

Global Changes Start Local

For a sustainable future

Over the past year, CCL Design Stuttgart has undertaken a series of investments in order to address the growing challenges of our environment. The measures primarily serve to reduce CO₂ emissions and promote the sustainable use of valuable resources. The main investment was to equip the roofs of the administration building and the cafeteria with 470 highly efficient photovoltaic modules of the newest generation. This system covers 35% of the in-house energy requirements. Overall, one third of the total energy needed is produced sustainably, which corresponds to an annual CO₂ reduction of 110 tons.

The overall energy consumption was also minimized. The hall lighting and the office lighting were converted to LED, and the permanent lighting was made dimmable and equipped with motion detectors, which alone reduced the energy consumption of the hall lighting by 80%. This means that the lighting will save 38 tons of CO₂ annually in the future.

The electromobility area was also expanded. Goods are now transported emission-free on the entire company premises. New electric hybrid vehicles in the fleet benefit from the installation



of company-owned charging stations: This results in further savings of 2 tons of CO₂ every year.

During recycling and disposal, the share of label material with FSC-certified recycled content is continuously optimized and expanded. The environmentally friendly disposal of our production waste is verified and confirmed annually with sustainability certificates.

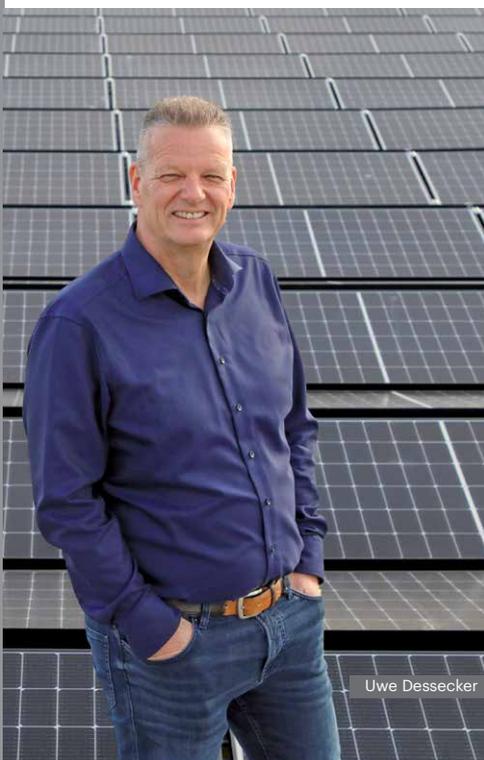
The conversion of the air conditioning, the optimization of the control system, plus the heat recovery for preheating the hall supply air and the reduction of cooling energy via environmentally friendly lime-coated skylights further

contribute to energy savings.

Other measures, such as 2,200 m² of greenery on the roof, the reduction of business flights, and the introduction of "Secure Print" with 33,000 fewer sheets of printouts per year are also part of our efforts to protect the environment and to conserve our resources.

Our goal is a 38% reduction in CO₂ emissions by 2023 in order to meet the CCL Group target for climate neutrality by 2030. We are also examining further savings potentials and activities.

Support us on our path to climate neutrality!



Uwe Dessecker

Dear customers and partners,

In 2016, Wölco AG became CCL Design Stuttgart GmbH. The company's history goes back 60 years to when Wölco was founded in 1962. That's 60 years of focusing on top quality and customer satisfaction. Labels combined with self-adhesive solutions have been our core business right from the start, which we have continuously expanded over the years together with our customers and adapted to the latest technological requirements.

And even though the Covid-19 pandemic, the paper strike of the Finnish UPM Group, and the situation in Ukraine caused delivery bottlenecks and new challenges for us and the industry at large, overall we can look back on a positive year 2022, in which we were able to initiate a lot with regard to a climate-neutral, energy-saving future. We were able to demonstrate that we are an all-round reliable partner to our customers by ensuring deliveries in full,

even in difficult times of crisis.

