

Natural Protection at its Core.



Blended Vitamin E antioxidant protection

(α -tocopherol), and cross-linking for long-term oxidative stability, preservation of mechanical properties and performance.

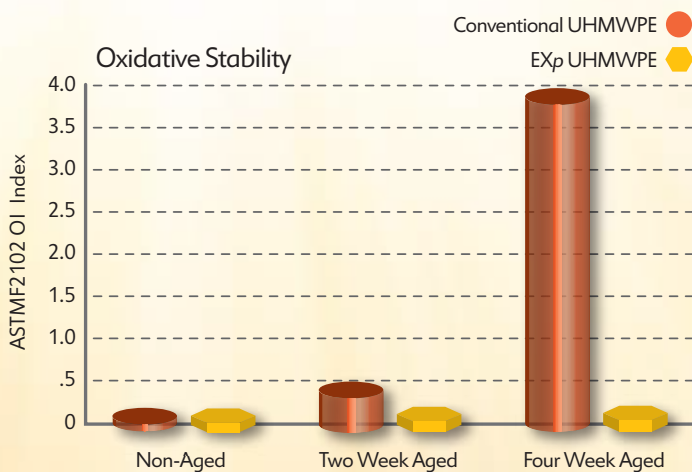


FLEXIBILITY IN //MOTIONSM

Stability

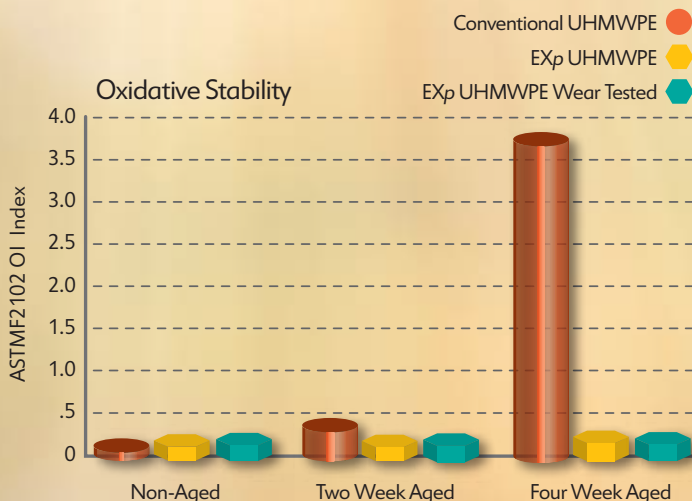
Oxidatively Stable¹

EXp UHMWPE is more resistant to oxidation than conventional cross-linked polyethylene



Long-Term Stability²

EXp UHMWPE remains resistant to oxidation after 5 million cycles of wear testing and artificial aging



Preservation of Mechanical

The Stability and Performance You Demand

EXp Polyethylene Technology represents an optimal blend of UHMWPE, the antioxidant vitamin E (α -tocopherol), and cross-linking for long-term oxidative stability, preservation of mechanical properties and performance.



Properties

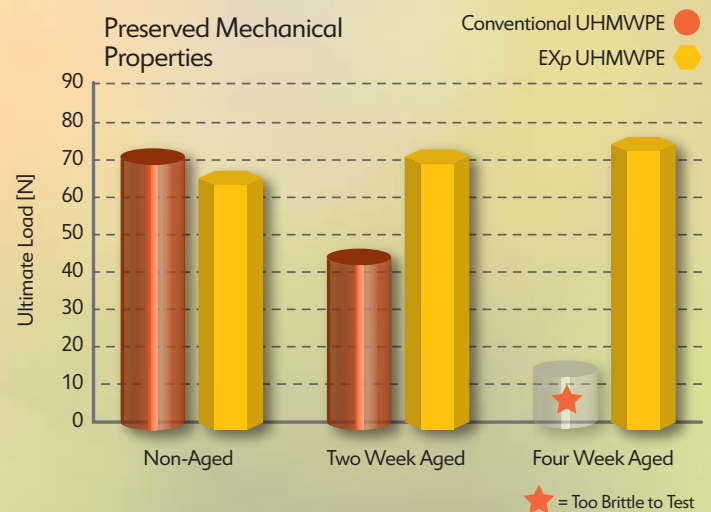


- Unlike other highly cross-linked polyethylenes, EXp requires no thermal processing or infusion of antioxidants to stabilize the material.
- EXp liners experienced no failures as a result of dynamic impingement testing.⁵
- The vitamin E blended into the EXp does not elude from the material during extraction studies.⁶
- The morphology of EXp UHMWPE is consistent with conventional UHMWPE - demonstrating no consolidation defects or voids.⁷

Performance

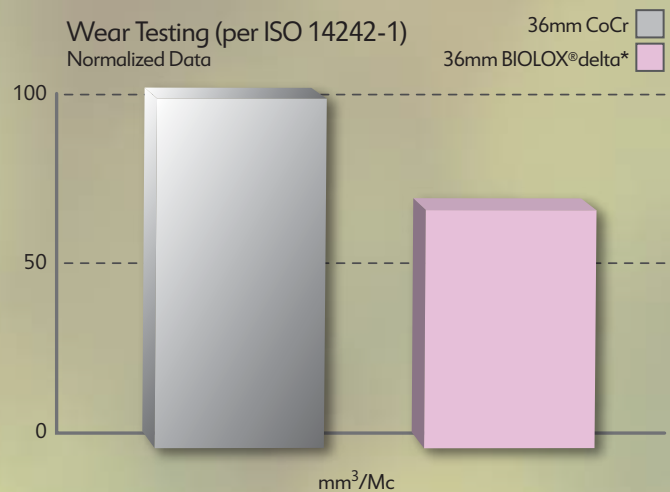
Preserved Mechanical Performance³

EXp UHMWPE retained its mechanical performance after oxidative aging



Reduced Wear⁴

EXp liners demonstrated a 30% reduction in wear against a 36mm BIOLOX® delta head compared to a 36mm cobalt-chrome head



*BIOLOX® delta is a trademark of CeramTec AG.



Bringing Science to Life.

Exp™ technology was developed with the consulting support of Steven Kurtz, Ph.D. and Exponent, Inc. (Philadelphia, PA). Dr. Kurtz, an industry thought leader, is involved with the evaluation of medical device technologies, from a combined analytical, experimental, and clinical perspective. His research activities have

emphasized real-world clinical performance of medical devices, including orthopedic, spine, and cardiovascular implants. Dr. Kurtz is an active member of the American Academy of Orthopedic Surgeons, the Spine Arthroplasty Society, and the American Society for Testing and Materials.

StelKast specializes in the design, manufacture, and distribution of hip and knee implant systems. The Company's mission is to provide high-quality, competitive solutions to meet the challenges of the orthopedic community through clinically proven design concepts and innovative technology.

References 1 through 7: Data on file at StelKast. Bench testing is not necessarily indicative of clinical performance.



FLEXIBILITY IN *MOTION*™

200 Hidden Valley Road
McMurray, PA 15317 USA
Phone 888.273.1583
Fax 724.941.5987
www.stelkast.com
Email: info@stelkast.com

Visit www.stelkast.com for more information on Exp™ Polyethylene Technology and our comprehensive line of ProLine and Proven Gen-Flex orthopedic implants for hip and knee replacement.

ProLine
Hip Replacement Implants™

ProvenGen-Flex®
Knee Replacement Implants