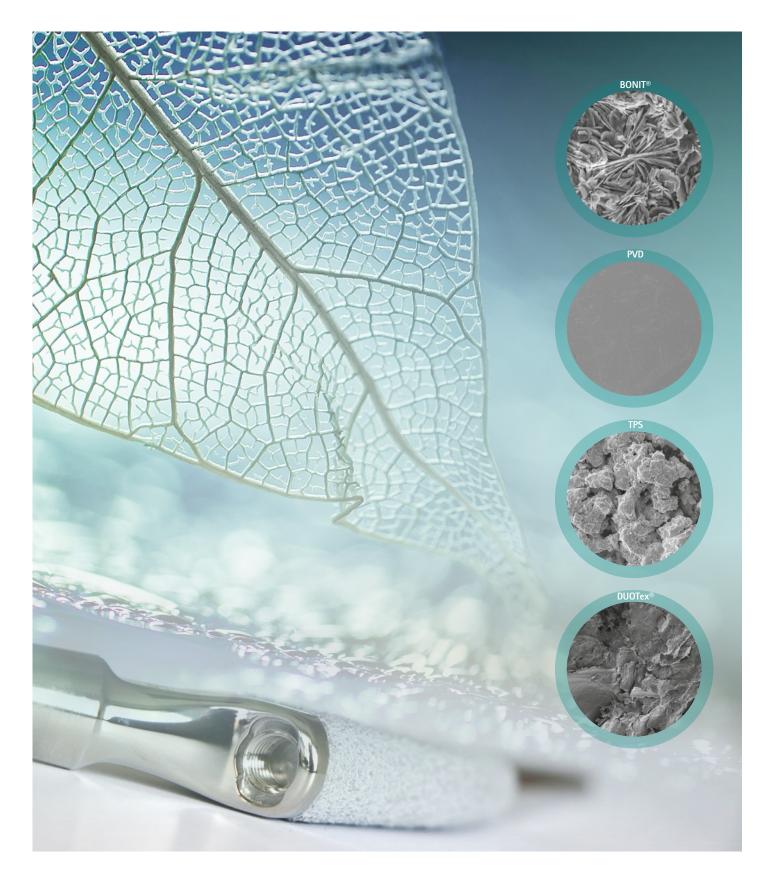


# High-tech surfaces in the service of health





DOT in Rostock with 6 buildings

**Over 30 years in the market** We are a leading global manufacturer of high-tech surfaces for medical devices and have been in the market for over 30 years. During this time, DOT has established itself as a reliable partner for the implant industry and its suppliers.

> In Rostock, we manufacture in six state-of-the-art buildings with a production area of 14,000 m<sup>2</sup>. Currently, more than 560 employees are dedicated to improving the patients' quality of life.

#### Quality without compromise

The continuous provision of first-class coating services requires smoothly functioning quality control and quality management systems. DOT is certified in accordance with ISO 13485 and operates in compliance with FDA guideline 21 CFR 820. We have been registered as a supplier with the FDA since 2011. Both frequent internal audits and extensive customer and FDA audits help to ensure that our quality systems are always at the highest level.

#### Teamwork is the key

Our employees are a decisive factor in our success. Most have been with DOT for many years and are very familiar with the complex manufacturing processes. We work as a team and can rely on each other, day after day. Given this trust, we are able to respond quickly and flexibly to customer requests and can deliver on time even for short-notice surgery appointments.



VPS plant with DOT employee

#### Continuous qualification

The demand for continuous improvement of our services in a rapidly changing medical, technological and regulatory environment goes hand in hand with growing demands on the qualifications of our employees. For many years, we have successfully supported company and inter-company training programs, including university courses during the employment. In this way, we expand their personal potential and strengthen the company's innovative power.

#### **Operating internationally**

DOT has business relationships with implant manufacturers in more than 20 countries. Foreign sales have grown continuously in recent years. Our business processes are fully geared to international business. In 2013, the sum of our overseas experience led to the formation of DOT America, Inc. which focuses its operations exclusively on the U.S. market and is located in northern Indiana.

