

ZIRCONIUM-NIOBIUM  
ZONED TRABECULAR BONE CEMENTLESS KNEE

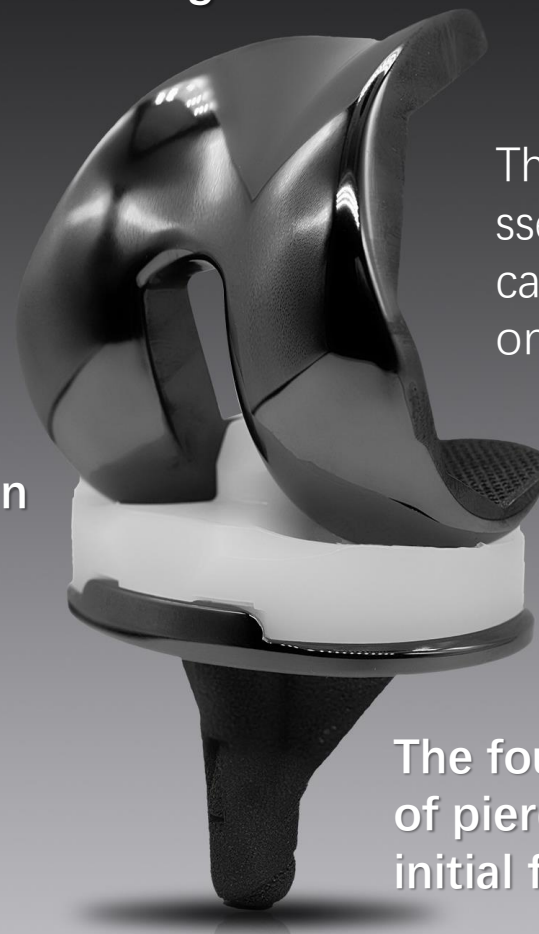


**JUST**<sup>®</sup>  
M E D I C A L

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High bonding strength of metallic trabecula with solid body is achieved with 3D printing for one-batch forming

Friction interface made of zirconium oxide and niobium alloy biological ceramics offers a friction coefficient as low as half of that of Co-Cr-Mo Alloy.

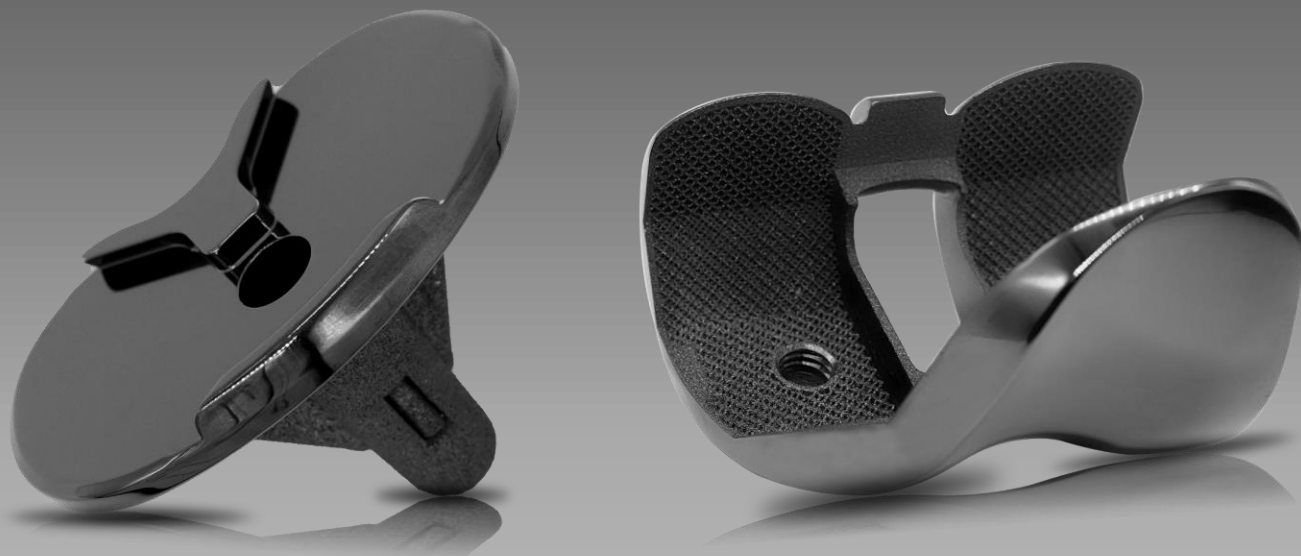


The gradient distribution of bone trabecula of osseointegration interface improves the mechanical fit of the prosthesis and bone ingrowth for long-term stability

