स्वच्छ भारत
एक कदम स्वच्छता की ओर

Smart City
MISSION TRANSFORM-NATION

GB neuhaus
NANO COATING SURFACE

REVOLUTIONIZING

Smart surfaces for India

ANTIMICROBIAL

EASY TO CLEAN

UV-PROTECTION

NanoTechnology
Made in Germany

gbneuhaus.de
sales@gbneuhaus.de

Welcome

to the heights of the Thuringian Forest

GBneuhaus (GBn) is a leading supplier of individual coating solutions that are matched to the customers' needs. We distinguish ourselves from our competitors through continuous innovations. This brings us advantages on the market in terms of techniques and technology. We invest in the latest manufacturing facilities and a high level of automation. Our coating solutions are unique for the relevant customer application.

Holger Wilde
Director of Marketing and Sales

NanoTechnology
changes surface properties

As a specialist for innovative coating solutions, our portfolio covers a wide spectrum of functional and decorative coating systems for a variety of possible applications.

Our well-adhering, highly transparent and temperature-resistant coatings are suitable to all intends and purposes for the climatic conditions in India.

We provide surfaces made of glass, metal or specific plastics with the required properties without changing the optical and haptic features of your product.

Our coating brands “easy to clean”, “anti-microbial” or “UV protection plastic” enhance the utility value of our customers’ products and will make their contribution to implement the mission “Clean and smart India” successfully.

SANPURE® Antimicrobial coating

The **SANPURE®** coating combines the excellent features of sol-gel coatings with the antimicrobial qualities of silver nanoparticles. That way, the reproduction of dangerous, multi-resistant germs can be reduced lastingly and safely. The agent AGPURE® nanosilver is registered according to EU 528/2012 (No. N-29919, No. N-29916).

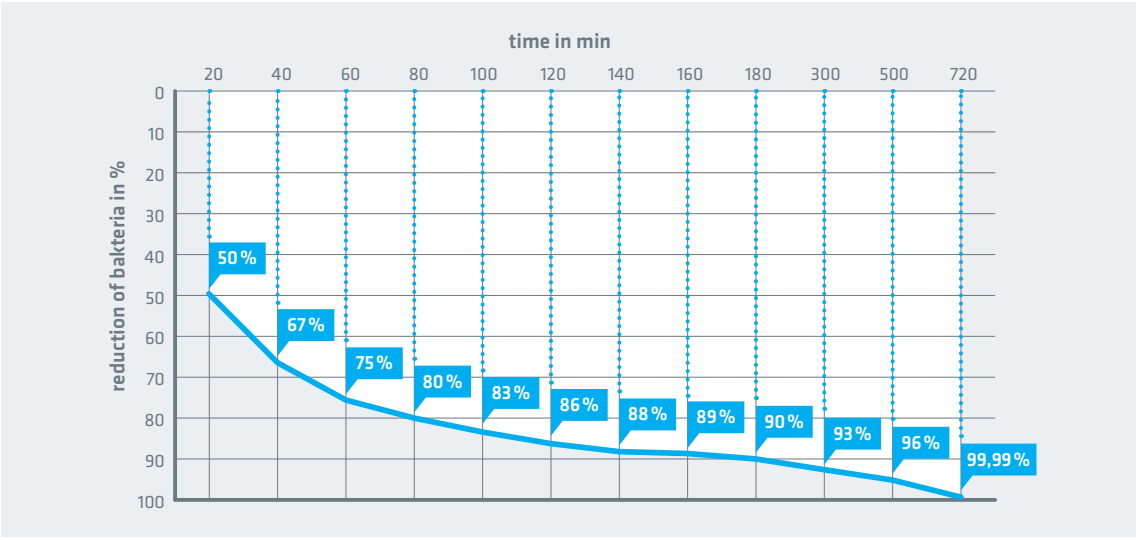
SANPURE®
Antimicrobial coating

SUBSTRATES

» **plastics** (polycarbonate, ethylene tetrafluoroethylene or polycarbonate films)
» **glass** (borosilicate glass, soda-lime glass, quartz glass a.s.o.)
» **metals and alloys** (e. g. steel, aluminium, copper, brass)