## Research for a better tomorrow

DOT's surface enhancements are the result of many years of research and development. The associated plant technology was also largely built by our engineers and technicians. Together with customers as well as with partners in universities, research institutions and clinics, we work target-oriented on innovative medical coating solutions for the benefit of patients.

## made by DOT

#### **Orthopedic coatings**

**PVD (Physical Vapor Deposition)**: TiN, TiNbN, TiAIN, ZrN, CrN, DLC hard coatings

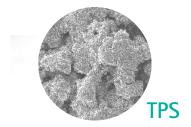
**TPS (Titan Plasma Spray):** Porous titanium coatings for metal, PEEK and ceramic implants

Calcium phosphate coatings: BONIT®

Sprayed HA coatings

Titanium anodization: DOTIZE<sup>®</sup> (Type II), Coloring (Type III)

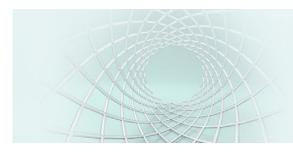






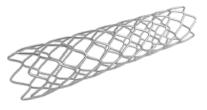






### Coatings for vascular products

- Drug loading of stents
- Drug loading of balloon catheters





- Blasted/etched surfaces: DUOTex®
- Bioactive CaP coatings: BONIT<sup>®</sup>, BONITex<sup>®</sup>
- **PVD coatings for drills and abutments:** TiN, ZrN, DLC hard coatings
- Anodizing prosthetic screws: DOTIZE®
- Color anodizing implant components: Coloring



## made by DOT



Laboratory services at DOT

#### **Customer approval**

The approval of medical devices presents manufacturers worldwide with growing challenges. DOT supports clients in the preparation of product dossiers for regulatory agencies. For this purpose, master files for the main coatings have been filed with the FDA. Coating-specific information packages with relevant test data are provided upon request, and approval issues are also coordinated directly with the regulatory agencies.

#### Measuring and testing, laboratory services

We provide mechanical and microbiological laboratory services with a wide range of measurements and tests. These include coating thickness, hardness or abrasion measurements as well as the determination of the microbiological status. The laboratory services can be used for validation studies and sampling projects as well as tests accompanying the production processes. Test records are provided per customer agreement.

#### Process and product validations

The validation of processes and products is a crucial criterion for manufacturers in the MedTech industry when selecting suppliers. All production processes at DOT are subject to systematic validation and revalidation studies. Customer products are also validated upon request to ensure that coating services are always delivered with the same precision. Validation studies for the transport and the sterilization are also supported by DOT.



Cleanroom packaging at DOT

#### The right finish

The quality of the coatings depends to a large extent on the initial condition of the surface. As an important process step, we take care of the optimal surface preparation through technical polishing. DOT has diversified polishing capabilities for each base material. Independent of the polishing tasks within the coating process, our know-how is also available to customers for the general finishing of implants.

## Laser engraving, packaging, sterilization

Under the motto "All from a single source", we offer our customers services in addition to the surface enhancement. These include laser engraving, cleanroom packaging, printing and application of labels as well as sterilization as a subcontractor. DOT has six Class 7 cleanrooms at its disposal. Packaging concepts are developed together with the customer. We also have standardized packaging solutions for dental and orthopedic implants.

#### Worldwide shipping

The DOT logistics team ensures that customer shipments reach the specified destination as quickly as possible. We work closely with the leading logistics companies. All customs clearance processes for third country shipments are handled internally. We are an Authorized Economic Operator (AEO). As a result, transport times outside the EU can be noticeably reduced.

## made by DOT

#### We look forward to talking with you!

#### DOT GmbH

A member of Eifeler Holdings Charles-Darwin-Ring 1a 18059 Rostock

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#### DOT - Specialist for the coating of orthopedic and dental implants

DOT is one of the world's leading service providers for medical coating technologies for orthopedic and dental implants as well as instruments, including their cleanroom packaging.

With our global supply chain concept, we are an ideal industry partner in medical technology. Our activities help to restore the health of patients worldwide and we thus make a sustained contribution to improve the quality of life.