

Yes, we coat!

YOUR BENEFIT • OUR SERVICE:
FUNCTIONAL COATINGS



Welcome

to the heights of the
Thuringian Forest



GBneuhaus is your specialist for functional surface coatings. We optimize your products with our innovative coating solutions and through that we can make the world a better place. We constantly improve our knowhow in the use of the sol-gel-process. We will find an individual solution for your product according to your wishes by using the best fitting thin coat system and realize it in serial production at our production place.

Michael Petry
Managing Director



Functional coatings

Your benefit? Our service!

As your service partner for functional surface coatings, we want to help you to make your products even more effective. The application of our coatings is possible on plastics, metals and alloys and on glass. Thereby it is also possible to realize even very complicated geometries. Thanks to our many years of experience, we are able to develop an individual solution for your surface – according to your needs.

Our coatings increase already existing properties of your product or create new functions. Thanks to our three-stage coating process, it is possible for you to get an own impression of the effectiveness of our coatings. Our experts will be gladly available for any further questions or inquiries. We are looking forward to create an unbeatable advance for your products. Your benefit? Our service!

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SANPURE® Antimicrobial Coating



The antimicrobial and antiviral coating **SANPURE®** protects surfaces permanently and for long-term against bacteria, viruses and other dangerous pathogens. The coating effectively prevents the multiplication of this pathogens and that leads to a lasting increase of hygienic safety on the surface.

SANPURE®

Antimicrobial coating

SUBSTRATES

- » plastics (PC, PA, PMMA, ABS and more)
- » glass (borosilicate glass, soda-lime glass, quartz glass and more)
- » metals and alloys (steel, aluminum and more)

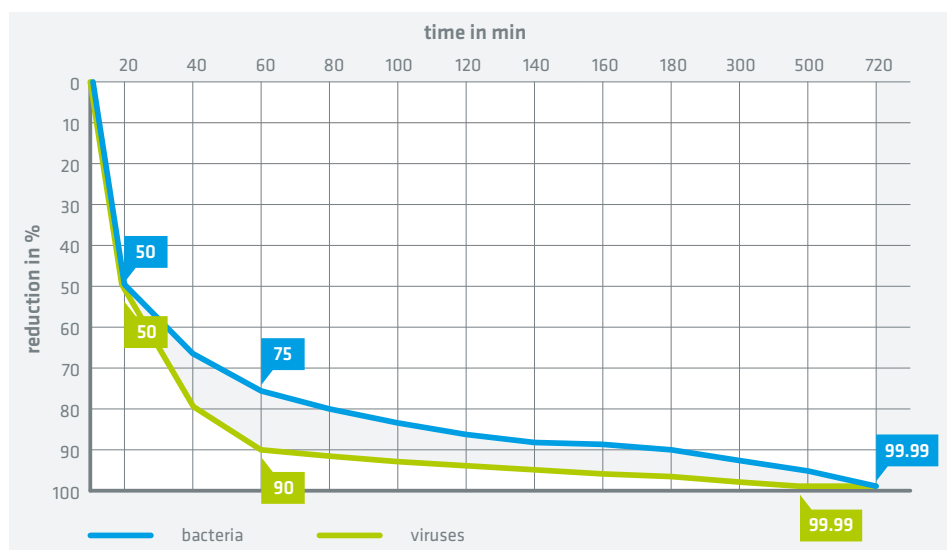
PROPERTIES

- » reduces the reproduction of dangerous germs between cleaning cycles
- » maximum temperature load: 200 °C
- » film thickness from 1.500 up to 2.500 nm
- » lifelong antimicrobial effectiveness (according to ISO22196 / JIS Z 2801:2010 significantly antimicrobial)

» antiviral effect: virus

reduction > 90 % after one hour (lg 1.35), virus reduction > 99.99 % after 8 hours (lg 4.5); testing of virucidal coated germ carriers in practical virucidal carrier test based on RKI guideline (1995) and ISO 21702:2019 against the bovine coronavirus (BoCV; strain: S379 Riems) – screening test S1)

- » **physiologically harmless** (biocompatibility according to DIN EN ISO 10993-5)
- » **abrasion resistant** (based on DIN EN 60068-2-70, min. 10.000 cycles)
- » **scratch resistant** (scratch hardness according to DIN EN ISO 1518 depending on the substrate up to 20 N, pencil hardness according to ISO 15184 up to 10 H)
- » **abrasive hardness** (cross-cut test according to DIN EN ISO 2409)
- » **no change in haptic or optic quality of substrates**
- » **chemical-proof to customary detergents and disinfection methods**
- » **transparent, individually coloured on request or proof of presence by fluorescence particles**
- » **combination with Easy-to-clean-coating possible**



