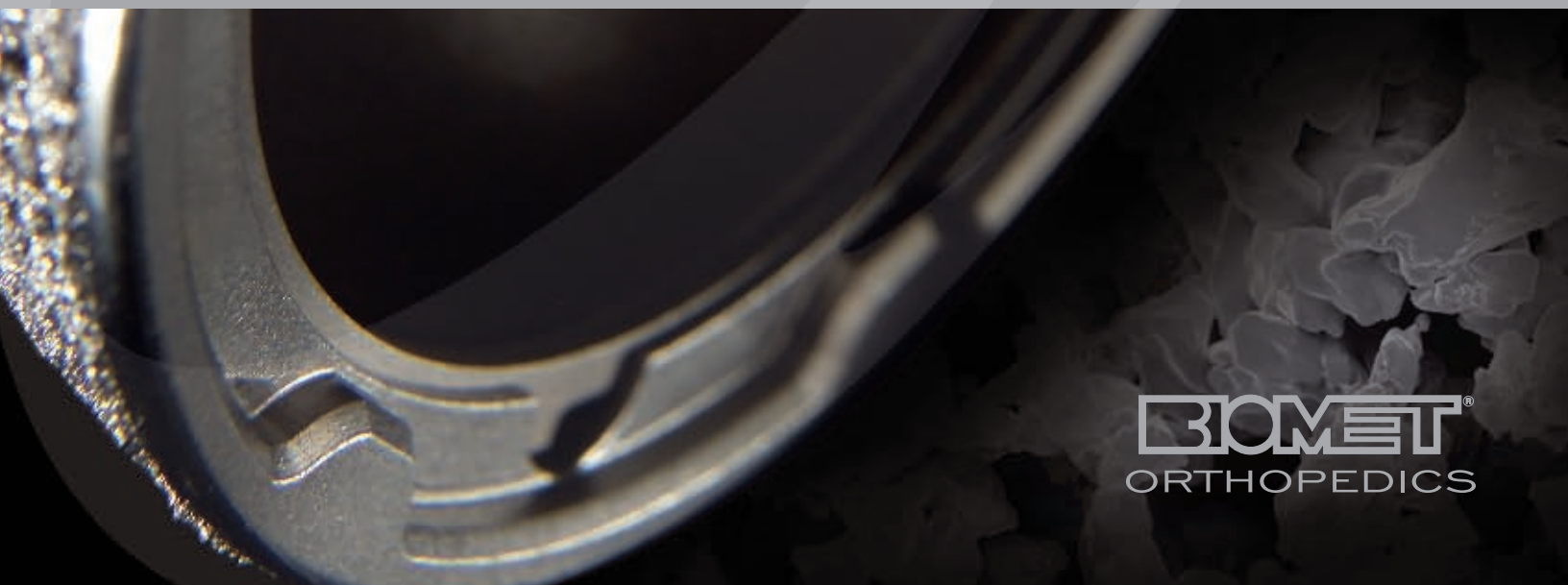
clinically proven material.
advanced porous technology.

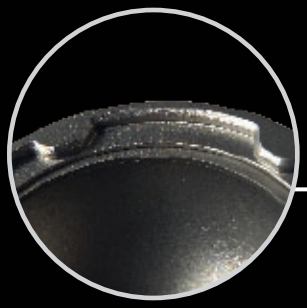
REGENEREX™ RINGLOC®+
Modular Acetabular System



BIOMET®
ORTHOPEDICS

RINGLOC®+: NEXT GENERATION CUP FEATURES

Building on the success of unparalleled RingLoc® technology, the new RingLoc®+ shell design offers next generation cup features paired with advanced Regenerex™ porous titanium construct.