The four-quadrant design with a combination of piercing claw and side wings for improved initial fixation

Low artifacts, little interference to MRI

Excellent corrosion resistance.  
Reduced the wear rate of the joint friction interface.



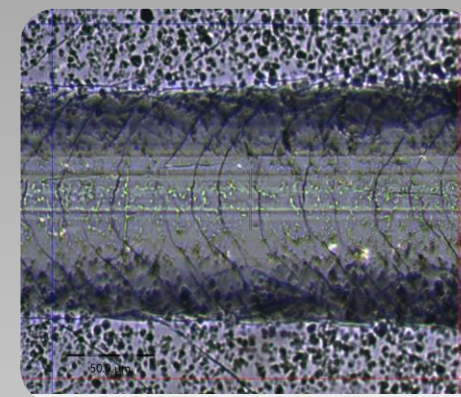
Hardness >12GPa

Thickness >5 $\mu$ m

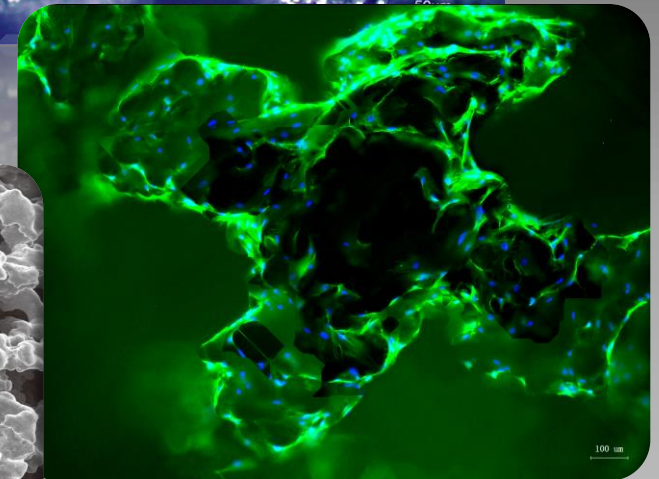
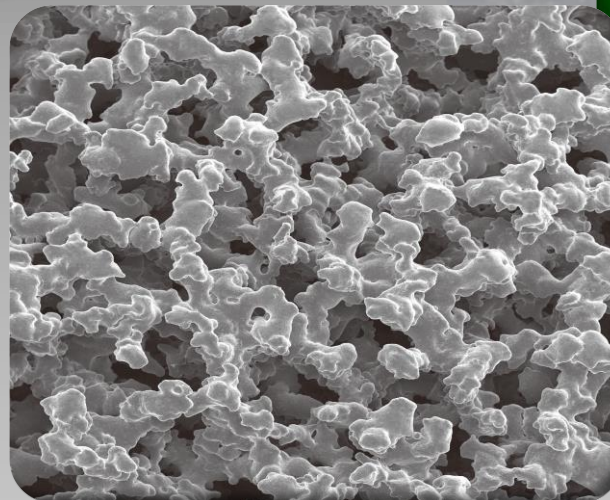
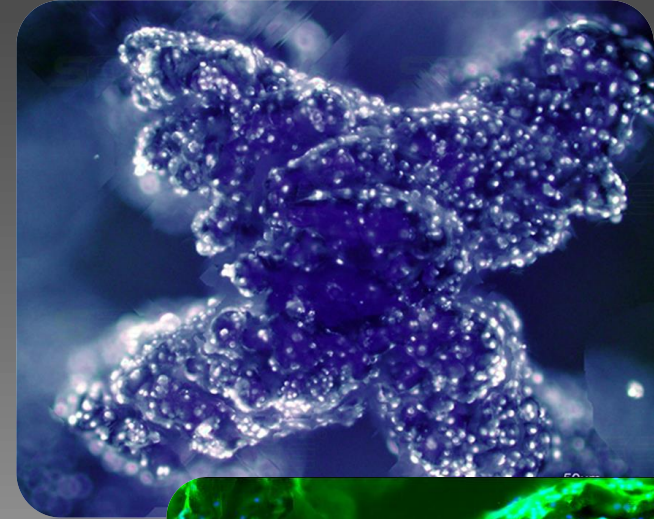
Roughness < 0.02 $\mu$ m