TECHNOLOGY

- » dip coating or spraying
- » application process is defined individually according to geometry and requirements of the substrate

COATING

- » certified according to REACH and RoHS
- » certified according to ISO 9001:2015; processes comply with IATF 16949
- » environmental management conforms to ISO 14001

GBhydrophobic

Easy-to-clean coating



In order to make it easier to clean surfaces, it is possible to coat substrates with a hydrophobic layer. This easy-to-clean effect can be realized by GBneuhaus due to the water-repellent coating **GBhydrophobic** for surfaces made of metals, plastics or glass.

GBhydrophobic

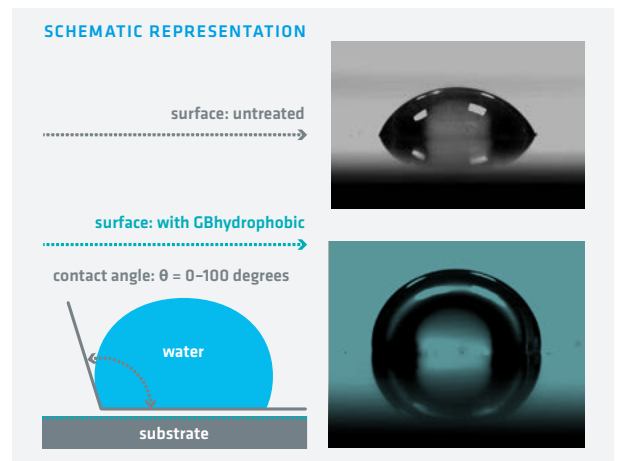
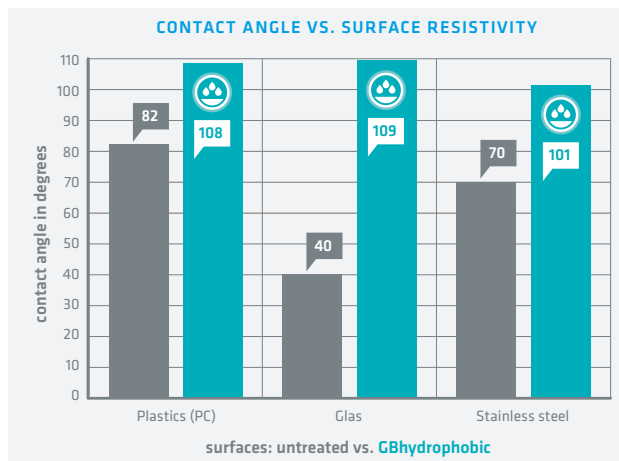
Easy-to-clean coating

SUBSTRATES

- » **plastics** (PC, PA, PMMA and more)
- » **glass** (borosilicate glass, soda-lime glass, quartz glass and more)
- » **metals and alloys** (steel, aluminum, copper, brass and more)

PROPERTIES

- » **contact angle for water $\theta \geq 100^\circ$** (according to DIN 55660-3:2011-12)
- » **maximum temperature load: 200 °C**
- » **combinable with antimicrobial function (SANPURE®)**
- » **film thickness from 1.500 up to 2.500 nm**
- » **no change in optic and haptic quality of substrate**
- » **scratch-resistant** (scratch hardness according to DIN EN ISO 1518 depending on the substrate up to 20 N; pencil hardness according to DIN EN ISO 15184 up to 10 H)
- » **abrasion resistant** (based on DIN EN 60068-2-70, min. 10.000 cycles)
- » **abrasive hardness** (cross-cut test according to DIN EN ISO 2409)
- » **chemical-proof to customary detergents and disinfection methods**
- » **transparent, individually coloured on request**



TECHNOLOGY

- » **dip coating or spraying**
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COATING

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- » **environmental management conforms to ISO 14001**

GBhydrophilic

Anti fog coating



Water droplets and water vapor condensation on smooth surfaces can lead to optical interference and impede the transparency or reflection. Evaporation causes annoying spotting that may also affect the optics and can entail increased cleaning work. **GBhydrophilic** is a coating with hydrophilic properties for surfaces made of plastics.