PROPERTIES

» **reduces the reproduction of dangerous germs between cleaning cycles**
» **maximum temperature load: 200 °C**
» **film thickness from 150 up to 1.500 nm**
» **lifelong antimicrobial effectiveness** (according to ISO 22196 / JIS Z 2801:2010; significant antimicrobial)
» **physiologically harmless** (biocompatibility according to DIN EN ISO 10993-5)
» **abrasion-resistant** (according to DIN EN 60068-2-70; minimum 100,000 cycles)
» **scratch-resistant** (scratch hardness according to DIN EN ISO 1518: 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)
» **no change in haptic and optic quality of substrates**
» **chemical-proof to customary detergents and disinfection methods**
» **transparent, individually coloured on request or proof of presence by fluorescence particles**
» **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**

GBhydrophobic
Easy to clean coating

In many areas there is a demand for water-repellent surfaces that are easy to clean. GBneuhaus provides a range of innovative nano-coatings, including the hydrophobic application **GBhydrophobic**, particularly for substrates like plastics or glass.

GBhydrophobic
Easy to clean coating

SUBSTRATES

» **plastics** (polycarbonate, ethylene tetrafluoroethylene or polycarbonate films)
» **glass** (borosilicate glass, soda-lime glass, quartz glass a.s.o.)
» **metals and alloys** (e.g. steel, aluminium, copper, brass)

PROPERTIES

» **contact angle for water θ ≥ 105 °** (according to DIN 55660-3:2011-12)
» **maximum temperature load: 200 °C**
» **transparent, individually coloured on request**
» **combinable with antimicrobial function (SANPURE®)**
» **film thickness from 150 up to 1.500 nm**
» **no change in haptic quality of substrate**
» **scratch-resistant** (scratch hardness according to DIN EN ISO 1518 up to 20 N; pencil hardness according to DIN EN ISO 15184 up to 10 H)
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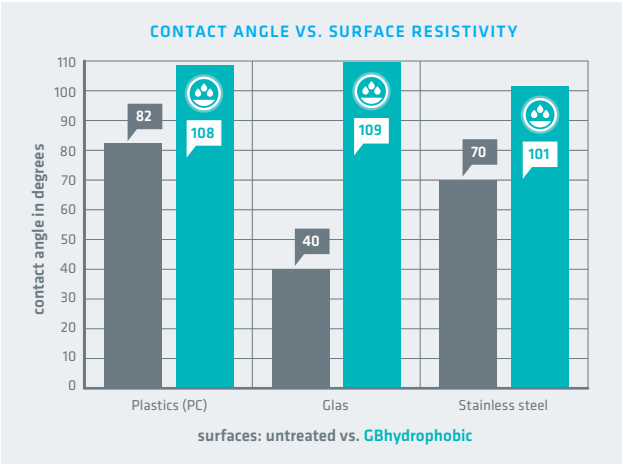

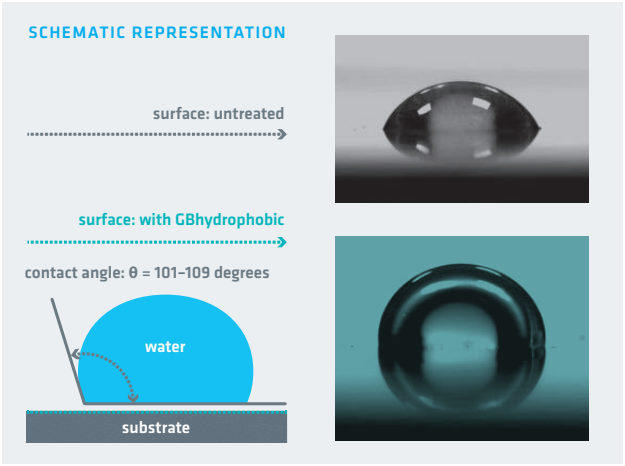

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GBprotect plastics UV-protection coating

Being used outdoors, plastic components are exposed to the ultraviolet radiation of the sunlight and detrimental chemical substances in the atmosphere. GBneuhaus provides a range of innovative nano-coatings, including the **GBprotect plastics** application that affords protection against these hazards as well as it makes sure that high-quality components retain their optical features and maintain their performance.

