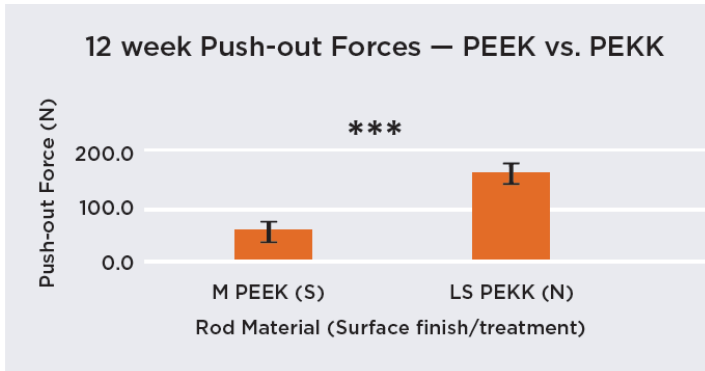


OsteoFab® Platform - Osseointegration



A comparative study of three biomaterials in an ovine bone defect model

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Average push-out force for machined PEEK (smooth) and 3D printed PEKK specimens; average \pm SEM. *** $p < 0.01^8$
 Push-out testing performed on femoral rods. Results support histological findings of bone growth and attachment on OsteoFab® material.

In an ovine model: "PEKK implants demonstrated bone ingrowth, no radiographic interference, no fibrotic tissue membrane formation, significant increase in bony apposition over time, and significantly higher pushout strength compared to standard PEEK. The PEKK implant displayed bone growth characteristics comparable to Ti-coated PEEK with significant improvements in implant integrity and radiographic properties."

Delamination is a recognized issue with Ti-coated devices

Ti-COATED

Residual bone attachment to sample after push out test

Sanderson's stained histology image (100x) indicating bone cell attachment (pink) to titanium layer (black)

PEEK

No residual bone attachment to sample after push out test

Sanderson's stained histology image (100x) indicating fibrous tissue layer between bone cells (pink) and PEEK sample (tan)

OsteoFab®

Residual bone attachment to sample after push out test

Sanderson's stained histology image (100x) indicating bone cells (pink) interdigitating with TETRAfuse sample (tan)

Source: [A comparative study of three biomaterials in an ovine bone defect model. - PubMed - NCBI](#)

Surgalign's *TETRAfuse® and Fortilink® products manufactured by OPM utilizing OsteoFab® PEKK technology. Images property of Surgalign Holdings, Inc.