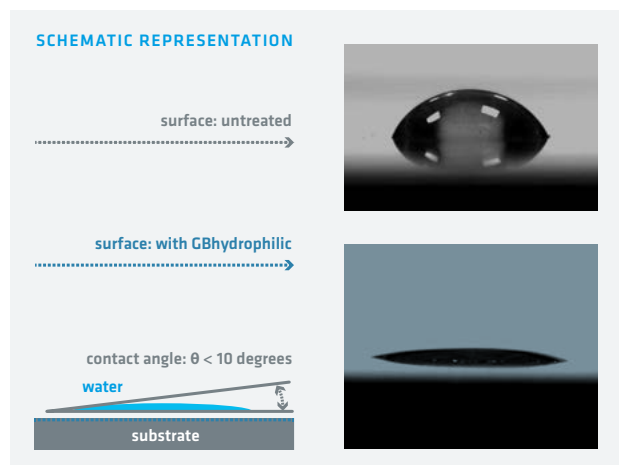
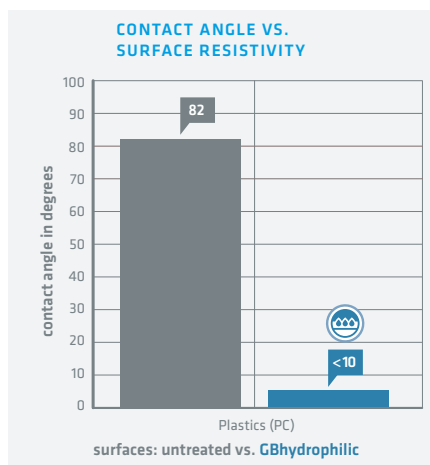
GBhydrophilic Anti fog coating

SUBSTRATES

- » plastics (PC and more)

PROPERTIES

- » contact angle for water $\theta < 10^\circ$ (according to DIN 55660-3 2011-12)
- » maximum temperature load: 200 °C
- » film thickness from 5 bis 10 μm
- » no change in optic quality of substrates
- » scratch-resistant (depending on the substrate up to 20 N)
- » abrasion resistant (based on DIN EN 60068-2-70, min. 10.000 cycles)
- » abrasive hardness (cross-cut test according to DIN EN ISO 2409)
- » chemical-proof to customary detergents and disinfection methods
- » transparent
- » mechanically flexible



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GBprotect plastics

UV-protection and anti-scratch coating



Being used outdoors, plastic components are exposed to the ultraviolet radiation of the sunlight, detrimental chemical substances in the atmosphere and mechanical influences. Thanks to our UV-protection and anti-scratch coating **GBprotect plastics**, your product is effectively protected against those influences. This ensures the long-term preservation of a high-quality look and functionality of your surface.

GBprotect plastics

UV-protection and anti-scratch coating

SUBSTRATES

- » plastics (PC, PMMA, ABS and more)