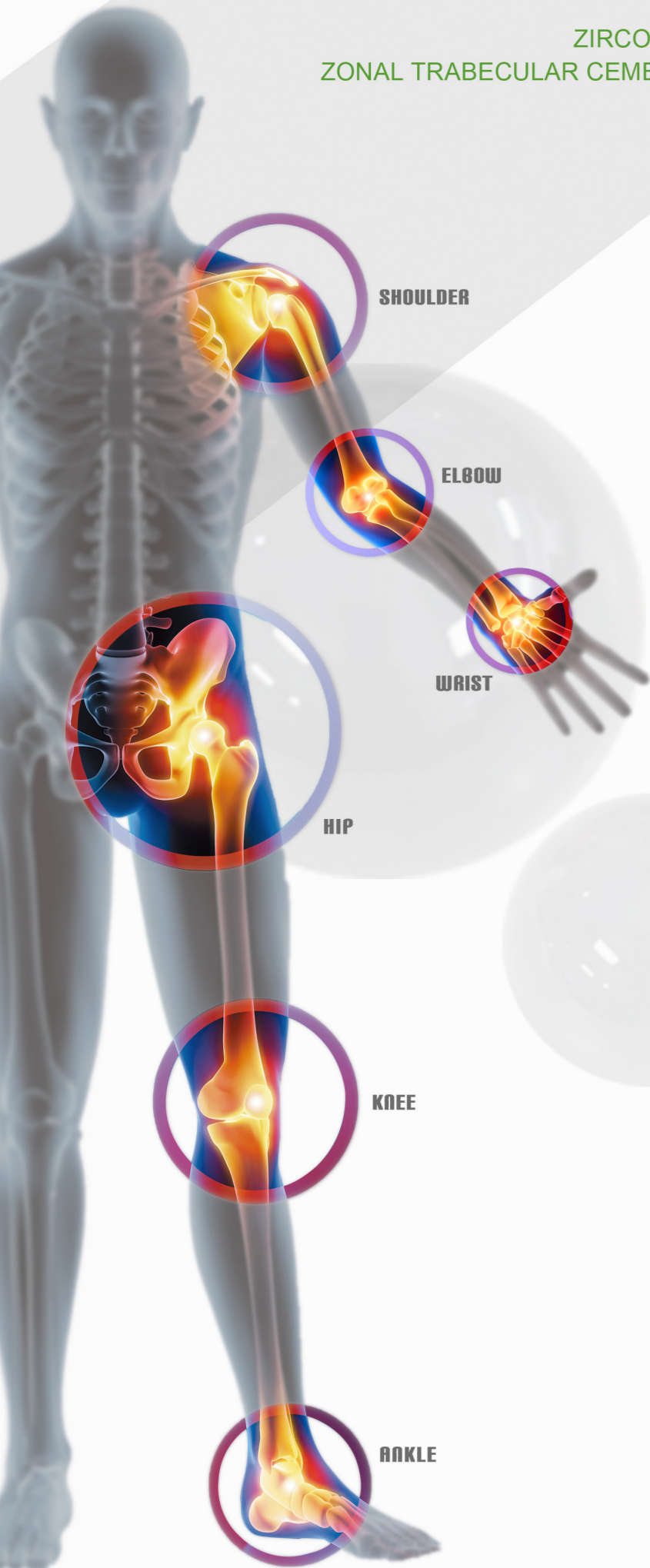
Young's modulus > 190GPa

Contact angle <60



Ideal biocompatibility, low sensitization and good for osseointegration.

