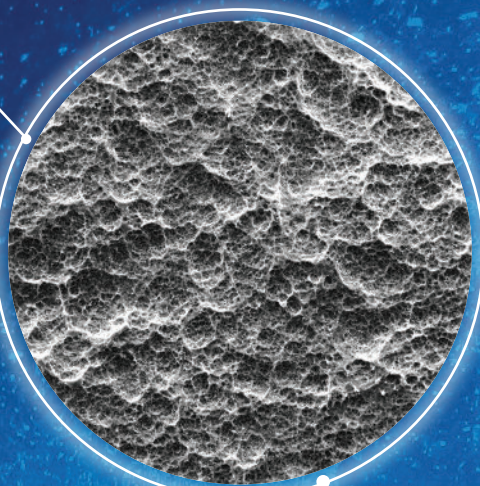


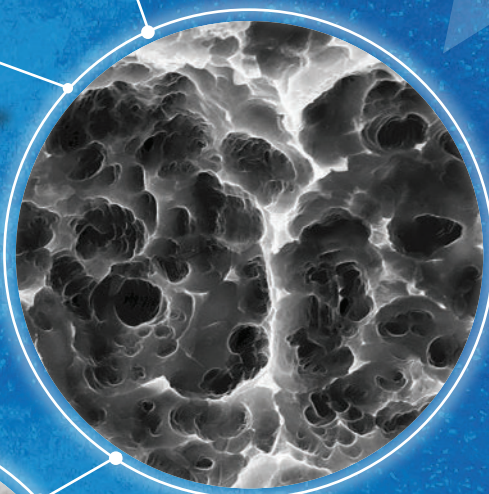
MACRO.

100.0 μm



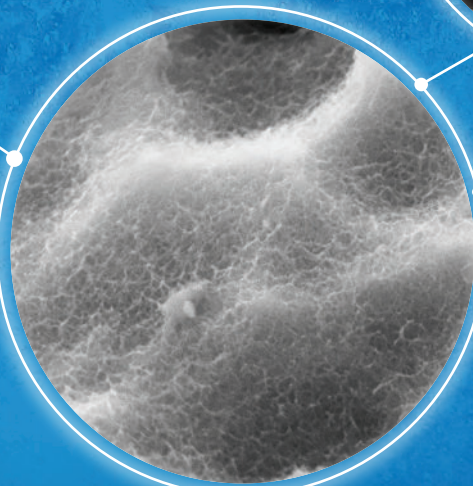
MICRO.

20.0 μm



NANO

3 μm



OSTEOPROMOTIVE
SURFACE TREATMENT

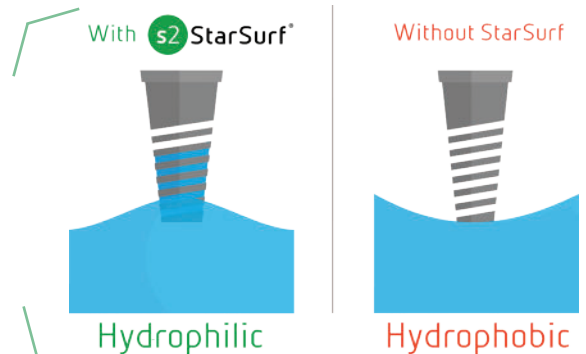
s2 StarSurf[®]

OSTEOPROMOTIVE SURFACE TREATMENT

What is StarSurf®?

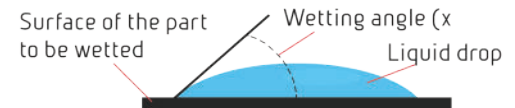
StarSurf® is a specific structural etching chemical treatment dedicated to titanium surfaces. Its aim is to optimize porosity and enhance the wettability of the implant.







Micro and/or Nano etching are key surface treatment steps. This treatment creates a MACRO (10 up to 90µm), MICRO (1 up to 10 µm) and NANO (<1µm) surface structure, in order to enhance the bone ingrowth fixation, accelerating the osseointegration and the patient healing.



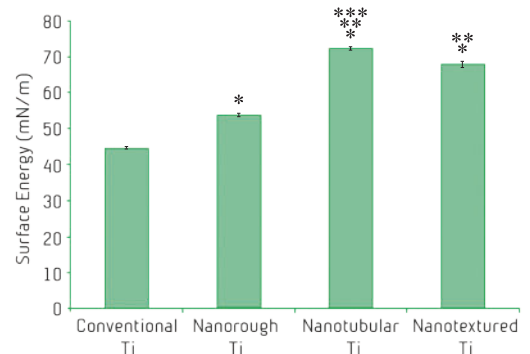
Benefits of StarSurf®

-  Wettability* properties enhancement
-  Osseointegration acceleration
-  Implant lifetime improvement
-  Patient healing time reduction
-  Optimized porosity repartition between all pores classes (Macro, Micro, Nano).
-  Various titanium implants applications such as: dental, CMF, spine, extremities, trauma...
-  Repeatability: Fully automated process



		($x < 10^\circ$)	Spreading
		($x < 45^\circ$)	Good wetting
		($x = 90^\circ$)	Incomplete wetting
		($x > 90^\circ$)	Incomplete wetting
		($x = 180^\circ$)	No wetting

The lower the angle, the better the wettability, 0 is the must have



Total surface energy of the Ti before and after electron beam evaporation (nanorough Ti) and anodization (nanotubular and nanotextured Ti). The surface energy was calculated for each sample by measuring the contact angle of three liquids at the sample surface and entering values into the Owens-Wendt equation. Values are mean \pm SEM; n=4; *p < 0.01 compared to unmodified Ti; **p < 0.01 compared to nanorough Ti, ***p < 0.05 compared to nanotextured Ti.



www.selenium-medical.com | contact@selenium-medical.com

Selenium Medical: 40 rue Chef de Baie, 17000 LA Rochelle FRANCE | Tel: +33 (0)5 46 44 40 82

Selenium America: 6201 Fairview Road, Suite 200, 28210, Charlotte NC USA | Tel: +1 980 215 8506