PROPERTIES

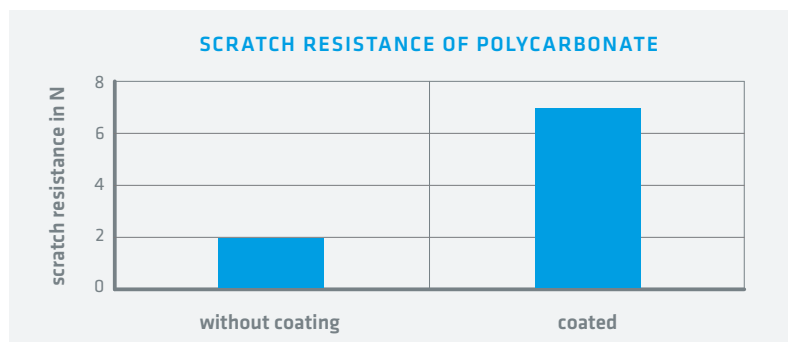
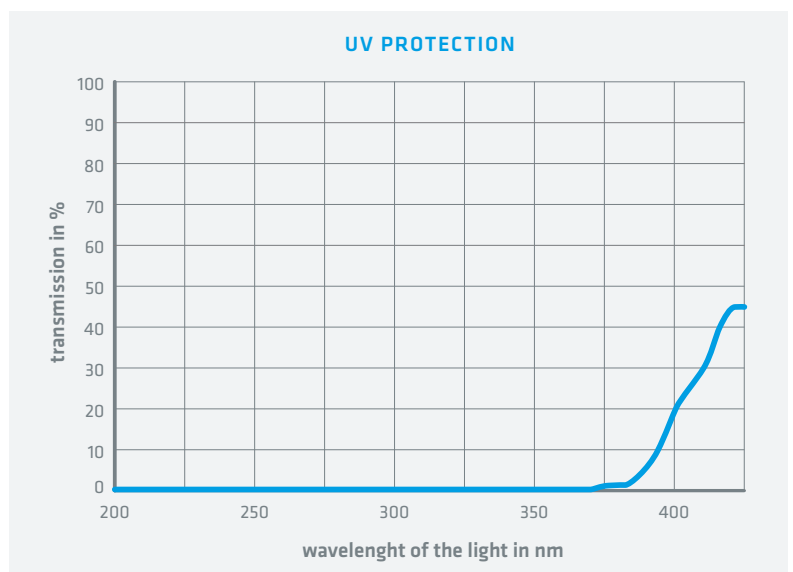
- » protection against UV-radiation and detrimental substances in the atmosphere
- » reduction of UV-spectrum (200 – 380 nm) to less than 1%
- » combined filter effect in the visible spectrum on request
- » combination with hydrophobic effect on request
- » maximum temperature load: 200 °C
- » film thickness from 5 up to 10 µm
- » scratch resistant (scratch hardness according to DIN EN ISO 1518 depending on the substrate up to 20 N, pencil hardness according to ISO 15184 up to 10 H)
- » abrasion resistant (based on DIN EN 60068-2-70, min. 10.000 cycles)
- » abrasive hardness (cross-cut test according to DIN EN ISO 2409)
- » chemical-proof to customary detergents and disinfection methods
- » mechanically flexible

TECHNOLOGY

- » dip coating or spraying
- » application process is defined individually according to geometry and requirements of the substrate

COATING

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GBantistatic

Antistatic coating



In many areas of industrial manufacturing as well as households, static charges are quite frequently a source of damage and contamination. The innovative nano coating **GBantistatic** protects surfaces made of plastic or glass against electrostatic charge.

GBantistatic

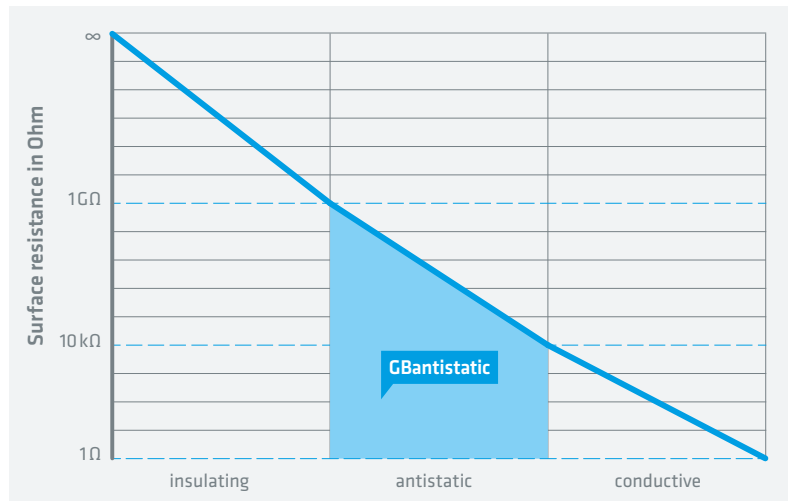
Antistatic coating

SUBSTRATES

- » **plastics** (PC, PMMA and more)
- » **glass** (borosilicate glass, soda-lime glass, quartz glass and more)

PROPERTIES

- » **prevention of electrostatic charging on surfaces** (according to DIN EN 6079-32-2)
- » **specific surface resistance $R = 100 \text{ k}\Omega \dots 100 \text{ G}\Omega$** (according to DIN EN 60093:1993-12)
- » **maximum temperature load: 500 °C**
- » **film thickness from 1.500 up to 2.500 nm**
- » **no change in haptic quality of substrate**
- » **scratch-resistant** (scratch hardness according to DIN EN ISO 1518 depending on the substrate up to 20 N; pencil hardness according to DIN EN ISO 15184 up to 10 H)
- » **abrasive hardness** (cross-cut test according to DIN EN ISO 2409)
- » **chemical-proof to customary detergents and disinfection methods**
- » **mechanically flexible**



TECHNOLOGY

- » **dip coating or spraying**
- » **application process is defined individually according to geometry and requirements of the substrate**

COATING

- » **certified according to REACH and RoHS**
- » **certified according to ISO 9001:2015; processes comply with IATF 16949**
- » **environmental management conforms to ISO 14001**

GBantireflex

Transmission enhancing coating



GBantireflex can be applied to enhance the light transmission through transparent substrates made of plastics. This coating increases the transmission of UV-rays of a defined spectrum.