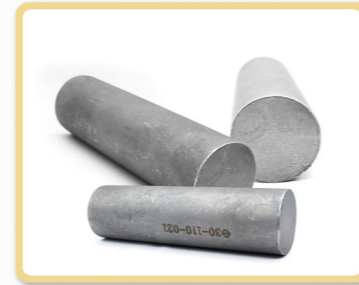




## Raw Material and Processing



Powder



Bar



Semi-finished



Mechanical testing bar



Semi-finished



Excellent corrosion resistance and low friction.  
 Excellent biocompatibility and low sensitization to enhance osseointegration.

Low artifacts and little interference by MRI

High bonding strength of trabecular metal with the solid body is achieved with 3D printing. Integrally formed.

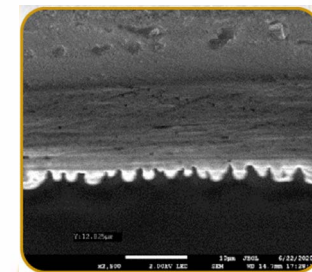
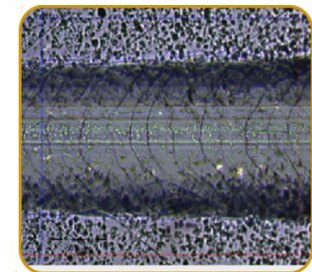
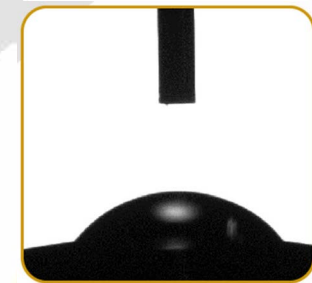
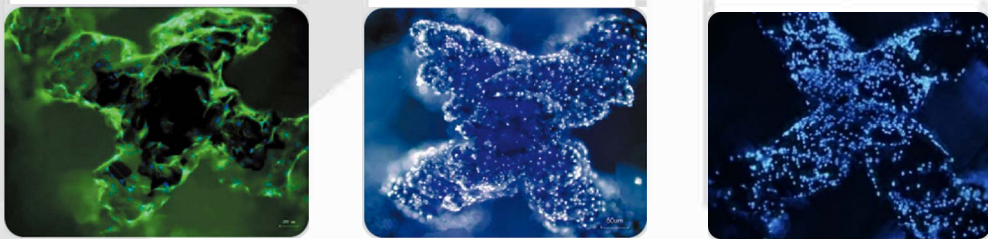
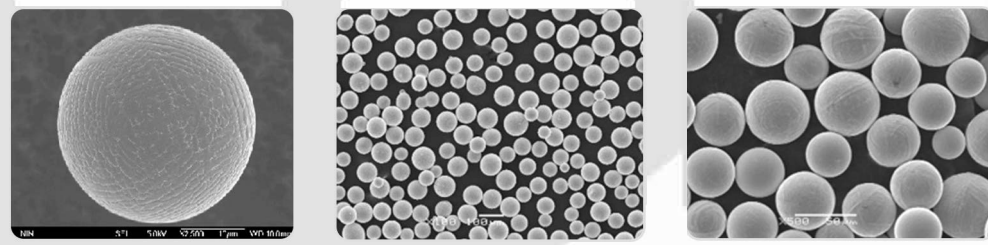


The gradient distribution of trabecular metal at osseointegration interface improves the mechanical adaptability of the prosthesis, facilitating bone ingrowth for long-term stability.

The four-quadrant design with a combination of piercing claw and side wings for improved initial fixation.

Friction interface made of zirconium oxide niobium alloy biological ceramics offers a friction coefficient as low as half of that of Co-Cr-Mo Alloy.

## STRUCTURAL PARAMETERS



- Hardness >12GPa
- Thickness >5 μ m
- Roughness <0.02 μ m
- Contact angle <60
- Young's modulus >190GPa



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