

Friadent® plus surface— 3-D topography promoting bone formation

What is the plus surface?

The Friadent plus surface is manufactured using a staged subtracting technique including grit blasting and thermal acid etching of the pure titanium (Grade 2) dental implant. The result is a surface with a unique needle-like micro- and nano topography¹⁻³. The hydrophobic^{4, 5} surface promotes cell proliferation¹, differentiation⁶, matrix mineralization⁷, osteoblast spreading⁸ and other important biological processes related to tissue response.

The Friadent plus surface was introduced in 2003 on Xive implants and 2005 on Ankylos implants.

Extensive documentation

The published literature shows that the plus surface has positive effect on osteocyte density and bone formation at immediately loaded Ankylos implants⁹. Also, high bone to implant contact¹⁰⁻¹⁵, maintained osseointegration and continuous bone remodeling¹⁶ has been histologically documented.

Further documented topics for the plus surface:

- Chemical/elemental^{1, 17}, wetting^{4, 5, 18} and surface topographic^{2, 19-25} features
- In vitro^{18, 26-28} and in vivo^{21, 29-53} biological evaluation, ISQ stability data⁵⁴
- Human biopsy/histological data^{9-14, 16, 55-59}

Conclusion

The pre-clinical documentation on the Friadent plus surface is extensive and shows that this implant surface is safe, biocompatible and osteoconductive.

For more information on Friadent plus implant in clinical use, please refer to implants.dentsplysirona.com/ankylos

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