GBantireflex

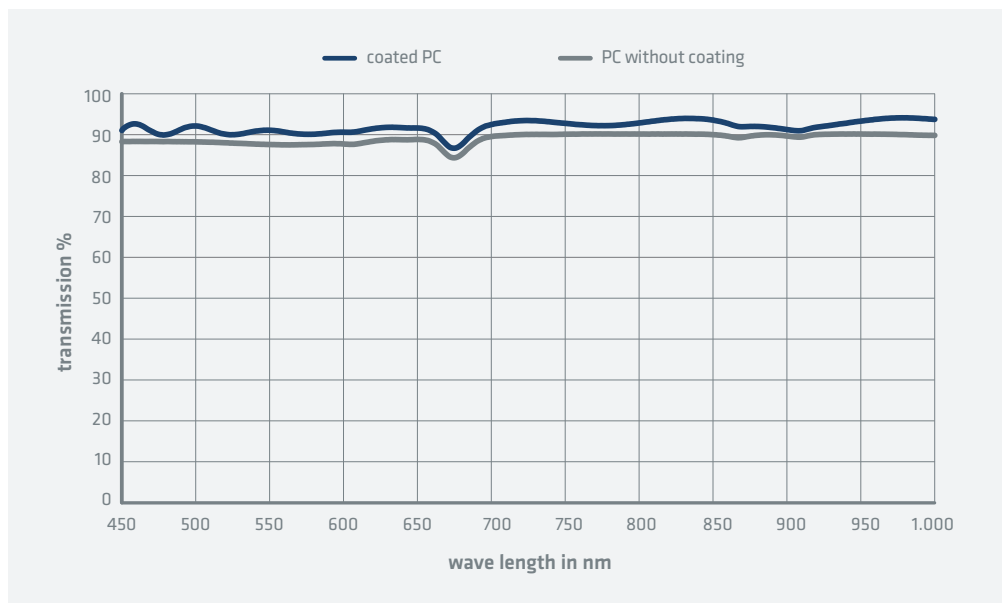
Transmission enhancing coating

SUBSTRATES

- » plastics (PC and more)

EIGENSCHAFTEN

- » reduces reflection and increases transmission inside a defined spectrum by 3 up to 5 %
- » maximum temperature load: 130 °C
- » film thickness from 5 up to 10 µm
- » physiologically harmless (biocompatibility according to DIN EN ISO 10993-5)
- » scratch-resistant (scratch hardness according to DIN EN ISO 1518: up to 10 N; pencil hardness according to DIN EN ISA 15184: up to 10H)
- » abrasion resistant (based on DIN EN 60068-2-70, min. 10.000 cycles)
- » abrasive hardness (cross-cut test according to DIN EN ISO 2409)
- » chemical-proof to customary detergents and disinfection methods
- » no change in optic or haptical quality of the substrate
- » highly transparent
- » mechanically flexible



TECHNOLOGY

- » dip coating or spraying
- » application process is defined individually according to geometry and requirements of the substrate

COATING

- » certified according to REACH and RoHS
- » certified according to ISO 9001:2015; processes comply with IATF 16949
- » environmental management conforms to ISO 14001

GBheat reflex

Infrared-reflection coating



Our reflective coating **GBheat reflex** creates a layer that reflects infrared-light and due to this, it reduces the infrared transmission through a substrate. The coating thus protects infrared-sensitive substrates and reflects the thermal radiation back into the body, therefore significantly improving the energy efficiency.

