recycling – closing cycles

Waste avoidance is the top job at KURZ. We engage in constant research and develop measures for minimizing the generation of foil waste, without negatively affecting product quality or processability. Examples of implemented measures include optimization of foil widths, use of thin substrate wherever possible, reduction of application weights, and use of polyester off-specification batches for press proofs.

Any unavoidable waste that nevertheless occurs is recycled in an environmentally sound and meaningful way. As a manufacturer of stamping foils, we feel responsible for the fate and behavior of our foil waste. It is important to us to be able to retrace and manage its path to the end. Disposal partners must thus be authorized, and processing techniques must be viable and sensible from an energy standpoint. As a basic principle we only deliver waste to facilities that our qualified personnel has critically assessed and audited beforehand.

The stamping-foil waste we and our customers generate involves a polyester foil with a thin layer of dry coating that is used as a substrate. In other words, a quite common and non-hazardous trade refuse containing no dangerous or toxic substances whatsoever. It could be handled as normal household waste, but that's not enough for us:

our waste should not simply be destroyed; i.e. put to no further “use”, much less cause emissions in its disposal nor be landfilled somewhere. We believe it should be returned to the energy cycle, or better yet, to the material life cycle – we want to close cycles!



Below we provide a short overview of our previous research and initiatives.



Energy recovery

As always, a large part of stamping foil waste at KURZ is recovered as energy. Thanks to the polyester substrate's high fuel value of approx. 34,000 kJ/kg, its fuel mass fraction is very well suited to producing fuel surrogates.

Fuel surrogates are primarily used in the cement industry, but are also employed at power stations, thus substituting and conserving fossil energy sources such as coal and heavy oil. Demand for surrogate fuels has been rising for a few years now, while the prices for energy recovery of such high calorie waste have been sinking. Yet it is difficult to make long-term predictions on future market trends.

Our stamping-foil waste meets the comparatively very strict limit values of surrogate fuels (chlorine, arsenic, etc.).

Recycling

Recirculating waste into material life cycles is the way to go. For this reason we have set the goal of recycling our stamping-foil waste.

There are two different ways to go about this. One is to use the stamping-foil scraps directly as a material for manufacturing of suitable products by an injection molding process. Another is to feed the PET substrate back into the material life cycle by means of an ecological procedure.

The handling and recycling procedures involved must meet our strict environmental standards. Routes must also be kept short in order to prevent unnecessary transport.

We are researching both methods in equal measure. And of course, we are not just focused on our own waste, but on the scraps generated by our customers.

So far we have worked out some approaches. Currently we are testing their economic feasibility.

Carbon Footprint



Currently there is no clear definition for the evaluation of the carbon footprint. Worldwide there are a lot of existing standards to calculate the footprint based on “cradle to grave”. For example, a complete product life cycle can be examined according to the environmental life cycle assessment standard ISO 14040/44 or by the French Standard “Bilan Carbone”, which is limited to the evaluation of the energy consumption.

Presently the ISO 14067 is being developed, based to 90 % on the standard ISO 14040/44. The ISO 14067 considered only the carbon footprint. A draft exists already.

We have determined ourselves the carbon footprints for several foil groups according to the ISO 14040/44 standard. The scope was defined so that it includes the complete life cycle, meaning manufacturing of the resources incl. transportation, manufacturing of the stamping foils and the transportation to the customer as well as the customers’ application of our stamping foil.

When you compare the carbon footprint of foils to the carbon footprint of other decorative methods it is important to consider the complete lifecycle. There is a complex and environmental responsible manufacturing of stamping foils followed by an environmental friendly application process.

Hot and cold stamping foils have smaller carbon footprints compared to other methods such as the application of metallic ink, electroplating or complex varnishing.

Comparing the alternative processes for 1 m² refined surface, you get the following estimation:

With using a stamping foil application for a surface refinement instead of other processes, you improve your carbon footprint about:

| | |
|---|------------|
| Metallic surfaces (e.g. ALUFIN®) | 50% |
| Chromed design | 95% |
| Pigmented surfaces (e.g. COLORIT®) | 80% |
| Refined plastic surfaces by IMD | 70% |

Corporate energy management

Intelligent, sustainable economic activities at KURZ concern also the sector of energy use. Therefore we want to optimize the use of energy from purchasing right up to consumption systematically and permanently. This is not only an effective tool to reduce costs, it also saves natural resources and reduces CO₂-emissions.

For the implementation of this plan we conducted energy surveys using independent experts at several locations. In the year 2014 we integrated an energy management system based on the ISO 50001 standard. This was rolled into our existing environmental management system. We have also set following strategic goals for a sustainable reduction of the yearly specific energy consumption, which we want to attain in year 2017:



| Location | Electricity [kWh/a] | Heat [kWh/a] |
|--------------------|---------------------|--------------|
| Fuerth | -475.000 | -2.500.000 |
| Sulzbach-Rosenberg | -1.200.000 | -10.000.000 |
| Doebeln | -250.000 | -900.000 |

(the data refer to the production volume in the base year)