The conversion and investment in our laboratory and technical center sets new standards in material testing and development in the field of intelligent labels. We have been offering our customers individual and innovative solutions with excellent, qualified advice since the founding of the company. We are also focusing on sustainability and going green: For this reason, our ACCTueL is no longer sent by mail, but instead by e-mail to your inbox in order to reduce CO₂.

We would like to take this opportunity to thank all customers, employees, and suppliers for their loyalty and cooperation in 2022!



Label Solutions You Can Touch

Customer Experience Center Stuttgart

Since the beginning of this year, the entire portfolio of the CCL Design world has been on display in the spacious and bright foyer of CCL Design Stuttgart GmbH. The latest generation of functional tags and labels are displayed on four cubes.

CCL Industries

As a pioneer in the field of special packaging, CCL Industries is one of the largest label companies in the world with the divisions CCL, Avery, Checkpoint, and Innovia. All areas work on the processing of pressure-sensitive and extruded film materials for decorative, didactic, safety-related, and functional applications.



We at CCL Design Stuttgart GmbH are a part of the CCL Design Group, which is responsible for high-performance, durable labels in the automotive and electronics sectors as well as the technical industry.

From operating foils to foil circuits, safety and warning labels, floor markings, thermal transfer ribbons and special solutions, all CCL products can be experienced and touched in the showroom in Nufringen. Whether automotive, electronics, aerospace technology, or technical industry: CCL offers a wide range of innovative and functional labels and identification solutions backed by decades of experience worldwide. ■

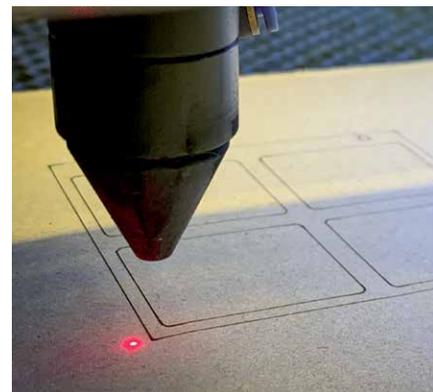


Technical Center with Fascinating Technology

“More intelligent” labels in future

The construction of a technical center for functional printing in 2022 laid the foundation for the “Intelligent Labels” division. Innovative prototypes and special solutions are created in the technical center in close cooperation with the customers, through the use of screen/stencil printers, suitable drying technologies, an automatic placement machine for electronic components, and a CO₂ laser. The technical center is equipped to process the necessary functional printing pastes and offers all the options for developing concepts

that can be easily applied to the production facilities in Nuremberg, Solingen, and Tatabanya/Hungary. It even accommodates the production of small series. The Nufringen site is gradually being developed into a competence center and, together with the cooperation partners, is actively involved in shaping this forward-looking business area. ■



New Family Member at CCL Industries

Control instruments of the future

CCL Design strengthens automotive area with McGavigan. In January of this year, CCL Industries announced the acquisition of McGavigan Holdings for CCL Design. McGavigan is a leading supplier of decorative components for the interior fittings of motor vehicles. The company serves its worldwide customer base with a facility in the UK, which has existed for a long time, as well as a recently completed in-house facility in China. The capacities include state-of-the-art clean rooms with technical screen printing, high precision molding, injection molding, and automation technologies.

The automotive industry is changing at an unprecedented pace, making major strides towards a sustainable economy. Important trends are revolutionizing vehicle interiors and offering a unique

driving experience. The acquisition of McGavigan will help to position CCL Design as a key player in the sector in order to promote these trends and stay a step ahead of the pack.

In addition to the existing product range from CCL Design for the automotive industry, we now also develop and manufacture innovative product solutions for vehicle interiors:

- Switching and operating elements
- Decorative interior panels
- Lighting modules
- Operating panels
- Capacitive touch screen panels
- Displays and indicators
- Steering wheel controls



Modernization of Laboratory Facilities

Expansion of analysis possibilities through new investments



The R&D department (material science) was allocated new laboratory and office space as part of a major renovation project. A wide range of test methods for examining adhesive materials, for example, are housed on an area of around 70 m². The move went hand in hand with the acquisition of additional measuring devices. In addition to testing adhesive strength, environmental or media influences, and thermal resistance, the newly acquired laser microscope now also enables optical layer analyzes down to the nanometer range.

