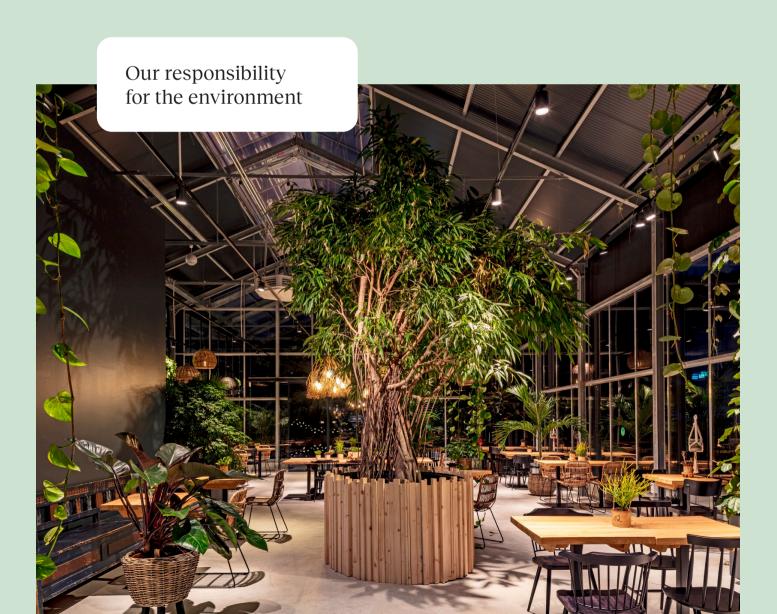
Reduce Reuse Recycle



Our mission

"At Ansorg, we believe that light has a major impact on the customer in-store experience. Our lighting concepts focus on the moment of the purchase decision, the touchpoint between light, product and customer. We create sales-promoting, energyefficient and sustainable retail environments that inspire customers.

When high-quality light and energy efficiency are combined in bespoke lighting products you get sophisticated and sustainable solutions that promote sales."

Environmental protection, climate change, energy efficiency.

Only a few terms are emphasising how important sustainability has become in our society as a whole, in our day-to-day lives and economic thinking and acting. Ansorg is glad sustainability has taken on this significance because, as an owner-managed, mid-sized company, a commitment to sustaining the foundations of life is firmly established in its values and corporate culture. However, in addition to preserving our planet's natural resources we have to be willing to embrace change so that we can more effectively safeguard the foundations of life, address social issues and structure relationships with our suppliers and customers.

This report sets out Ansorg's approach to upholding sustainable business practices.

Content

p.	5	Responsibility
		Corporate responsibility guidelines Environmental management system and Code of Conduct Working at Ansorg
p.	10	Ansorg's sustainability principles
p.	11	Ansorg's business model
p.	15	Light planning Concept-focused planning Certifications
p.	17	Circular economy Ansorg luminaires are durable Product development Design and choice of materials Packaging Transport Maintenance, dismantling, disposal Waste management Reuse of materials and responsible resource consumption End of the product life cycle Retrofitting to efficient LED technology Product certificates
p.	33	Collaborating with partners Supplier relations
p.	35	Future and outlook

Responsibility

"Our planet is a finite ecosystem – once the resources are consumed, they're gone. We have to stop using the available, finite resources without considering the longterm consequences. Only durable products help to conserve our valuable resources."

Corporate responsibility guidelines

Ansorg meets its obligation towards existing and future generations based on a proactive commitment made many years ago to protect the environment and to use limited resources sparingly. Here at Ansorg, compliance with environmental legislation and the required continuous improvement of environmental performance are not perceived as tiresome obligations. Rather, they are central to our business purpose. Our owners, managing partners and employees are all committed to upholding sustainable business practices in the economic, ecological and social spheres.

All of Ansorg's actions reflect a commitment to protecting the environment that is manifested in the Ansorg product development, production and raw material procurement processes, the supply chain structure and our holistic approach to designing sustainable retail lighting solutions. Using new knowledge as an opportunity to evolve. We are constantly working towards making our products and processes more eco-friendly in line with circular economy best practices.