GBprotect plastics
UV-protection coating

SUBSTRATES

» **plastics** (polycarbonate, ethylene tetrafluoroethylene or polycarbonate films)

PROPERTIES

» **protection against UV radiation of the sunlight and detrimental substances in the atmosphere**
» **reduction of the short-wave UV spectrum (λ < 320 nm) to less than 1 %**
» **reduction of the UV spectrum (320 nm < λ < 350 nm) to less than 10 %**
» **filter effect within the visible light spectrum on request**
» **combinable with antimicrobial (SANPURE®) and/or hydrophobic features**
» **maximum temperature load: 200 °C**
» **customisation to specific conditions**
» **film thickness from 150 up to 1.500 nm**
» **no change in haptic quality of substrate**
» **scratch-resistant** (scratch hardness according to DIN EN ISO 1518 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)
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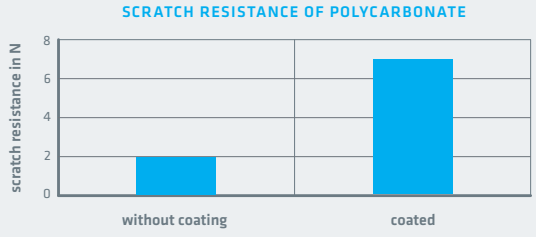

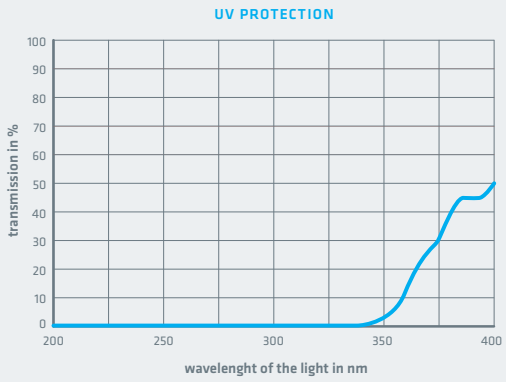

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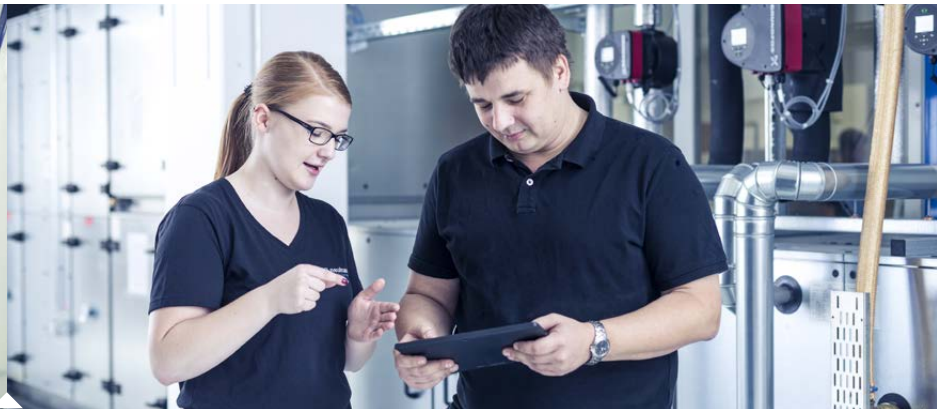
NanoTechnology

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



GBn 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 a 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 to 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 200–1100 nm**
- **rheometers to measure the viscosity of coating solutions**
- **tensiometers for contact angle measurements in order to assess surface tensions**

GB neuhaus
NANO COATING SURFACE

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