The non-contact and therefore non-destructive method facilitates the examination of transparent materials, the creation of three-dimensional representations of the examined structures and an extensive characterization of a wide variety of properties, such as surface roughness, layer thicknesses or component geometry.

High-pressure test

With the investment in a test chamber that enables testing pursuant to pro-

tection class IPX9K, the durability of the labels can now be tested even under harsh environmental conditions. With this test method according to the ISO20653 standard, a jet of hot water vapor is directed at the component from specified angles with a pressure from 80–100 bar. The exposure time and the temperature can be set in the measurement program and are usually 30 seconds and 80 °C. The component is mounted on a turntable, the speed of rotation of which can be adjusted. Depending on the customer's requirements, the label must be undamaged in terms of function and appearance after completion of the test. ■



Innovative Labeling – Flexible and Distinctive

Transfer label for almost any surface

The new Waterslide label allows permanent, flexible, and innovative labeling on a variety of substrates. The flexible transfer labels are also particularly suitable for the branding of bicycle frames. The multi-layer structure with a removable label carrier and the printed design with imprinted markings makes the label universally applicable for indoor and outdoor use. The special label can be used on almost any substrate or hard surface, such as metal, glass, ceramics, and plastic.

By moistening the label, it detaches itself from the label carrier material and can be placed and moved anywhere on the object while wet. The removable cover film can be removed immediately after drying. Optionally, the product can be varnished with clear lacquer. The Waterslide Labels are resistant to alkalis, acids, high-pressure cleaners, and solvents. They have a high level of lightfastness and show very little yellowing.

12 basic colors including white and 4-color process colors are available for printing. In addition, other effects such as metallic or mother-of-pearl colors are possible. The color palette matches various common color systems extremely well. This means that almost any desired color shade can be realized. The removable cover film also creates an even shine on the surface. ■



Production in Europe / fast availability



Repositioning 5 min.



UV-resistant



Scratch resistant

IATF Put to the Proof

Recertification passed in remote audit

The auditors commissioned by the independent certification company DEKRA checked the CCL quality management system for two days in Nufringen pursuant to strict guidelines.

As in the past, no major deviations from the defined standard were noted. Due to the high quality standards of CCL, the experts confirmed a flawless result and certified our company again with the automotive quality certifi-

cate according to IATF 16949 and according to the general QM standard ISO 9001.

The certification according to ISO 14001 was also checked. ISO 14001 is an internationally recognized standard for environmental management systems. Meeting these requirements plus the certification is proof positive of the company's responsible conduct mirrored in its eco-friendly processes. ■



For your US export

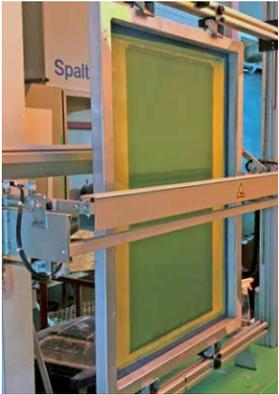
As an authorized manufacturer of UL labels, we have the most important UL approvals in accordance with UL 969 "Standard for Marking and Labeling Systems" and offer a large variety of certified materials. We also recently obtained UL approval, which allows us to apply a protective laminate to the printed UL labels. This perfect solution results in a label that offers virtually 100% protection from adverse influences, such as wiping, scratching, and solvents.