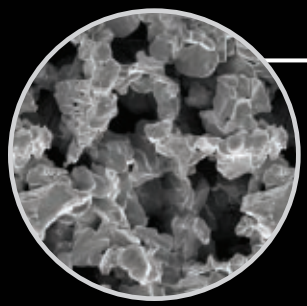


Extended rim

Designed to prevent soft tissue entrapment between shell and liner

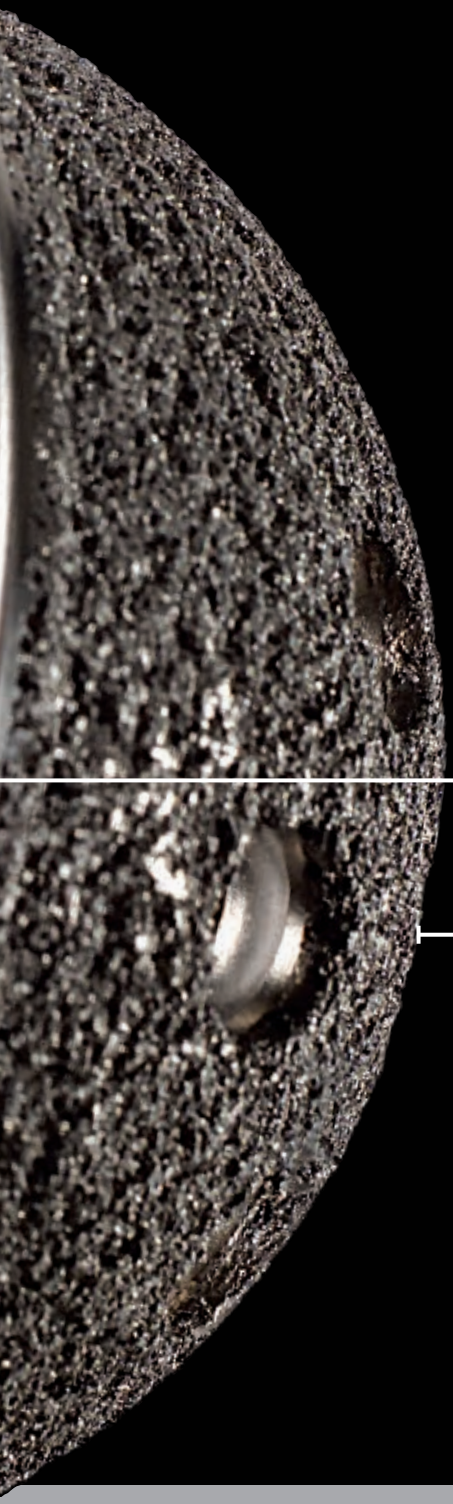
Regenerex™ Porous Titanium Construct

Unites clinical history of titanium with an enhanced interconnecting pore structure for rapid bone ingrowth.



regenerex™
porous titanium construct

RINGLOC®+
acetabular series



Un-lock/re-lock mechanism +

Allows for easy disassembly without damaging the liner**

Large dome hole +

Designed for ease of insertion

Solid

Limited hole

Multi-hole

**Any time the liner is removed, it is recommended that the locking ring be removed and replaced with a new one. If the liner is damaged in any way, a new liner should be utilized.