Environmental management system and Code of Conduct

Ansorg obtained ISO 14001 certification at the end of the 1990s. Ansorg's environmental management system is growing in line with the company's more complex requirements and technical progress, and it undergoes regular external audits. Binding guiding principles that apply to all actions and activities allow Ansorg to achieve continuous improvements in sustainable management practices and employee diligence.

These principles demand compliance with the obligations defined by Ansorg in its environmental policy. Environmental practices, environmental objectives and an environmental programme help it to achieve that compliance.

Responsibility

The Ansorg Code of Conduct (of 16.4.2019) ensures that all people in the organisation are on the same page when it comes to respecting others and behaving responsibly towards each other, society and the environment. The environmental management system is continuously updated and undergoes regular external audits.

"All of Ansorg's actions reflect a commitment to protecting the environment."

Working at Ansorg

Ansorg attaches importance to working environments and conditions that inspire people and encourage productivity. Our goal is to cultivate healthy and long-term employment relationships with our entire workforce. Ansorg believes that the best results are achieved with mixed teams whose members have diverse professional backgrounds, biographies and interests. We provide space for diversity while emphasising our common ground. Ansorg encourages lifelong learning and offers long-term career development opportunities to talented and motivated employees. Ansorg published its Health and Safety Policy on 20.5.2019, and it also complies with the stringent RIDDOR guidelines (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations, 2013). Some of these British guidelines are far stricter than the German Health & Safety Act (Arbeitsschutzgesetz). Lastly, Ansorg raises sustainability awareness among the entire workforce through internal communications on environmental protection and workshops on waste avoidance. Ansorg continuously introduces new opportunities to ensure that every workplace can make its workflows greener and more sustainable.

"We attach importance to working environments and conditions that inspire people and encourage productivity."

Ansorg's sustainability principles



Responsibility

Ansorg is an owner-managed company and a dependable partner. We protect integrity and encourage environmental awareness in our day-to-day operations.



Durability

Ansorg manufactures products in excellent quality with long life cycles. Services provided to customers in the operating phase, such as maintenance and cleaning, ensure that the products retain their high efficiency and extend their useful lives.



Ambition

Ansorg follows the latest developments, conserves resources, supports circular economy best practices and uses environmentally friendly materials and technologies. Our specialist team of light planners cleverly integrate high-efficiency Ansorg luminaires in holistic lighting concepts to deliver the best-possible lighting quality and energy footprint.



People

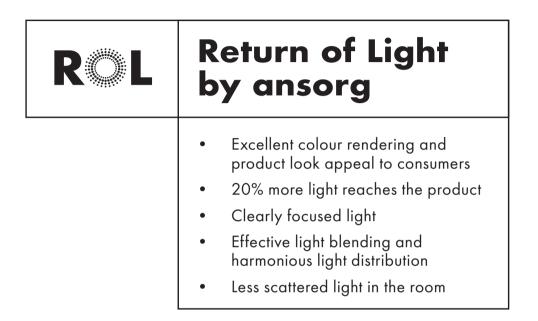
With innovative lighting expertise and ecological corporate values, Ansorg makes a significant contribution to improving environmental quality and reducing carbon emissions in partnership with both customers and employees.

Ansorg's business model

"Ansorg's business model improves its customers' sustainability."

> The essence of the Ansorg business model is the realisation of high-quality, energy-efficient and smart retail lighting concepts with premium lighting products. Ansorg solutions contribute to reducing the carbon footprint of the shopping experience and they deliver added value to our customers.

The effectiveness of the Ansorg lighting concepts is measured with "Return of Light" (ROL). ROL tells us what proportion of the light is directed at the merchandise.

