

Coating and Surface Treatment Services (Dental)

Service	Brand name	Thickness	Roughness (R_a)	Porosity	Adhesive strength	Fatigue strength	Ca/P ratio	Hardness	Key Features	
Subtractive Surface Treatments	DUOTex®	N/A	$1.1 \pm 0.5 \mu\text{m}$	N/A	N/A	N/A	N/A	N/A	Microstructured, osseo-conductive surface to promote osseointegration	
	CELLTex®*1	N/A	$3.0 \pm 1.5 \mu\text{m}$	N/A	N/A	N/A	N/A	N/A	Macro- and microstructured surface for better osseointegration	
CaP Coatings	BONITex®	$5 \pm 3 \mu\text{m}$	N/A	60 %	$\geq 15 \text{ MPa}$	No impact	1.1 ± 0.1	N/A	Enhancement of secondary implant fixation (rapid bone ingrowth)	
	CELLBIOTex®*1	$5 \pm 3 \mu\text{m}$	N/A	60 %	$\geq 15 \text{ MPa}$	No impact	1.1 ± 0.1	N/A		
	BONIT®	$20 \pm 10 \mu\text{m}$	N/A	60 %	$\geq 15 \text{ MPa}$	No impact	1.1 ± 0.1	N/A		
PVD Coatings	TiN	N/A	$0.5-7 \mu\text{m}$	$\leq 0.05 \mu\text{m}$	N/A	Class 0 and 1	No impact	N/A	$\sim 2,300 \text{ HV}$	<ul style="list-style-type: none"> Minimizing wear Reduction of ion release Increase in wettability Esthetic appearance
	ZrN	N/A	$0.5-6 \mu\text{m}$	$\leq 0.05 \mu\text{m}$	N/A	Class 0 and 1	No impact	N/A	$\sim 2,500 \text{ HV}$	
	DLC	N/A	$0.5-2.5 \mu\text{m}$	$\leq 0.05 \mu\text{m}$ on polished surface	N/A	HF 1-3 (HRC Test VDI 3824)	No impact	N/A	$\sim 700 \text{ HV}$	
Titanium Anodizing	Type II	DOTIZE®	$1-2 \mu\text{m}$	$\leq 3 \mu\text{m} (R_z)$	N/A	$\geq 22 \text{ MPa}$	$\sim 10 \%$ increase	N/A	$\sim 25 \%$ increase	<ul style="list-style-type: none"> Increase in fatigue strength Reduction of fretting Suppression of bone adhesion
	Type III (Coloring)	N/A	20-200 nm	$\leq 0.05 \mu\text{m}$ on polished surface	N/A	$\geq 22 \text{ MPa}$	No impact	N/A	N/A	Improvement of implant and instrumentation identification as well as handling

The values are an indication of our comprehensive offering. The coating specification is defined in accordance with the customer's requirements.

*1 Only offered for pure titanium implants.