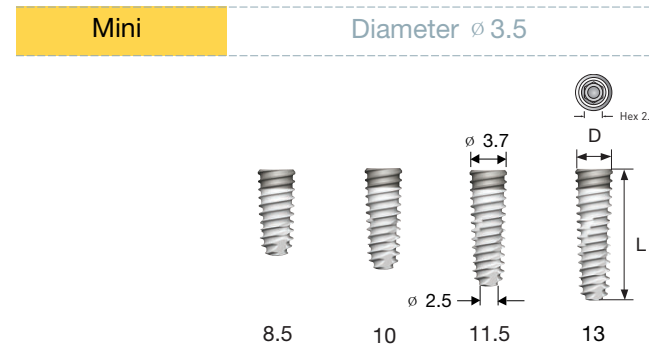


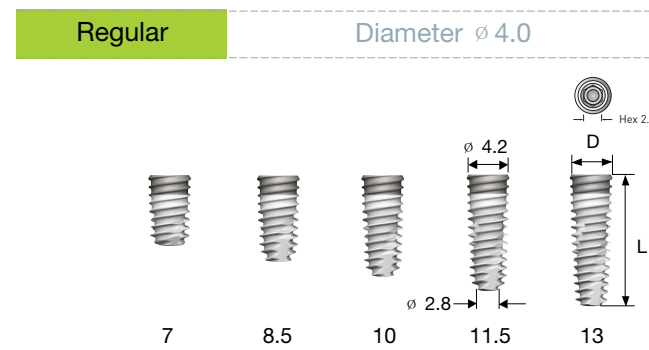
TSIII HA Fixture Line Up

M **R** Connection

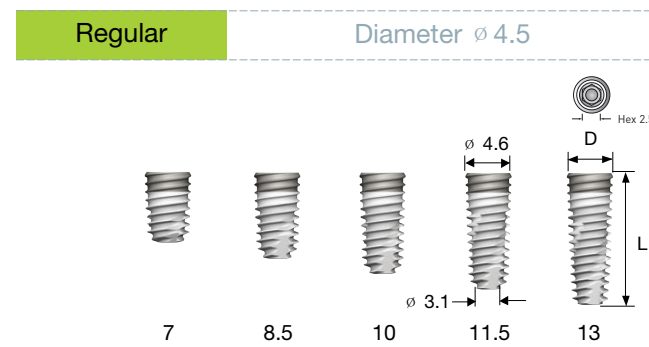
* Actual size may be different.



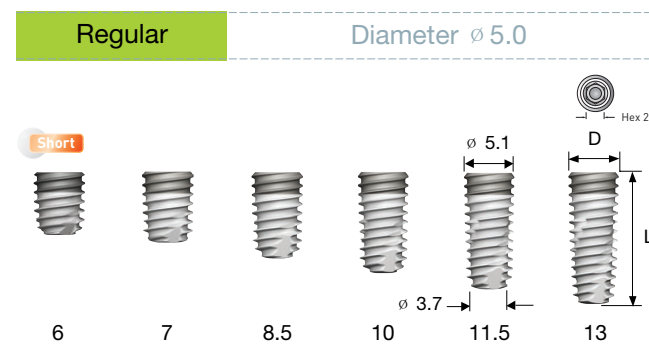
Connection	Mini
L \ D	ϕ 3.5
7	-
8.5	TS3M3508H
10	TS3M3510H
11.5	TS3M3511H
13	TS3M3513H



Connection	Regular
L \ D	ϕ 4.0
7	TS3S4007H
8.5	TS3S4008H
10	TS3S4010H
11.5	TS3S4011H
13	TS3S4013H



Connection	Regular
L \ D	ϕ 4.5
7	TS3S4507H
8.5	TS3S4508H
10	TS3S4510H
11.5	TS3S4511H
13	TS3S4513H



Connection	Regular
L \ D	ϕ 5.0
6	TS3S5006H
7	TS3S5007H
8.5	TS3S5008H
10	TS3S5010H
11.5	TS3S5011H
13	TS3S5013H

NoMount Fixture Product Code (ex:TS3S4011H)