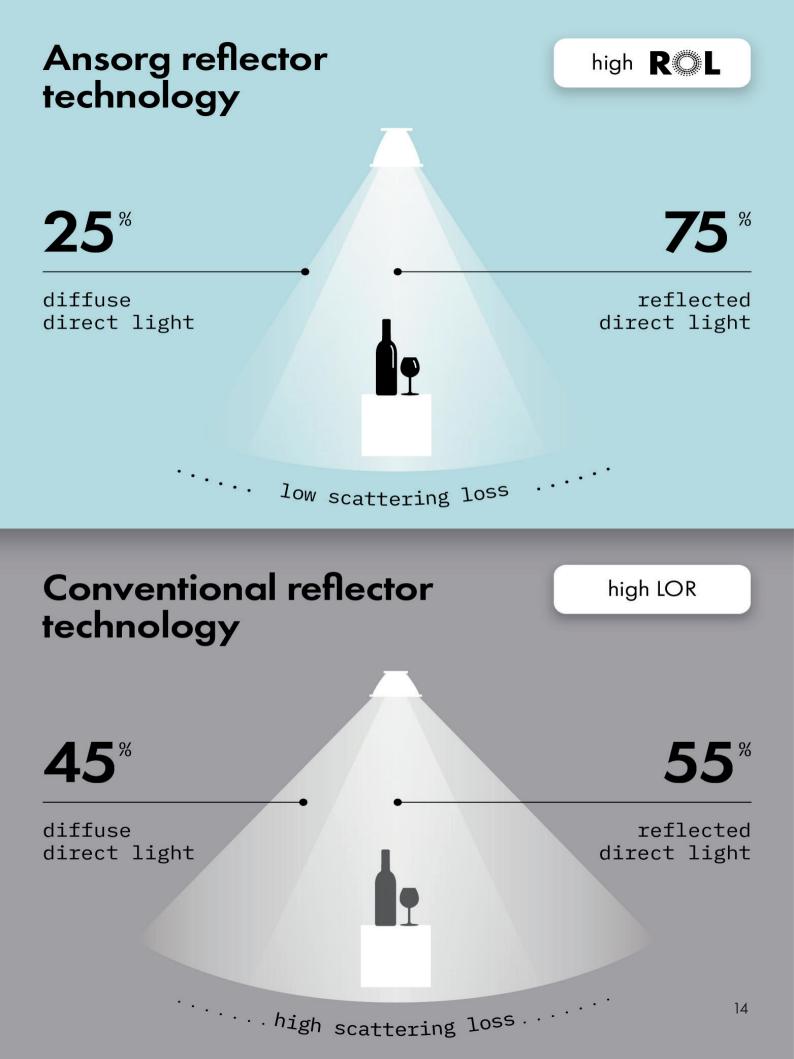


This is the light that is directly available for showcasing the products. Ansorg has designed reflectors to efficiently focus the LED light and direct it onto the target surface. Thanks to this technology up to <u>20%</u> <u>more light</u> ends up on the products.

The reflectors also improve light quality and energy efficiency because the light is guided precisely to where it is actually needed, so Ansorg is making a direct contribution to sustainability.

Ansorg has improved the <u>power efficiency per sold luminaire by 39%</u> since 2016. As a result, power consumption is 23% lower, and energy requirements are reduced by one quarter.

"In retail, the decisive factor is how much light reaches the products – not how much light is emitted from the luminaire. "



Light planning – Concepts for sales-promoting, sustainable retail stores

"Every one of our lighting concepts delivers measurable efficiency. They improve energy efficiency, reduce TCO and deliver a fast return on investment."

Concept-focused planning

The use of efficient LED lights is not the only contribution we make to improving efficiency and saving energy. Concept-focused planning additionally serves the purpose of optimising efficiency through costeffective lighting technology developed by us in-house as well as reducing the number of luminaires used to the absolute minimum. The special Ansorg project process includes the phases of analysis, planning/design, evaluation and implementation. We particularly focus on the <u>emotional effect</u> because light can sub-consciously influence consumers and their purchase decisions. When best-quality light and holistic planning are combined in bespoke lighting products you get sophisticated and sustainable solutions that promote sales. With sustainable lighting concepts we have reduced total watts per square metre (W/m²) by over 10% in the past year.