RINGLOC®: UNPARALLELED LOCKING TECHNOLOGY

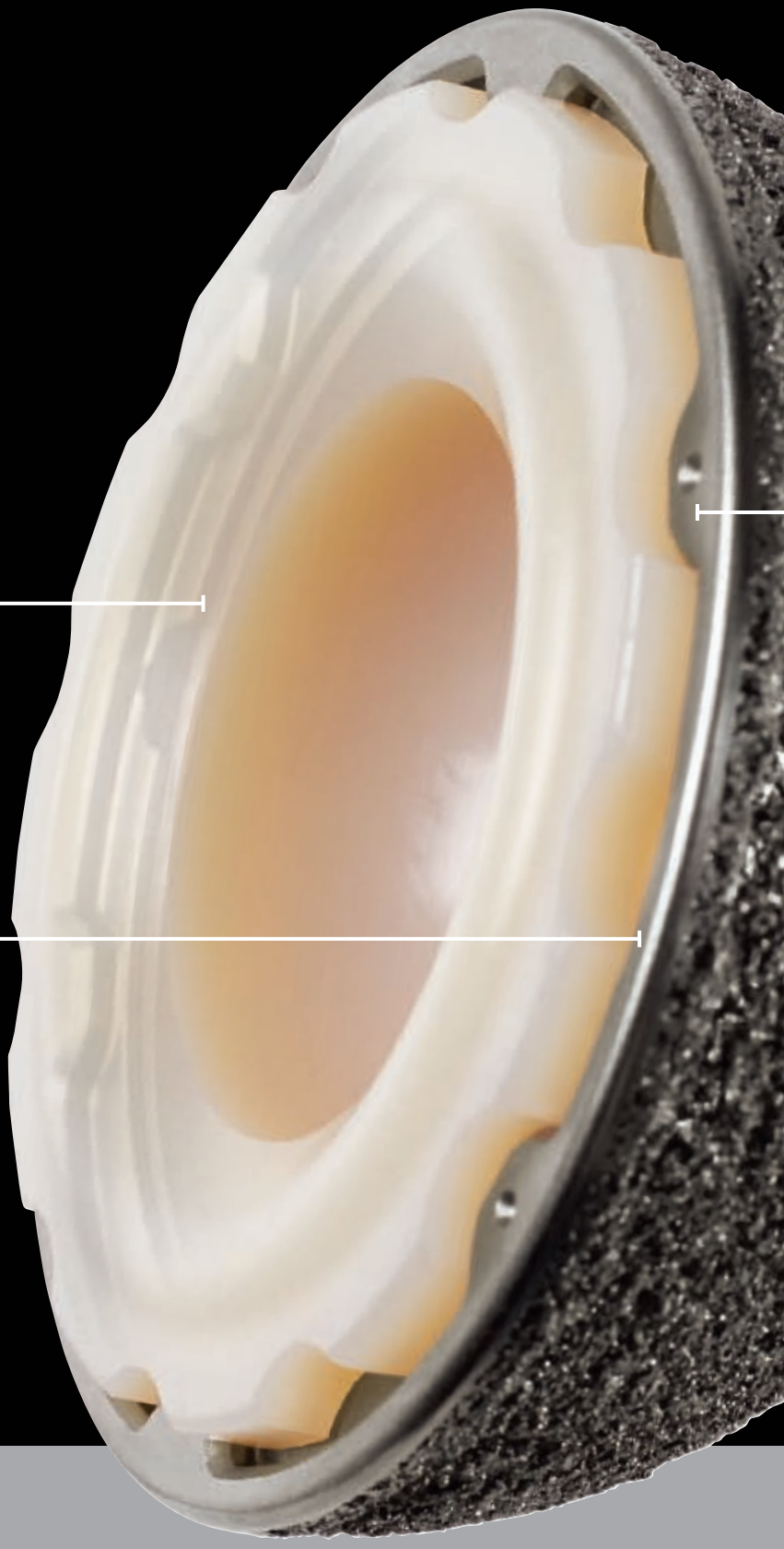
Biomet's RingLoc® acetabular components have redefined the standard of acetabular technology. Testing by independent laboratories has rated RingLoc® technology among the highest in terms of push-out, lever-out and congruity of the implant as well as the lowest in micromotion.[2–5]

