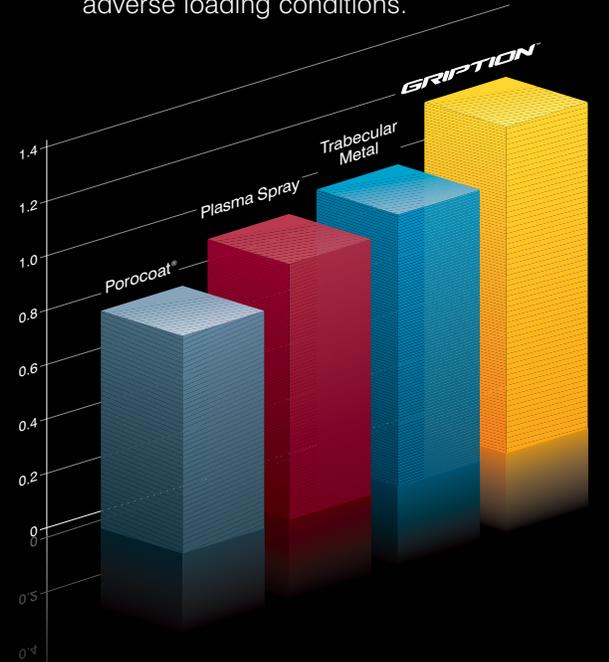


GRIPTION™

The New Look of Fixation

Friction

Micromotion in excess of 150 microns has been shown to compromise bone growth onto implants. Gription™ technology has demonstrated an industry-leading predicted coefficient of friction and is engineered to maintain maximum stability even under adverse loading conditions.



GRIPTION™

Gription™ Coating Technology

Coefficient of Friction

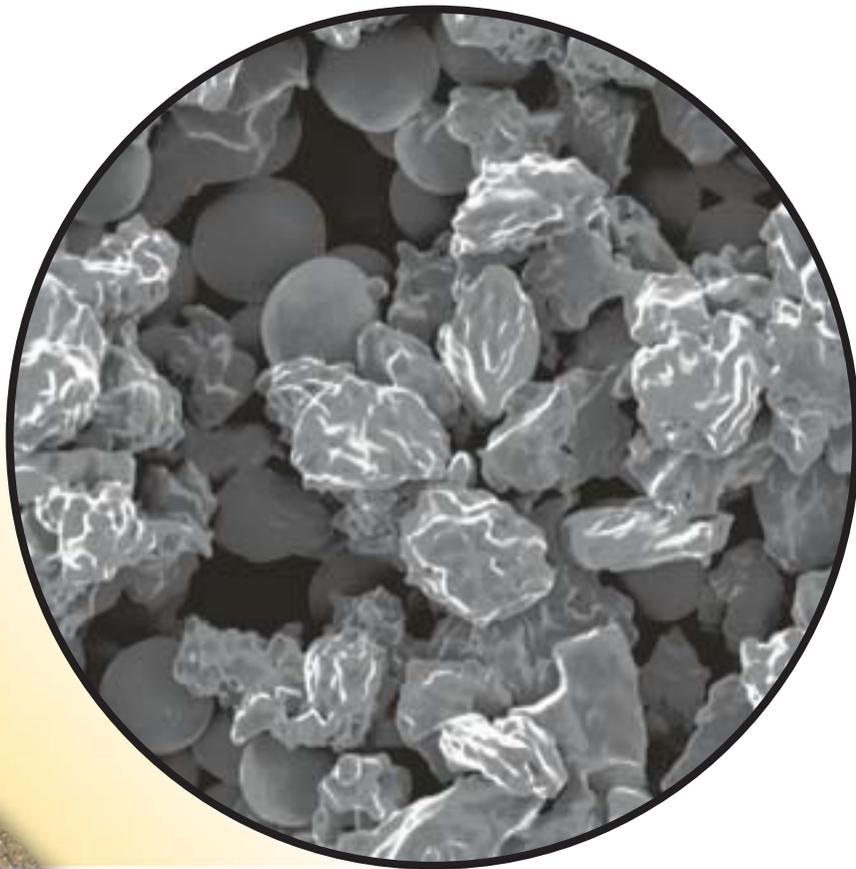
Gription Coating in lab testing has demonstrated a predicted friction coefficient of 1.2, offering a substantial improvement over standard porous coatings and suggesting a 20% improvement over a contemporary tantalum cementless interface.²

Super-Textured Asperity Topography (STAT)

Gription Coating's combined macrotexture and microtexture topography can provide a favorable mechanical loading environment for bone reconstitution and allow for heightened cell adhesion and proliferation.

Engineered Pore Form

Gription Coating is engineered to maintain a 63% porous, 300-micron pore structure that is designed to improve oxygenation and revascularization onto and around the implant compared to standard coatings.



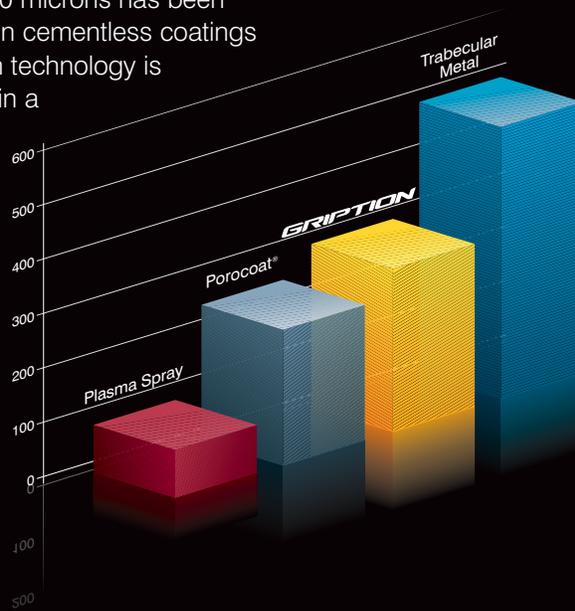
Proven Heritage

- Manufactured of CP Titanium under proven, time-tested Porocoat® processing parameters
- Engineered to maintain a clinically established pore size with enhanced pore volume
- Designed to maintain mechanical integrity under extreme compression, tensile, and torsional forces

Engineered Pore Form

Pore Size

A pore size of 250-300 microns has been clinically established in cementless coatings for decades.¹ Gription technology is engineered to maintain a clinically advantageous pore size of 300 microns to maximize short-term and long-term fixation.