Certifications

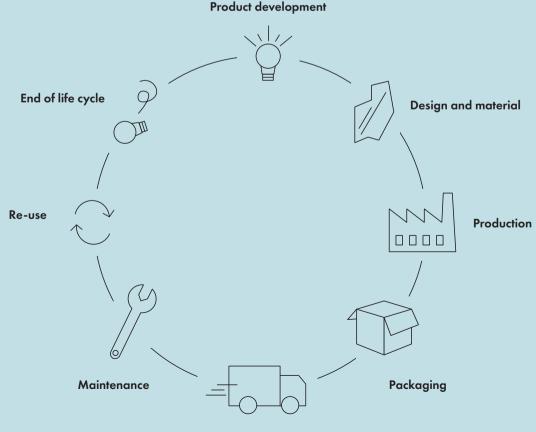
Our lighting solutions and concepts make a positive contribution to environmental certifications such as DGNB, BREEAM or LEED because we plan them to be sustainable by ensuring their compliance with known energy requirements and to deliver maximum efficiency. The objective of any lighting concept is to deliver best-quality light with optimised energy input in line with customer objectives.



Circular economy

"Ansorg takes an interest in the entire life cycle of its products and the associated resources."

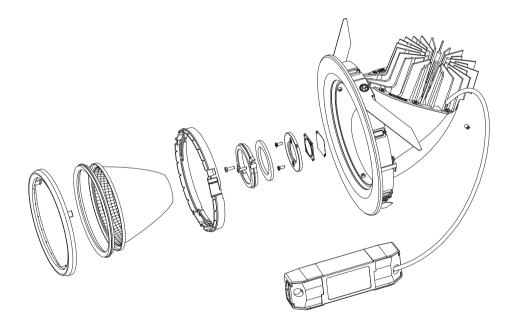
In this connection the circular economy concept is a source of valuable inspiration and guidance on the implementation of specific measures.





Product development

Ansorg products are designed and built for durability. We achieve this by steering clear of short-lived trends and by using high-quality, lightweight and single-variety materials with long lives. This approach has enabled us to maintain a technical complaint rate of less than 1% for decades. Ansorg also maximises reusability by reducing the volume of material used and part diversity to the minimum. This facilitates the easy dismantling of the individual product components.



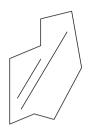
The Development and Design Guideline (RL-0004-PDC-DE) is Ansorg's guideline for more environmentally friendly product design. It mandates "avoidance rather than recycling and recycling rather than disposal!"

Ansorg's principles of eco-friendly product design are based on the following:

- Regarding the entire product life cycle.
- Contemplating all possible environmental impacts.
- Considering ecological aspects alongside technical and economic aspects in the early stages of the product development process.

Products such as those in the Ansorg range are subject to the Waste and Electronic Equipment (WEEE) Directive on the collection, treatment and recycling of electronics at the end of their life. All design and developement teams are instructed to:

- Incorporate efficient lighting technology in new product concepts.
- Maximise the light output ratio for the specific lighting application.
- Minimise the luminaire's power rating through the efficient design of the light directing systems (e.g. reflectors).
- An Ansorg luminaire should have a lifespan of at least 50,000 operating hours.
- Design should reflect function.



Design and choice of materials

Ansorg keeps pace with the latest developments, promotes resource efficiency and uses eco-friendly materials and technologies. We only use as much aluminium as is necessary for cooling and design purposes. In contrast, as many UI94-certified (thermal load) high performance plastics as possible are used. A material blacklist provides guidance on materials that cannot be used in Ansorg products and we are increasing the amount of recyclable materials used in production process and in the products all the time.



Aluminium: We only use aluminium when absolutely necessary, primarily for the cooling element structure, and whenever possible we use single-variety plastics. Aluminium is obtained by recycling primary material scrap. The alloys on die-cast parts are primarily100% recycled aluminium and, in some cases, the amount of aluminium used has been reduced by 65% over the past six years. The use of recycled aluminium reduces primary energy consumption by up to 90% compared to the use of primary aluminium.

Plastics: We only use high-quality, single-variety plastics with long lifespans in our products (e.g. polycarbonate that is UL94-certified). By using thermally non-critical LED technology we have been able to dispense with glass fibre-reinforced injection-moulded materials. Flame-retardant additives are only used sparingly in our plastic parts.