Unparalleled RingLoc® locking technology

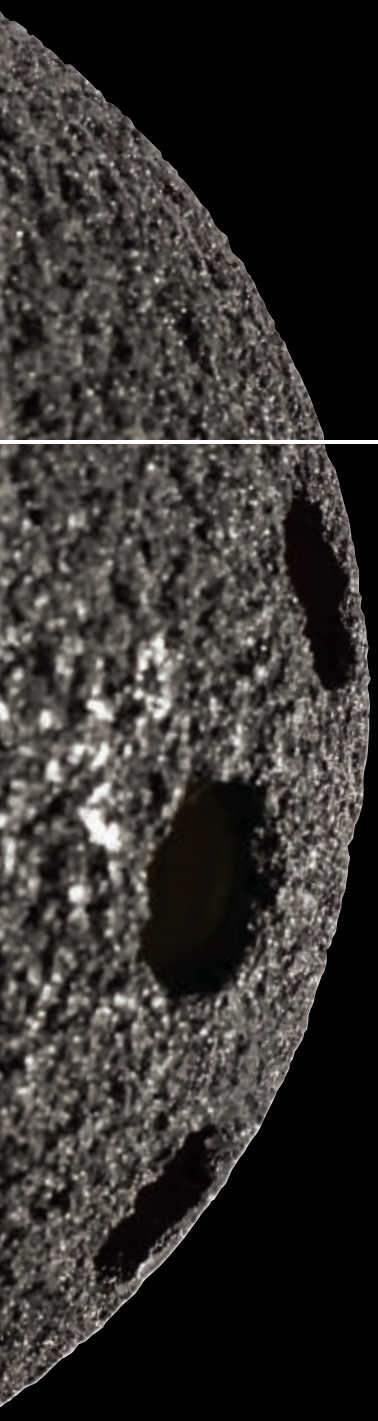
Achieves maximum push-out and lever-out strength with lowest micromotion of independently tested competitive systems[2–5]

Fully congruent design

Maximizes congruency at the liner-to-shell interface to help minimize micromotion

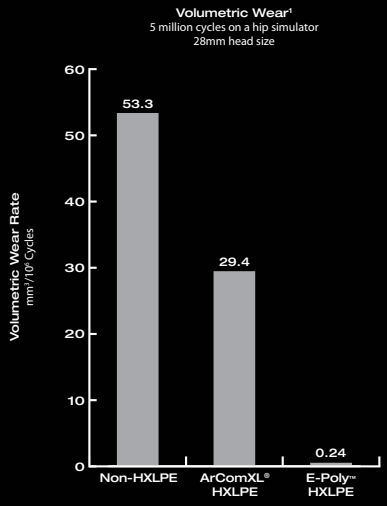


RINGLOC®+
acetabular series



Anti-rotational tabs

Six or eight tabs create an interference fit with the notches on the liner to provide for maximum rotational stability and minimum micromotion



Ultra-low wear with large heads

Combine with E-Poly™ HXLPE for the optimal combination of fixation and low wear. 40mm E-Poly™ liners demonstrated 95% lower wear than 36mm clinically proven ArCom® liners[6]

E-Poly™
HXLPE

regenerex™
porous titanium construct

VERSATILE MODULAR DESIGN FEATURING REGENEREX™ POROUS TITANIUM CONSTRUCT

Regenerex™ Porous Titanium Construct is a revolutionary technology engineered for rapid bone ingrowth by uniting the proven clinical history of titanium with an enhanced interconnecting pore structure.

Integrated with Biomet's unparalleled RingLoc® technology, only the Regenerex™ RingLoc®+ Modular Shell offers new next generation RingLoc®+ cup features, which have been engineered to meet the needs of the orthopedic community.

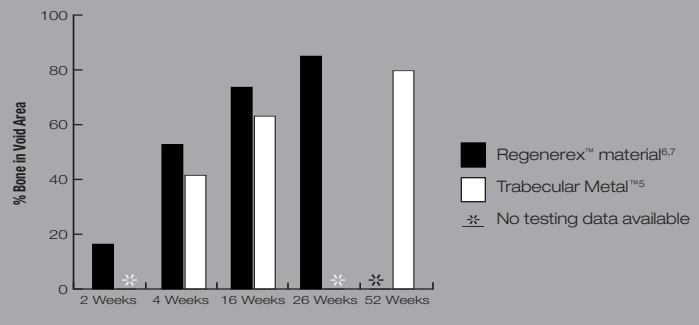
Rapid bone integration

- Two weeks after insertion, Regenerex™ implants displayed bony integration and vascularization.
- In similar canine studies, Regenerex™ material demonstrated more rapid ingrowth than Zimmer's Trabecular Metal.™[6]