GBheat reflex

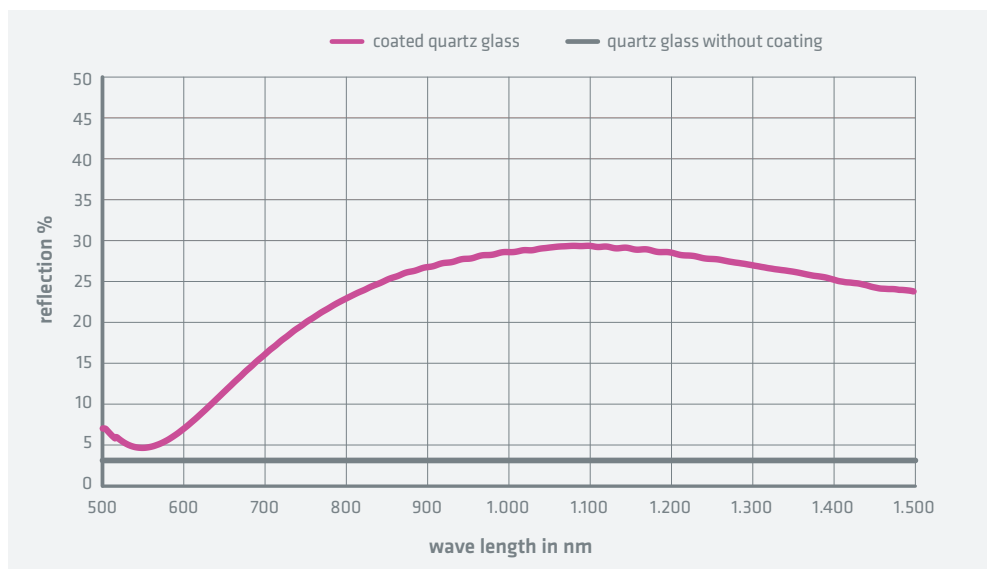
Infrared-reflection coating

SUBSTRATES

- » glass (borosilicate glass, soda-lime-glass, quartz glass and more)

PROPERTIES

- » increases reflection of light in the infrared range
- » protects infrared-sensitive materials and reflects thermal radiation
- » maximum temperature load: 500 °C
- » film thickness from 50 up to 200 nm
- » abrasion resistant (based on DIN EN60068-2-70, minimum 10.000 cycles)
- » scratch-resistant (scratch hardness according to DIN EN ISO 1518: up to 15 N; pencil hardness according to DIN EN ISA 15184: up to 10 H)
- » abrasive hardness (cross-cut test according to DIN EN ISO 2409)
- » chemical-proof to customary detergents and disinfection methods



TECHNOLOGY

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NanoTechnology

Our concept
of quality



Our quality policy is characterised by a clear and distinct customer orientation and an appreciation of their specifications paired with the self-conception of our region for innovation and tradition.

Mario Unger
Quality Manager



GBneuhaus has been certified pursuant to DIN EN ISO 9000 ff. since 1997, currently according to DIN EN ISO 9001:2015. We naturally guarantee accurate process monitoring and sustainable efficiency tests for our customers and partners.

The quality manager with his special field of responsibility reports directly to the Board. Our sensitised and specially trained technical staff perform not only visual checks but also use various specific measured values from pre-treatment, production, right through to the final inspection. Our OEM products are 100 % tested according to our customers' specifications. Customer audits are common and confirm the consistency and transparency of our processes.

Trustful purchasing relationships exist with suppliers of materials (chemicals, metals, solutions, pigments). On account of the systematic assessment and monitoring of our suppliers as well as our internal quality management system, we are able to maintain high level of consistency for our production solutions. This is a sound basis for excellent production results.

We are well aware of our responsibility to the environment. It is our concern to encourage an In-plant environmental policy, to pursue ecological goals and to establish a corresponding environmental management system in accordance with ISO 14001. This also includes our internal energy management. Numerous resources have already been saved and the environmental impact therefore reduced, for example through heat recovery.

Since some of our customers are integrated in the supply chain of the automotive industry, we also work on the basis of ISO/TS 16949. A large share of our process organisation is aligned this.

Our goal is to meet the requirements for certification in this field as well as in environmental management.

We use state-of-the-art measurement technology to check our products' conformance to specified quality criteria, e.g.

- » various spectrometers to measure photometric values in integrating spheres
- » measuring microscopes and profile projectors to measure geometries with an accuracy of 1/ 100 mm
- » reflection and transmission spectrometers in the range from 200-1600 nm
- » viscosimeter to measure the viscosity of coating solutions
- » tensiometer for contact angle measurements in order to assess surface tensions
- » Test equipment to measure the resistance against climatic, mechanical and chemical influences



*We are looking forward
to your inquiry!*

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