

COORSTEK®

Permallon® | Avant

Orthopaedic Ceramics for
Total Hip Arthroplasty





INTRODUCING Permallon® Avant ALUMINA MATRIX COMPOSITE

Permallon® | Avant

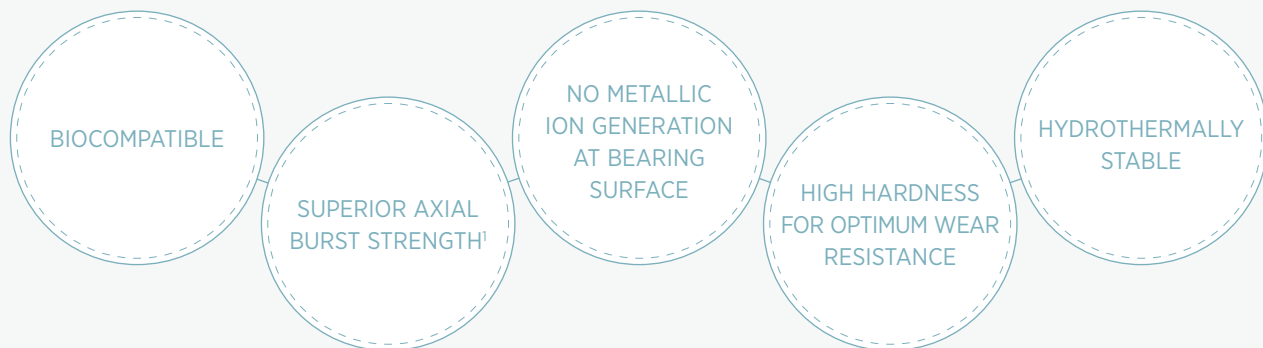
CoorsTek Bioceramics is dedicated to providing state-of-the-art technical ceramics for the medical device industry. As a wholly owned subsidiary of CoorsTek, we are backed by over 100 years of technical ceramics expertise.

LEADING-EDGE ALUMINA MATRIX COMPOSITE

Permallon® Avant is a leading-edge alumina matrix composite developed specifically for use as a ceramic bearing surface for total hip arthroplasty. The microstructure of Permallon® Avant is engineered to incorporate advanced toughening mechanisms to improve mechanical integrity. Proven to provide excellent wear performance for femoral heads, Permallon® Avant offers favorable mechanical performance as compared to the leading ceramic femoral head material.

The chemical composition and physical makeup of the material is metal free and designed to be biocompatible and stable, with reduced sensitivity to hydrothermal aging.

CoorsTek Bioceramics offers standard specifications as well as custom design and manufacturing capabilities for Permallon® Avant orthopaedic hip implant components.



CUSTOM MANUFACTURING

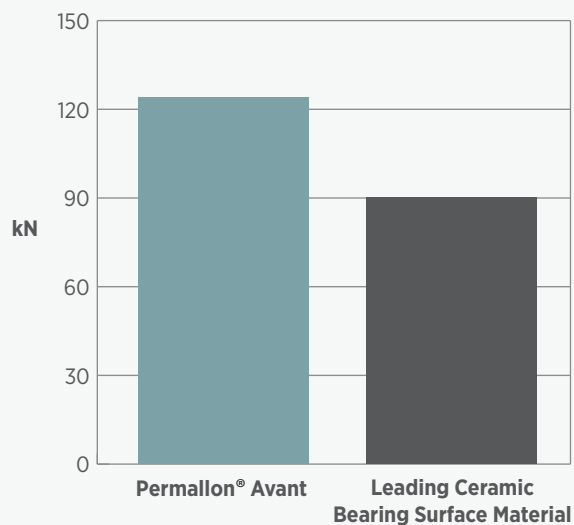
CoorsTek Bioceramics works in partnership with our customers to create custom femoral heads with an expanded range of sizes and design options.

BURST STRENGTH

Permallon® Avant femoral head samples (28-12/14 L tested with a titanium taper) passed fatigue testing and are well in excess of the FDA Guidance for post fatigue burst. The axial burst strength of the Permallon® Avant Femoral Head compares favorably to the leading industry standard material for ceramic femoral heads.¹

The Permallon® Avant femoral heads were subjected to loading that exceeds physiological conditions. In addition, these components are well in excess of the industry standards for strength.

**Axial Burst Strength (ISO 7206-10)
28-12/14 L (+3.5mm) / Titanium Taper**



COORSTEK BIOCERAMICS

CoorsTek Bioceramics manufactures state-of-the-art technical ceramics for the medical device industry. Since 2005, CoorsTek Bioceramics has manufactured over six million products from implant grade materials. With a focus on total joint replacements including ceramic bearing components for Total Hip Arthroplasty, CoorsTek Bioceramics components can also be found in other surgical implant devices for neurological, cardiological, spinal, and radiological applications.

Founded in 1910, CoorsTek is a leading global manufacturer of technical ceramics for the medical, semiconductor, aerospace, automotive and other industries. With over 400 proprietary ceramic material formulations, vertically integrated systems, and unparalleled process capabilities, CoorsTek partners with its customers to make the world measurably better.

Visit www.permallon.com



PARTNER WITH COORSTEK

Our customer focus is the reason we have become the world's leading manufacturer of technical ceramics. To learn more about CoorsTek and our bioceramic capabilities, contact us:

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¹ Haftel, Jon, Chief Engineer, CoorsTek Bioceramics. 2022. "Technical Overview of Permallon® Avant Alumina Matrix Composite Ceramic Material Manufactured by CoorsTek Bioceramics": pp. 10-11. Tested by Static Compression of 28-12/14 L (+3.5mm) Femoral Head with Titanium Taper

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