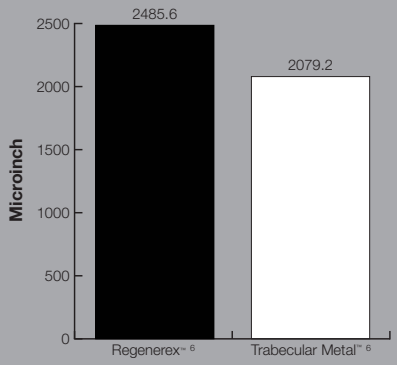
Initial stability

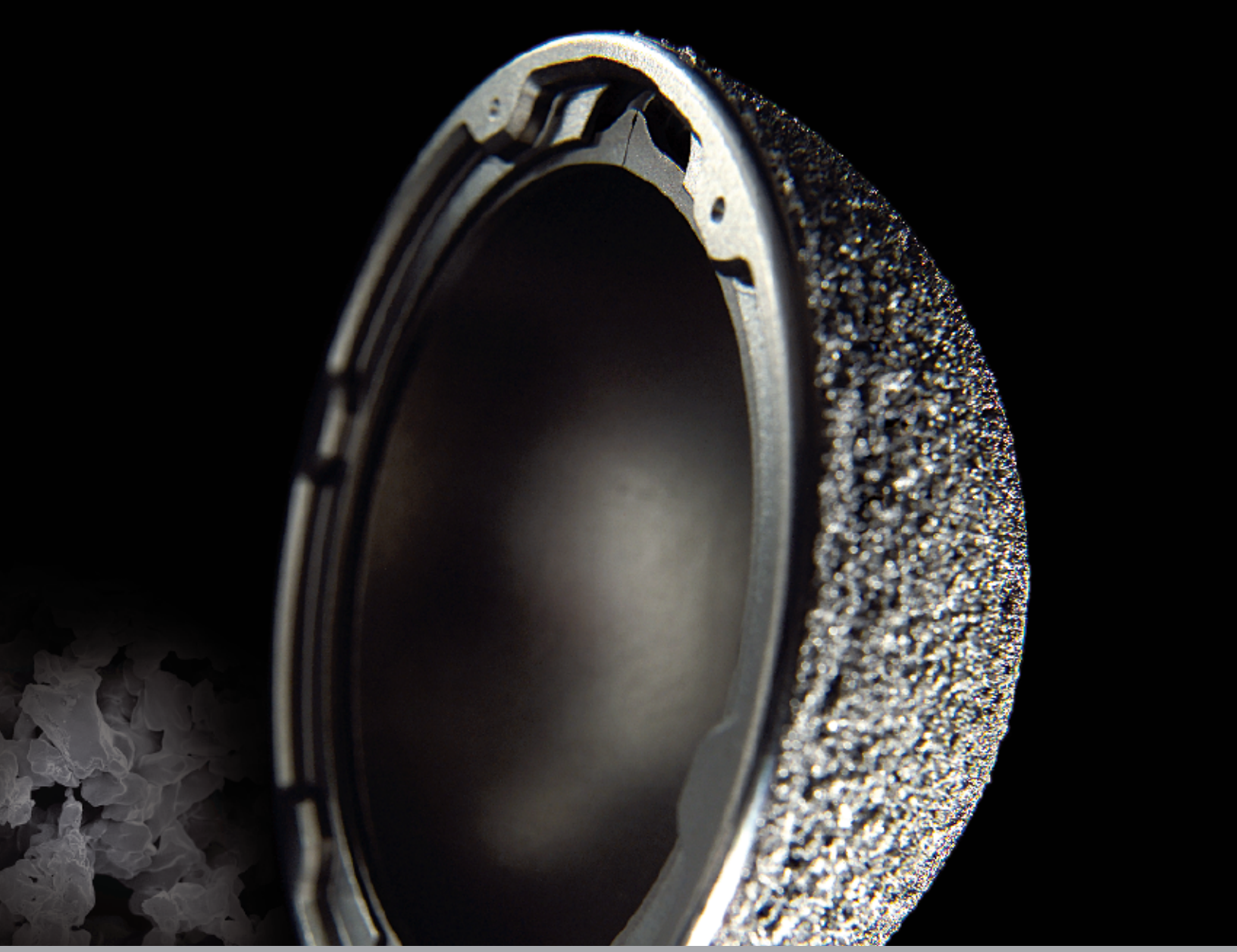
- 16% rougher than Trabecular Metal,™[6] the initial scratch-fit, stability and fixation of Regenerex™ implants is well-suited for acetabular reconstruction.