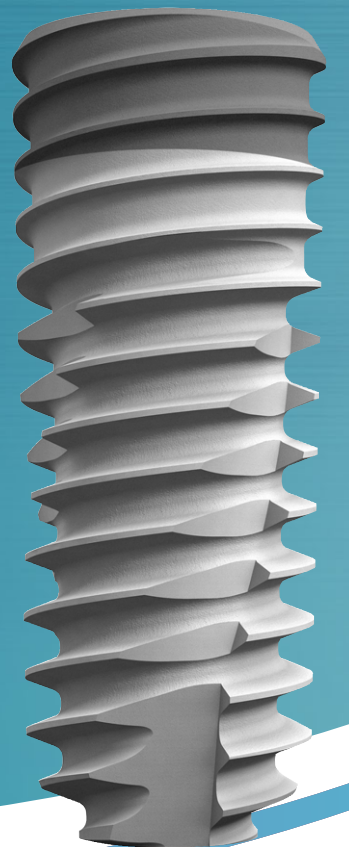
Pre-mounted Fixture (Simple Mount) Fixture + Mount + Cover Screw : **B** + Product Code (ex:BTS3S4011H)

OSSTEM[®]
IMPLANT

HEAD OFFICE
8th FL, WorldMeridian Venture Center II, 426-5, Gasan-dong, Geumcheon-gu, Seoul, Korea
Tel : 02-2016-7000 Fax : 02-2016-7001 www.osstem.com

Edition 02 / 2013

TSIII HA Implant System Catalog & Manual

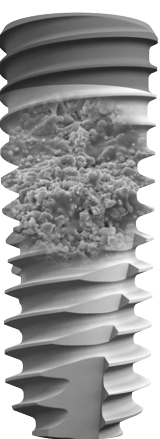


OSSTEM[®]
IMPLANT

OSSTEM HA surface

OSSTEM HA surface

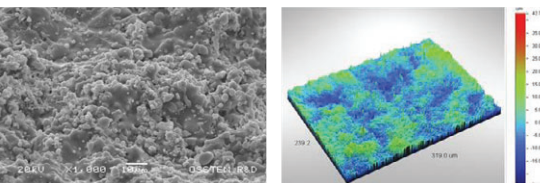
OSSTEM HA Surface



OSSTEM[®] HA Surface IMPLANT

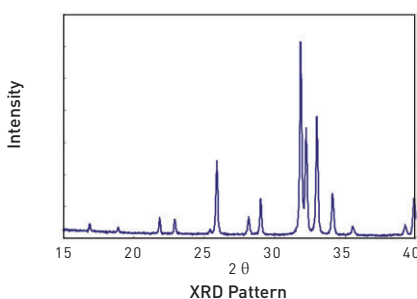
HA : HydroxyApatite coated surface

- Optimal morphology : combination of crater and micro-pit
- Optimal surface roughness : Ra 2.8~3.1 μm
- Early cell response and bone healing : 40% higher than RBM
- Early bone healing : 40% higher than RBM
- Early loading possible after 4 weeks of implantation

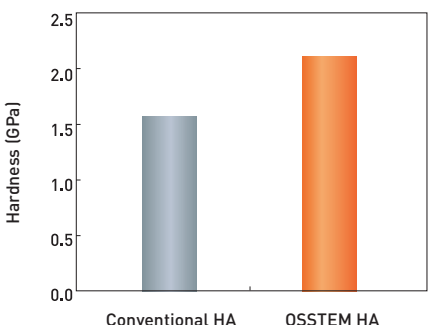


SEM Image and Optical Surface Profile

Surface Layer Properties



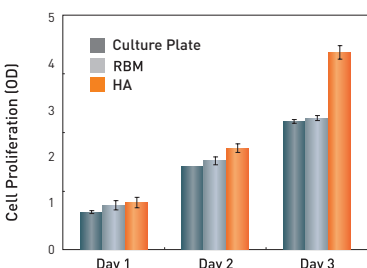
Above 98% crystallization degree
at HA coated layer



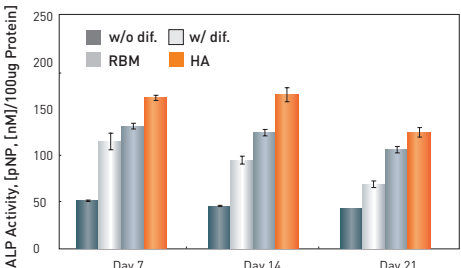
30% hardness improvement with HA coating