3105 2008	no laminate
3105 2008-L	Laminated with 25µ PET
3105 2008-L50	Laminated with 50µ PET
3205 2008	no laminate
3205 2008-L	Laminated with 25µ PET
3205 2008-L50	Laminated with 50µ PET

Approved as a printed variant under UL file no. MH15511

Process Optimization for More Efficiency

Higher quality due to change



After the conversion measures have been successfully carried out at the Nuremberg plant, the focus is now on process optimization. The objective is to achieve reproducible and consistent quality through the precise coordination of processes, further investments in an automatic coating system for screen production, as well as additional steps to ensure fewer manual tasks and more automated processes. The new system enables one-sided and simultaneous double-sided screen coating. And

by decreasing rework it is also possible to achieve significant improvements in terms of sustainability.

With the new, digital inkjet printing system, the location also offers maximum flexibility to accommodate individual customer requests. Combined with conventional screen printing, this yields hybrid solutions that offer the best of both worlds. For example, individual print images can be combined with functional color systems and the resulting products can meet the customer's requirements, for example printing solutions that are completely opaque.



automated processes. The new system enables one-sided and simultaneous double-sided screen coating. And

Aerospace – CCL Products in Planes

Uncompromising quality

Complex products for the aerospace industry are produced at the Nuremberg plant, which are subject to the strict aerospace quality standards of the DIN EN 9100:2018 Quality Management Certification.

Pictograms, instructions, type and series designations, or escape route markings are used in the cabin, wash-room, galley, corridor, cockpit, and on the exterior of aircraft. CCL offers the appropriate solutions with la-

bels that are highly resistant to low and high temperatures. They are very durable under extremely harsh environmental conditions and different air pressures. At the same time, they are lightweight with high strength and rigidity. Depending on the application, luminescent materials guarantee improved safety.



Type plates

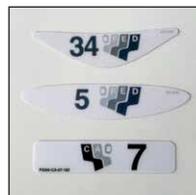
Photoluminescent labels

Information labels

Warning and information signs

Anti-microbacterial film

Front and keyboard films



The Sustainable Security Solution made from Paper is Here

Outstanding closure technology made from paper



We are offering a completely new adhesive material for originality and tamper protection. For the production of security material for label printing, we are using resource-saving paper instead of a film composite. The result is equally forgery-proof: The CHECKERBOARD pattern familiar from security film is clearly visible after tampering.

Until now, security labels for protection against initial opening, tampering, and originality have mainly been made from film materials. A solution has now been developed that meets the tough demands of the market while using paper as the top material.

Special paper replaces film material

Tampering is impossible: The CHECKERBOARD paper leaves behind a white CHECKERBOARD pattern after opening, which previously was only possible with film labels. This is made possible by the use of a special paper, which – unlike previous solutions – is still clearly identifiable even on the peeled off label face material. The CHECKERBOARD pattern, which is no longer adhesive, prevents any attempt to reattach the detached label to the substrate. This makes the new adhesive material suitable for the safe closing of cardboard or paper packaging. A big advantage of this solution is the fact that it enables single type recycling. ■

Foil with Recyclate

For sustainable labeling solutions

Old becomes new: Industrial waste and old PET packaging are turned into high-quality PET labels.

Up to 30% of the “raw material” for this label material comes from corresponding industrial waste and from old PET packaging that typically occurs in households, such as bottles made from plastic and packaging residues.

The innovative PET adhesive material has a top coat and can easily be printed on. This allows us to optimally combine your requirements for both the print quality and sustainability.

And, of course, PET labels offer many advantages in terms of labeling, such as high water and moisture resistance as well as durability.

Thinking in terms of material cycles

The PET label material made from partly recycled material is white. But upon closer examination, small color differences from the recycling process can be seen. This makes the label ideal for manufacturers who want to demonstrate their commitment to sustainability when labeling their products.

Optimization of environmental balance

We believe that the label material is another way of optimizing the environmental footprint of labeling solutions. Plastics have facilitated tremendous progress in many areas. But it is important to frequently question the “throw-away mindset” and think more in terms of material cycles and actively promote them. This label material with film made from recycled PET makes an important contribution.