Steel is used for supporting structures (e.g. Lintra) and we always ensure that the minimum amount of the material is used. The 0.6 mm sheet thickness that is used for this product not only provides a <u>material</u> <u>saving of 40%</u>, it also means we can use a pre-painted base material for roller profiling. This eliminates the need for the additional production step of partial powder coating.





	Navo NMT	Punta PMR
Aluminium	79 %	62 %
Plastic	1 %	12 %
Steel	2 %	6 %
Cable, jumpers	6 %	8 %
Electronics	11 %	11 %

Punta PMR

Punta RLP (2017), with a total weight of over 1.5 kg, has been replaced by the next-generation model Punta PMR, with a total weight of less than 1 kg. The aluminium content of Punta RLP was reduced by 700 g in the PMR model without any performance impairment. This change saves up to 32 tonnes of CO_2 every year. That is the same volume of emissions as almost ten transatlantic flights.

Iqona IMT

Weighing 430 g, Iqona IMT has approx. 55% less aluminium content than its predecessor Coray CMT (2016) at 1,030 g, and it also performs better.

Linea SRL

The Linea SRL luminaire is now around 400 g lighter as a result of the use of an integrated shell design.

To further reduce material usage, weight and volume, the Ansorg team applies the following development principles:

- Prioritise the use of existing parts or modifications of those parts over designing new parts.
- Standardise the parts for product families (e.g. one single joint for all products in the series).
- Avoid the "balloon principle" and design parts that optimally utilise transport space, e.g. by designing them to stack inside one another.
- Design the part to maximise lifespan by taking the necessary measures, such as corrosion protection, robust surface coating (textured rather than polished finish), prevention of voltage surges in parts with static or dynamic loads, UV-resistant material.
- Apply the principle of moderation in material use. Give priority to thin walls with reinforcements (ribs, corrugation, etc.).
- Minimise part weight by using alternative materials (e.g. aluminium in place of steel).

The number and diversity of components and the materials they are made of is reduced to the minimum. The use of different materials (e.g. plastic and aluminium) involves multiple suppliers (injection moulders/ die casters), which makes logistics processes more complex and causes higher emissions. This is why, when planning a product concept, we ensure that as many parts as possible are procured from one regional manufacturer.

All of our standard products have the maximum number of identical parts possible: reflectors, mounting rings, mounting brackets, etc. For example, Punta PLR and Linea SRL have the same mounting ring.

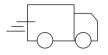
We are currently implementing the Iqona IMR development project, which is associated with the phase-out of solitary products. Further positive effects of the concept are improved luminaire performance through enhanced cooling and longer LED lifespan, which increases the entire product's useful life.



Packaging

Ansorg primarily uses cardboard and paper packaging, and it is increasingly using bulk packaging for its luminaires. Whenever possible it also uses recycled packaging materials. This simplifies waste separation at the points of installation and supports sustainable packaging recycling. At the same time, Ansorg keeps abreast of new developments in the field of eco-friendly packaging.





Transport

One of our key environmental objectives is to further reduce freight volumes and also, as a result, carbon emissions. There is potential for reduction in the areas of incoming and outgoing freight. Our activities to reduce freight volume focus on concentrating production activities in Europe and a smart supply chain concept with order-based logistics management straight to the construction site.

By locating production operations in Europe we have been able to significantly reduce transport distances and times on the procurement side. It gives us greater speed and flexibility, which our customers directly benefit from, and improves our service level.

We have also optimised our transport logistics concept for customers by bundling different luminaires and accessories together. We are planning to combine the production of high volumes of luminaires and the production of power rails in order to simplify and speed up our logistics processes.

However, the products themselves also have a significant impact on transport weight and volume, so the development team always ensures that their designs are as lightweight as possible and that they are transported to the construction sites in bulk packaging. Significant reductions in luminaire weight (e.g. Punta –50%) are also lowering long-term transport-related carbon emissions.