Gription-coated Primary and Revision Shells



Sector Shell
48mm-66mm



Multihole Shell
38mm-72mm



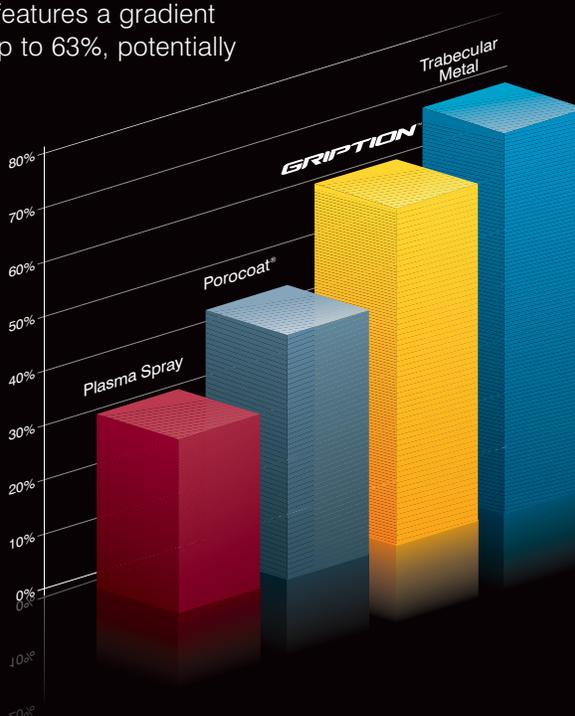
Revision Shell
54mm-80mm



Deep Profile Revision Shell
54mm-72mm

Volume Porosity

Gription technology features a gradient surface porosity of up to 63%, potentially allowing for greater tissue growth and revascularization onto and around the implant.



GRIPTION™

High Stability,
Low Wear Articulations

Marathon®
Cross-Linked
Polyethylene



ULAMET® XL
Large Diameter
Metal-on-Metal

ES³™
Polyethylene
Linings



Bilox® delta
Ceramic Head
on AltrX™
AltraLink™
Polyethylene

Total Hip Prostheses, Self-Centering Hip Prostheses and Hemi-Hip Prostheses

Important

This Essential Product Information sheet does not include all of the information necessary for selection and use of a device. Please see full labeling for all necessary information.

Indications

Total Hip Arthroplasty (THA) is intended to provide increased patient mobility and reduce pain by replacing the damaged hip joint articulation in patients where there is evidence of sufficient sound bone to seat and support the components. THA is indicated for a severely painful and/or disabled joint from osteoarthritis, traumatic arthritis, rheumatoid arthritis or congenital hip dysplasia; avascular necrosis of the femoral head; acute traumatic fracture of the femoral head or neck; failed previous hip surgery; and certain cases of ankylosis. Hemi-hip arthroplasty is indicated in these conditions where there is evidence of a satisfactory natural acetabulum and sufficient femoral bone to seat and support the femoral stem. Hemi-hip arthroplasty is indicated in the following conditions: Acute fracture of the femoral head or neck that cannot be reduced and treated with internal fixation; fracture dislocation of the hip that cannot be appropriately reduced and treated with internal fixation; avascular necrosis of the femoral head; nonunion of femoral neck fractures; certain high subcapital and femoral neck fractures in the elderly; degenerative arthritis involving only the femoral head in which the acetabulum does not require replacement; and pathology involving only the femoral head/neck and/or proximal femur that can be adequately treated by hemi-hip arthroplasty.

Contraindications

THA and hemi-hip arthroplasty are contraindicated in cases of: active local or systemic infection; loss of musculature, neuromuscular compromise or vascular deficiency in the affected limb, rendering the procedure unjustifiable; poor bone quality; Charcot's or Paget's disease; for hemi-hip arthroplasty – pathological conditions of the acetabulum that preclude the use of the natural acetabulum as an appropriate articular surface. Ceramic heads are contraindicated in revision surgery when the femoral stem is not being replaced or for use with any other than a polyethylene or metal-backed polyethylene cup. In the USA, ceramic heads are not approved for use with metal cups.

Warnings and Precautions

Ceramic coated femoral stem prostheses are indicated for uncemented press fit fixation. CAUTION: DO NOT USE BONE CEMENT FOR FIXATION OF A CERAMIC COATED PROSTHESIS.

Components labeled for "Cemented Use Only" are to be implanted only with bone cement. The following conditions tend to adversely affect hip replacement implants: excessive patient weight, high levels of patient activity, likelihood of falls, poor bone stock, metabolic disorders, history of infections, severe deformities leading to impaired fixation or improper positioning, tumors of the supporting bone structures, allergic reactions to materials, tissue reactions, and disabilities of other joints.

Adverse Events

The following are the most frequent adverse events after hip arthroplasty: change in position of the components, loosening of components, fracture of components, dislocation, infection, peripheral neuropathies, tissue reaction.

References

1. Bobyn, et al. The optimum pore size for the fixation of porous surfaced metal implants by the ingrowth of bone. *Clinical Orthopaedics & Related Research*, 150, 1980.
2. Data on file at DePuy

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