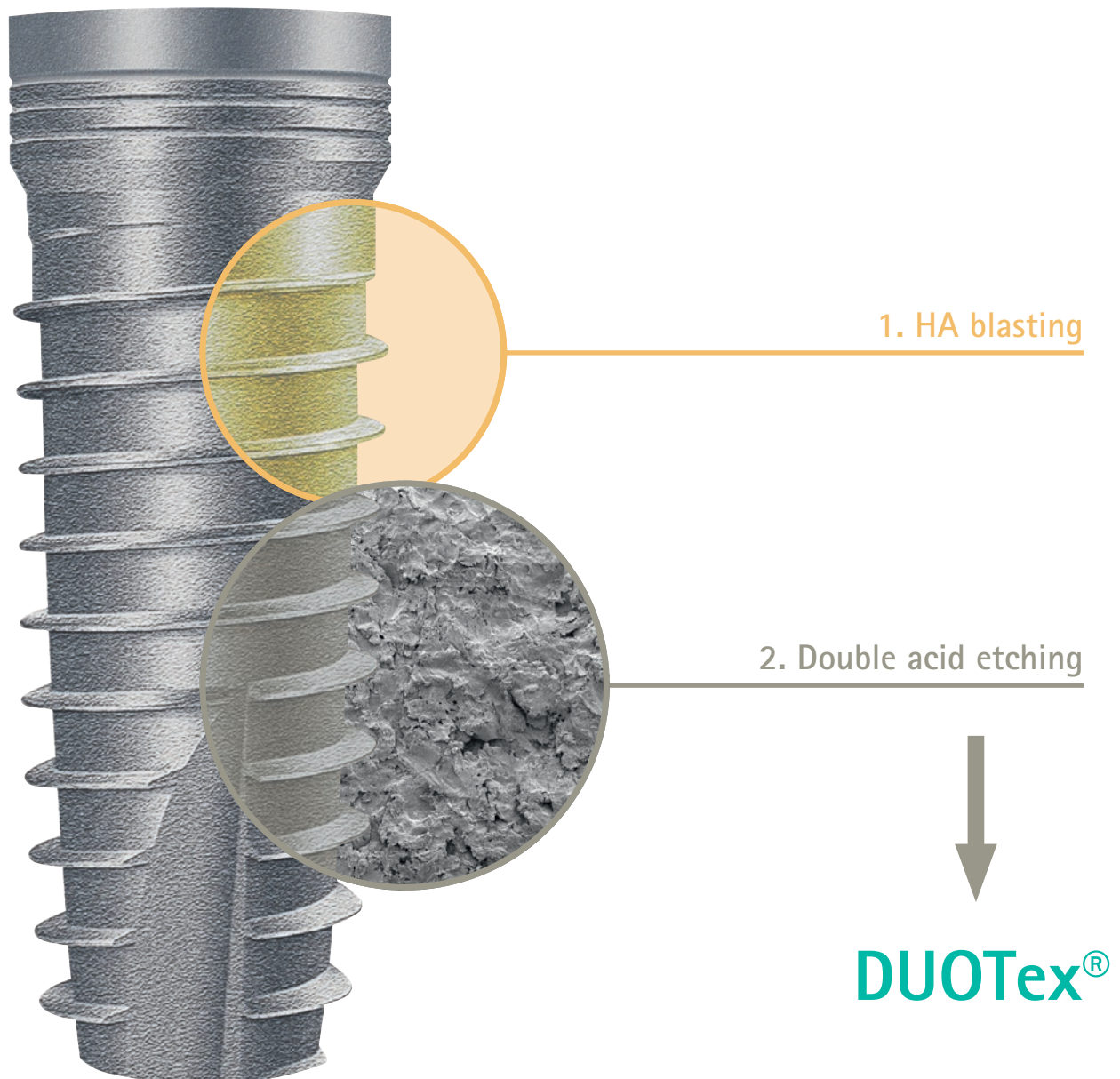


# Our DUOTex<sup>®</sup>-SURFACE for your IMPLANT



*DUOTex<sup>®</sup>  
subtractive surface featuring  
HA blasting and double acid etching*

# DUOTex® Implant Surface

It is a well known fact that subtractive surfaces with an appropriate micro texture, which are created by a blasting and an acid etching process, support the osseointegration of dental implants significantly.

Thus, the implant surface structure does not only influence the formation of a diffusion gradient for chemotactical cytokines but also provides cells with an anchorage area for a three dimensional biological matrix, in which they can migrate onto the implant surface.\*

\*Literature on request

## Description of the Surface

DUOTex® is a subtractive surface that is created by using an HA blasting and a double acid etching process. Its microstructure and surface roughness of approx.  $1.1 \pm 0.5 \mu\text{m}$  are created by using the HA blasting and double acid etching process, leading to excessive surface enlargement.

Sintered HA powder is being increasingly used as blasting media to enhance surface roughness because of its resorbable characteristics. The complete removal of blasting residues is promoted by the solubility of HA. This ensures that a clean surface is achieved without being contaminated by the blasting material.

## Characterization of the Surface

Test criteria	Result
Color	Gray
Roughness	$R_a = 1.1 \pm 0.5 \mu\text{m}$
Cytotoxicity (DIN EN ISO 10993-5)	Not cytotoxic
Durability	5 years
EDX analysis	No contamination, no residual acid ions
Surface structure	Uniform surface texture

## Advantages of the Surface

- Subtractive, osseoconductive surface
- Microstructure for surface enlargement
- Supports osseointegration as a result of its optimized surface structure
- Promotes osteogenic differentiation