

# World-class dental implant system BioniQ®



The philosophy behind the system emphasizes simplicity and effectiveness. The BioniQ® implant system provides high-quality treatment at a reasonable cost. It is designed to satisfy both the requirements of the dentist concerning the comfort and flexibility of the treatment as well as the expectations of the patient concerning the esthetic result.

# Easy and effective

## BioniQ® EFFECTIVE

|             | BIO-surface<br>(LASAK) | SLA®<br>(Straumann®) | TiUnite®<br>(Nobel Biocare) | OsseoSpeed™<br>(Astra Tech®) | SLActive®<br>(Straumann®) |
|-------------|------------------------|----------------------|-----------------------------|------------------------------|---------------------------|
| Bioactivity | +                      | -                    | -                           | -                            | +                         |

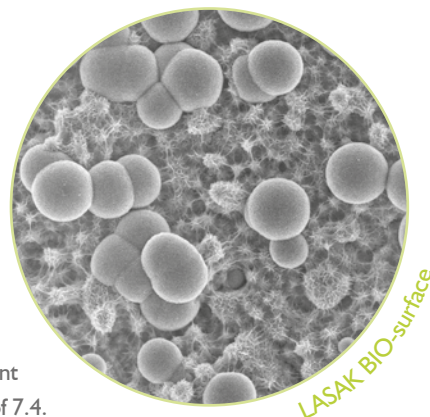
Table: Comparison of the implant surfaces behavior during the bioactivity test in accordance with ISO 23317.

- + Bioactive behavior
- Bioinert behavior

The goal of the in vitro bioactivity test (ISO 23317) was to check the ability of the material to affect the rate of bone material (apatite) formation on the sample surface in the simulated body fluid (SBF). The samples were immersed in 100 ml of SBF for one and three weeks at a constant temperature of 37° C. SBF corresponds to the composition of blood plasma with a constant pH of 7.4.

The implants were gently rinsed with distilled water after removal from the solution. The increase in quantity of calcium and phosphorus and the growth of spherical apatite crystals on the sample surface which signify bioactive material were observed using a scanning electron microscope with energy-dispersive X-ray spectroscopy. These signify a positive result – bioactive material.

Bioactive surfaces accelerate the bone material growth which means faster and safer osseointegration in the patient's body, in contrast to bioinert surfaces.



## BioniQ® EASY

The BioniQ® implant system uses only one fixing screw for implants with a diameter from 3.5 to 5.0 mm.

The system, therefore, saves the clinicians' time when selecting, ordering and storing components. This minimizes the risk of confusing components which would cause problems and additional costs. The ease use of an implant system can be characterized by the number of prosthetic components of the same or similar purpose required for treatment with the most common implant diameters (see below). The pictures show the number of prosthetic platforms, consequently the number of sets of fixing screws, healing abutments, impression copings and abutments, which are needed for implant treatment in the basic diameter range from 3.3 to 5.0 mm.



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