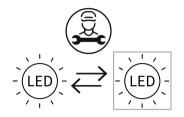
Maintenance, dismantling, disposal

In the design phase our designers ensure that Ansorg products are built to last and can be disposed of in an environmentally friendly way

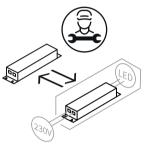
- Our finished products and components have modular designs to simplify in-situ dismantling, repair or defective component replacement.
- Electrical components such as capacitors, drivers, light bulb sockets and light bulbs are easy to dismantle and, ideally, the first parts to be disassembled.
- We never seal electronic components in casting compounds.
- The products are all designed for installation with just a few conventional tools (screwdriver, Allen keys, etc.).
- Connection requirements should not change during the product life cycle.
- All parts can be dismantled intact and the products have just a few connection types.

To significantly extend the lifespan of a luminaire we always ensure in the design phase that its components and parts can be easily replaced. The Company Environment Standard WER_101.1_2019 principles have been consistently applied in the design process since 2007. They include, for instance, the principle of not glueing different materials together. The simple replacement of the drivers in recessed luminaires is also not a problem and standard practice.

We have reclassified all of our luminaires in accordance with the European Ecodesign Regulation (R. 2019/2020) which has been in force since September 2021, and we provide the information that the LED driver and the LED can be replaced by an authorised expert with every luminaire.



Replaceable (LED only) light source by a professional



Replaceable control gear by a professional

Waste management

Ansorg primarily views waste as recyclable raw materials. The easier it is to sort waste into single-variety materials, the more valuable these materials are for secondary use. Ansorg's objective is to produce as little waste as possible and, whenever feasible, to use waste materials for other products. The proper disposal of production waste, the separation of scrap paper, plastic and metal and its correct recycling have long been standard practices at Ansorg. We also encourage our partners to use responsible production processes and minimise their consumption of resources. Ansorg ensures compliance with WEEE disposal guidelines all over the world.



Reuse of materials and responsible resource consumption

We believe in a future where resources are conserved, recycled and reused. For that reason, and because the highest emissions are associated with the production and disposal of products, we are working towards extending our luminaires' lifespans with multiple usage cycles. Every extension of a product's useful life makes an important contribution to conserving resources and reducing emissions. How we do it: We take back, check and refurbish Ansorg luminaires to reflect the state of the art. Depending on the luminaire's technical condition, the reflector is cleaned or replaced, and only the LED and driver are exchanged for new ones.

After refurbishment, the 'old' product is returned to the customer. This service is currently in the pilot phase and the results are promising. In the next step we will establish a process to implement larger projects efficiently and cost-effectively. Not only will this eliminate the need for the production of new luminaires, which conserves resources and reduces emissions, the customer also benefits from top-quality light, saves capital expenditure on new products and enjoys a substantial reduction in operating costs.

In doing this Ansorg makes a measurable contribution to improving its <u>customers' energy footprint.</u>

22.

"We take back older Ansorg luminaires, check them and bring them up to the latest technical standard."



End of the product life cycle

Every product reaches the end of its life cycle at some time. Easy dismantling concepts and the avoidance of composite materials simplify the recycling process. Plastics are designated in accordance with ISO 11469 so that they can be allocated to the correct recycling process. At the same time we can make sure that the replaced and returned products are dismantled and almost entirely recycled in an eco-friendly way.

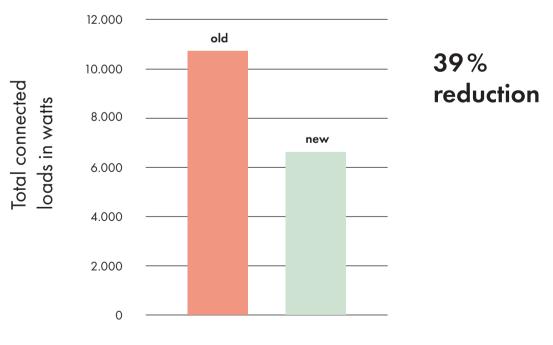
Retrofitting to efficient LED technology

A retrofit to efficient LED technology benefits both the customer and the environment. We are seeing considerable scope for the improvement of existing in-store lighting concepts in terms of merchandise presentation and environmental footprint. Many retailers are still using outdated lighting technology and early-generation LED lights. As a result, they are missing sales opportunities and will be hit particularly hard by increasing energy prices.