BONE INGROWTH[1,6]



AVERAGE ROUGHNESS (Ra)

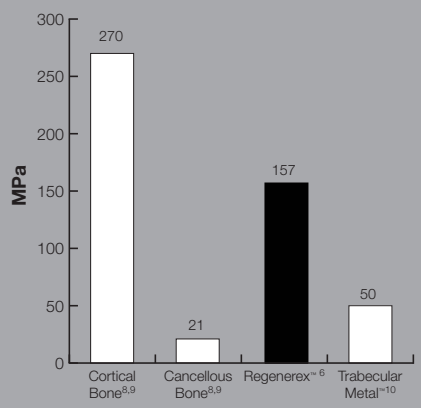




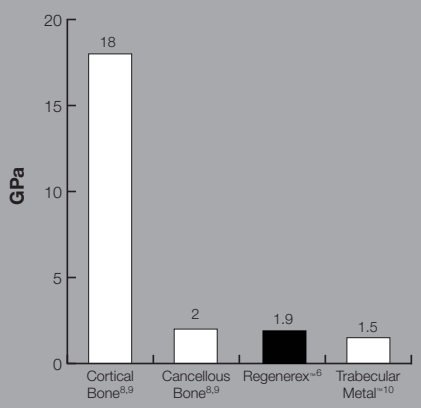
Strong, yet flexible

- 300% stronger than Trabecular Metal™ under compressive loads[1], which reduces the risk of material failure.
- Maintains a compressive modulus similar to cancellous bone.