Early Cell Response

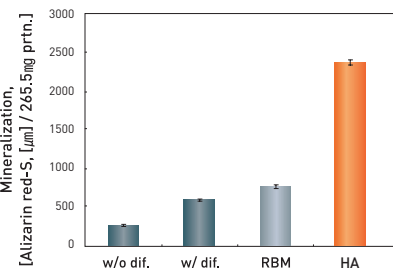
* Improvement of ALP Activity by 24 and Alizarin Red-S assay(Mineralization) by 210% compared to RBM surface



Cell proliferation on the HA

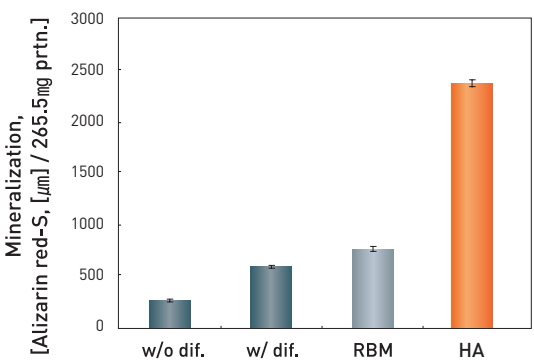


ALP activity on the HA



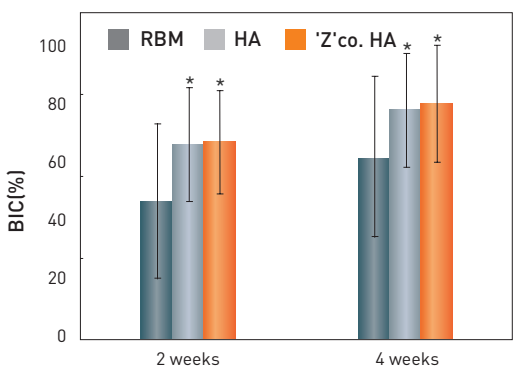
Mineralization on the HA

Early Cell Response

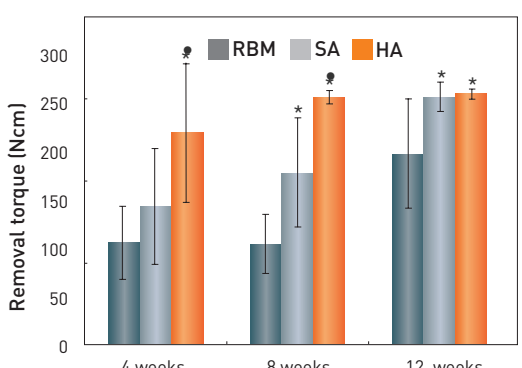


Mineralization on the HA

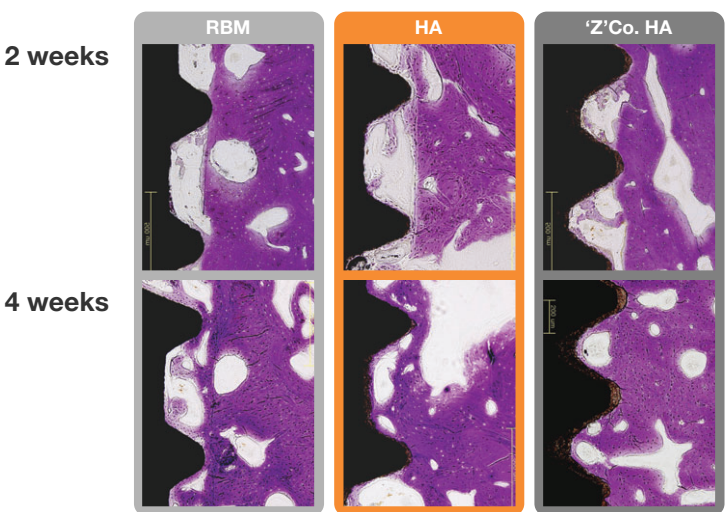
Pre-clinical Study



*p < 0.05, RBM vs. OSSTEM HA or 'Z' Co.HA



*p < 0.05, RBM vs. SA or HA; *p < 0.05, SA vs. HA



40% improvment on bone
regeneration on micro pig
compared to RBM and similar or
equivalent to competing 'Z'
company's HA surface implants.

BIC(Bone-to-Implant contact),
12 micro pigs, mandible, n=8