Another of our focus areas, in addition to developing innovative lighting solutions, is providing smart and cost-effective refurbishment services to our customers. Retrofitting older lighting systems with stateof-the-art LED technology enhances merchandising concepts, improves the overall look of the store and, at the same time, significantly reduces the store's energy consumption. Our customers profit from lower energy consumption and CO2 emissions, as well as a fast return on investment.

We perform a quick check to reliably establish cost effectiveness and ROI for your investment. Retrofitting is a very simple process involving one single partner. Supplementary financing products allow you to start saving money every month straight afterwards.

Connected load reduction



Existing vs. new LED system



Product certificates

Ansorg always endeavours to use only low-pollution raw materials and to structure its production processes for minimum negative impact on the planet and its population. The products are also certified by independent institutions to confirm compliance with environmental standards to increasingly stringent consumers. There are numerous national and international product and component marks for safety, health and environmental impacts, and some cover all three areas. Ansorg defines the necessary and appropriate standards, depending on application, for every product.

bsi.		
Certificate of	of Registra	ation By Royal Charter
QUALITY MANAGEMENT SYS	TEM - ISO 9001:2015	
This is to certify that:	Ansorg GmbH Pilgerstraße 11 Mühlheim an der Ruhr 45473 Germany	
Holds Certificate No:	FS 719728	
and operates a Quality Management Sys following scope:	item which complies with the requ	irements of ISO 9001:2015 for the
For and on behalf of RSI:	Chrolens	Sain
ror and on penal or par.	Andrew Laurn, EMEA Systems	Certification Director
Original Registration Date: 2020-02-18 Latest Revision Date: 2020-02-18		Effective Date: 2020-02-18 Expiry Date: 2023-02-17
(bal)		Page: 1 of 1
		making excellence a habit."
This certificate was issued electronically and remains in electronic certificate can be authenticated <u>colore</u> , instale coore: can widebed at wave by deprove arm EE (1955A) mediganters: 200 Osmold, High Rued, L Hemoter of the EEI Group of Companies.	GlentDirectory	Bloss of certaid,





Collaborating with partners

"The standards that apply for Ansorg also apply for its partners and suppliers. The Code of Conduct forms the basis for constructive relationships with partners along the entire supply and value chain. It ensures that social and environmental standards are upheld."

> This is why the Code of Conduct is based on the conventions of the International Labour Organisation (ILO) and compliant with the Ethical Trading Initiative's ETI Base Code. Ansorg has also undergone an SMETA 2-Pillar audit. This social audit methodology is designed for suppliers to share one report with multiple customers, meeting multiple customer requirements and reducing duplication in social compliance auditing.

It is also consistent with the Universal Declaration on Human Rights, the UNGP (United Nations Guiding Principles on Business and Human Rights), the UN's conventions on children's rights and the elimination of all forms of discrimination, the UN Global Compact and the OECD Guidelines for Multinational Enterprises.

In addition to its Code of Conduct Ansorg complies with all effective national and international laws and regulations, and it meets or surpasses minimum industrial standards. In each case the more stringent requirements take precedence. Ansorg evaluates compliance on an annual basis and proactively supports the on-premise audits.

Supplier relations

Ansorg's quality standards can only be upheld in close partnerships with suppliers. They are established from the first day onwards through open dialogue. Corporate social and environmental responsibility factors are intrinsic to our relationships with suppliers. We discuss the relevant criteria in the onboarding process, implement audits of suppliers, monitor them on a monthly basis and perform an annual supplier evaluation. These measures are the basis on which Ansorg builds long-term partnerships with its suppliers.

Future and outlook

This report provides an overview of Ansorg's commitment to sustainable business practices.

> New innovations and technology will help us to move forward in a gradual process towards a more sustainable future with an improved circular economy model.

Ansorg regularly reviews the available opportunities to improve its corporate responsibility profile.

Contact

You're welcome to contact us for further information about 'sustainability at Ansorg'

phone

+49 208 4846-0

E-mail

info@ansorg.com

www.ansorg.com