PEAK COMPRESSIVE STRESS



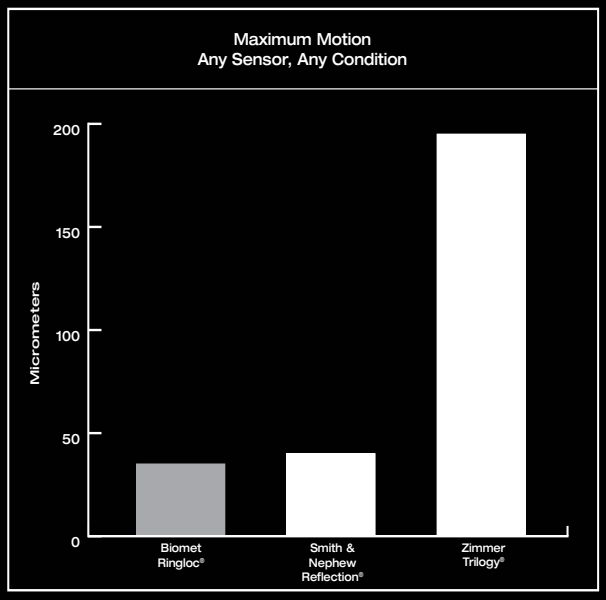
COMPRESSIVE MODULUS



RINGLOC® TECHNOLOGY: PROVEN AFTER 15 YEARS OF CLINICAL USE

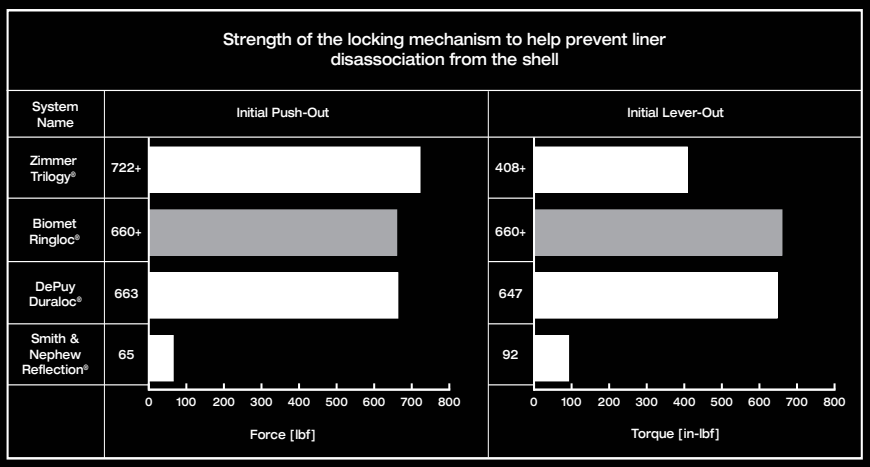
Various forces including toggling, levering and rotation are present during normal acetabular kinematics. To extend acetabular component life and help reduce potential debris generation, the shell-to-liner locking mechanism must be sound. Independent labs have consistently rated Biomet's RingLoc® cups among the best.

- Proven to be a superior locking mechanism for polyethylene liners[2–5]
- High strength of the locking mechanism helps prevent liner disassociation from the shell
- Fully supported liner for even stress distribution
- Lowest micromotion of all tested systems to help eliminate debris generation



Data derived from Fehring TK, Smith SE, Braun ER, Mobley CE, Wang PL, Griffin WL: Motion at the Modular Acetabular Interface: A Competitive Study. Scientific Exhibit presented at the American Academy of Orthopaedic Surgeons. 62nd Annual Meeting. Atlanta, GA. 1996.

RINGLOC®+
acetabular series



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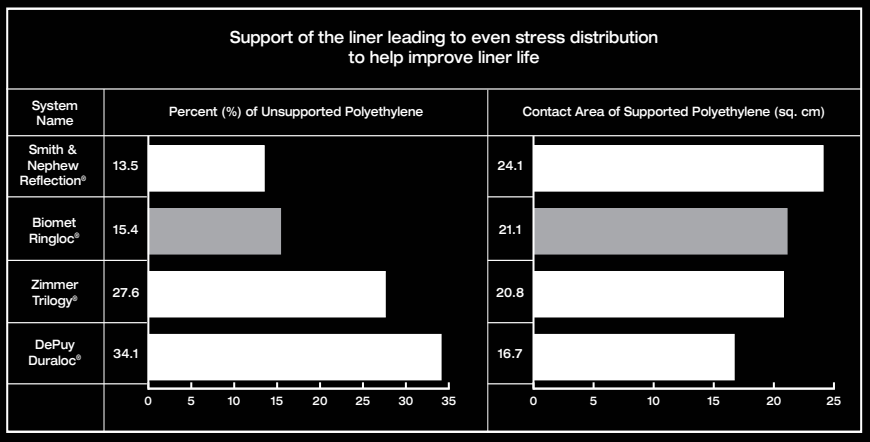
Trodonsky, S. *et al.*: Performance Characteristics of Two-Piece Acetabular Cups Series II. Scientific Exhibit presented at the American Academy of Orthopaedic Surgeons. 62nd Annual Meeting. Atlanta, GA. 1996.

This data is the property of the Orthopaedic Research Laboratories of the Mt. Sinai Medical Center, Cleveland Ohio. The reproduction and distribution of this data are restricted.



Data derived from Rosner BI, Postak PD, Greenwald AS: Cup Liner Conformity of Modular Acetabular Designs. Scientific Exhibit presented at the American Academy of Orthopaedic Surgeons. 61st Annual Meeting. Orlando, FL. 1995.

Data derived from Rosner BI, Postak PD, Greenwald AS: Cup/Liner Incongruity of Two Piece Acetabular Designs: Implications in the Generation Polyethylene Debris. Scientific Exhibit presented at the American Academy of Orthopaedic Surgeons. 60th Annual Meeting. New Orleans, LA. 1994.