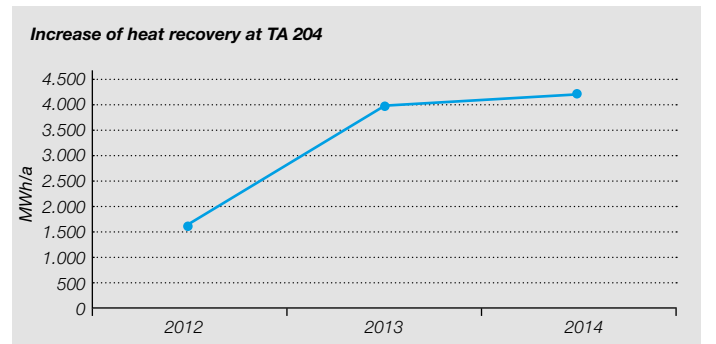
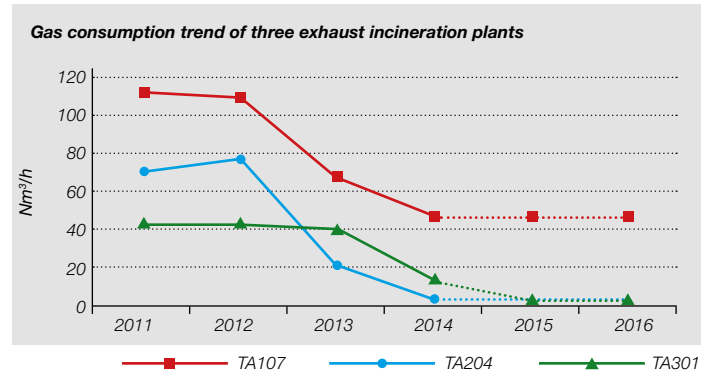
To achieve these goals we make raising efficiency actions continuously, which reduce our specific energy consumption as well.



We are implementing a widespread energy evaluation of our German locations through the setup of an energy measurement system and enormous energy consumption analysis. This allows us to further identify where we can reduce energy.

The efficiency of our exhaust incinerators is of paramount importance due to the large amounts of energy needed to remove volatile pollutant. The incinerators are initially fire with natural gas to get the high temperatures needed to reduce pollutants. Once specific temperatures are achieved the solvent laden exhaust air becomes its own fuel and the plant operates in self-sustained mode, the natural gas stops flowing and excess energy arises.

In years past we performed a lot of optimization measures in this area. Recently trough the change of an inefficient plant or the increase of the efficiency of some plants, the associated amount of gas could be further reduced. This measures also allows us to use the excess energy (by heat recovery of the cleaned air) to supply our production process with heat in Fuerth and Sulzbach-Rosenberg even more. In this way we reduced the gas consumption of our heating boiler significantly.

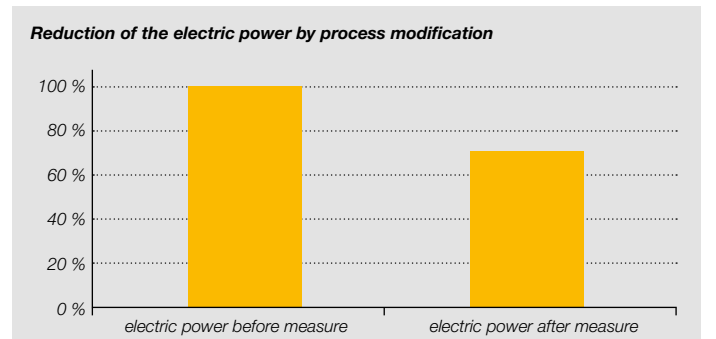


We conserve additionally an important part of gas through optimization measures of the exhaust air flows on our production plants. The annual gas consumption is reduced by 1.4 GWh per year with the implemented measures.

Further measures to reduce the specific energy consumption key are:

- heat recovery
- optimization of process steps
- electric lighting management
- use of energy-efficient drives
- substitution of inefficient devices
- use of a combined heat and power unit

Process modification at one production stage effects a reduction of the electric power of this type of production plant by 30 %.



For the ideal realization of the energy saving measures, an interdisciplinary energy team was established. Furthermore the team is responsible for setting new goals and to define energy activities continuously.





Outlook

The increasing demand for raw materials and the steep price increases in commodity markets worldwide are cause for concern at many companies. If raw material supplies are in peril, the entire value chain can be affected. To make matters worse, industry has till now had to absorb a large part of raw material price hikes itself and could not pass them on. Despite corporate efforts, raw material prices are posing a high risk to the economy.

Without a doubt, energy prices will rise in the long run. When compared internationally, high energy costs for industry signify a growing threat to competitiveness because they increase production costs, on the one hand, and radically diminish consumer purchasing power on the other. The demand

for energy efficient products and efforts to configure production processes still more efficiently stem from high energy prices.

We would like to continue pushing forward and minimizing specific energy consumption associated with the CO₂-emissions. This, especially in respect of the greenhouse gas reduction goal of the Federal Government of Germany till 2020 by 40 % compared with 1990.



KURZ is a major international supplier of thin layer technology with more than 5,000 employees, as well as 14 production facilities, 24 international branch offices and distributors located throughout Europe, North- and South America, Asia, Australia, Africa and the Pacific region. This worldwide presence implements the requirements of every single customer to provide the ideal full-service solution.

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