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VERSATILITY WHEN YOU NEED IT MOST…

Multiple augment options

- Designed to help maximize acetabular stability
- Available in 12 sizes with multiple screw holes
- Augments can be stacked for complex reconstruction
- Ideal option for complicated revision surgery

Multiple liner configurations

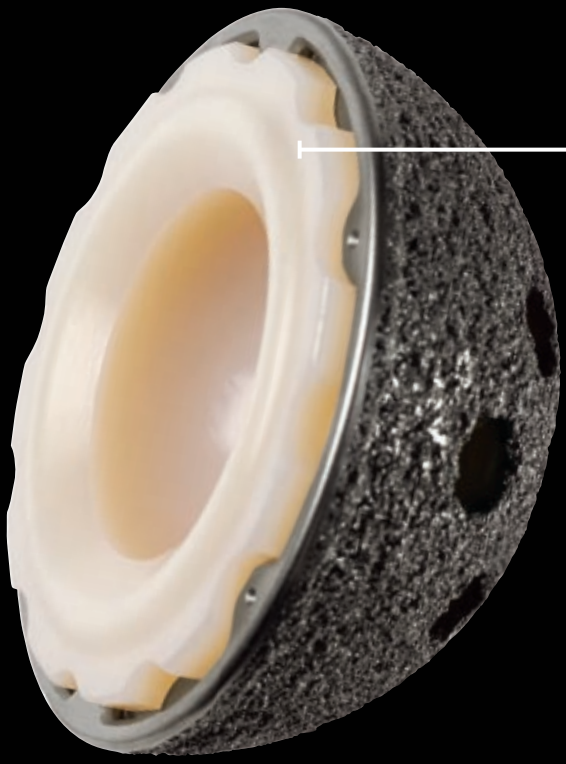
- Available in…

Max-Rom™ Liner

10-Degree Liner

Hi-Wall Liner

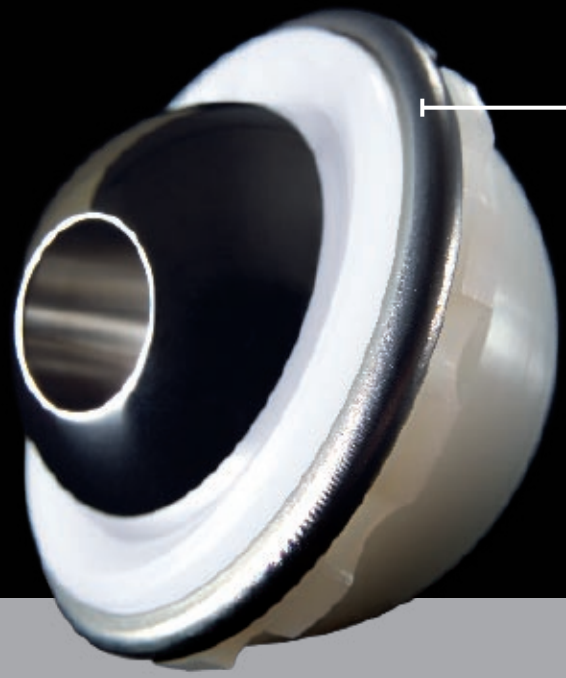
+5mm Hi-Wall Liner



Ultra-low wear with large heads

- Combine with E-Poly™ HXLPE for the optimum combination of fixation and low wear
- 40mm E-Poly™ liners demonstrated 95% lower wear than 36mm ArCom® liners[6]

E-Poly™ HXLPE



Maximum resistance to dislocation

- Combine with Biomet's Freedom® Constrained Liner for patients at high dislocation risk
- Allows for 110 degrees range of motion
- Multiple liner options

References

1. Data on file at Biomet. Bench test results not necessarily indicative of clinical performance.
2. Fehring, T.K. *et al.* Motion at the Modular Acetabular Interface: A Competitive Study. Scientific Exhibit presented at the American Academy of Orthopaedic Surgeons. 62nd Annual Meeting. Atlanta, GA. 1996.
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5. Trodonsky, S. *et al.* Performance Characteristics of Two-piece Acetabular Cups. Scientific Exhibit presented at the American Academy of Orthopaedic Surgeons. 59th Annual Meeting. San Francisco, CA. 1992.
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