

IMPROVED STABILITY

Enhanced primary and secondary **stability** due to increased surface friction and further rapid bone apposition may **increase migration resistance**^[2]

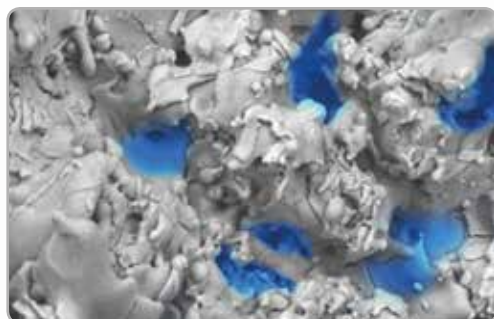
THIN LAYER, FULL VOLUME COATING

Micrometric layer provides **full coating** in the cranial, caudal and interior side of the cages, allowing extensive **3D bone contact**.



COMPLEX MICRO ROUGHNESS

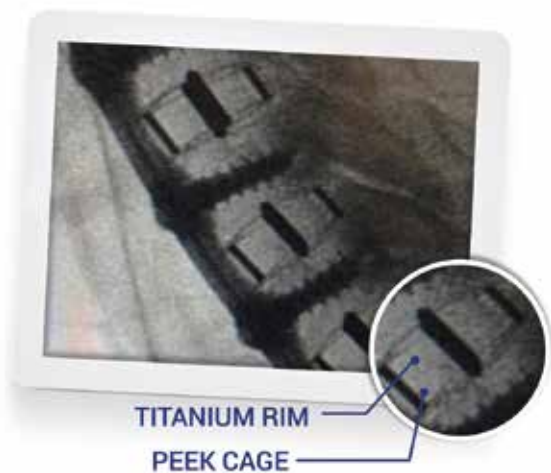
TiPEEK rough micro structured and porous surface **promotes osteoblastic differentiation** and increases **bone formation**^[10,11]



TiPEEK ROUGH AND POROUS SURFACE

OPTIMAL DIAGNOSTIC ASSESSMENT

TiPEEK cages are compatible with the diagnostic bio-imaging techniques and allow a **clear fusion evaluation**.



Clear radiographic evaluation.

While maintaining the radiolucency of PEEK, the superficial Titanium "halo" represents a marker for cage positioning during surgery.



TiPEEK **CT** translucency and **MRI** compatibility facilitate the fusion assesment.

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- [5] Babyn JD et al. Characterization of a new porous tantalum biomaterial for reconstructive orthopaedics. Proceedings of AAOS, Anaheim, CA. 1999
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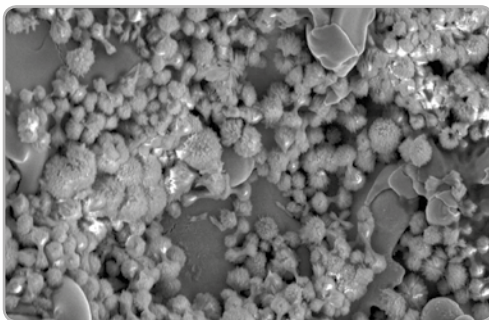


TITANIUM COATED PEEK, ENHANCED BONE CONTACT

Medacta's **TiPEEK** cages represent the next generation plasma sprayed Ti-Coated interbody fusion device designed for **optimal surgical practice**.

BIOACTIVE SURFACE

Unique **bioactivity** boosts an early hydroxyapatite-like layer foundation, facilitating **bone formation** and allowing for direct bone-implant bond^[1,2].

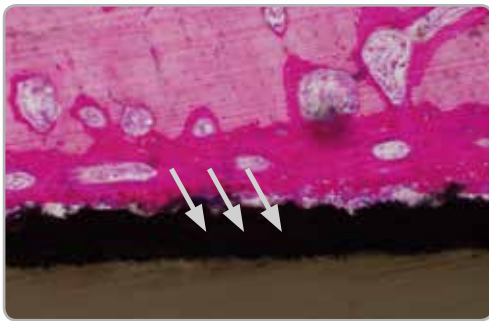


APATITE LAYER ON TIPEEK [1 DAY]

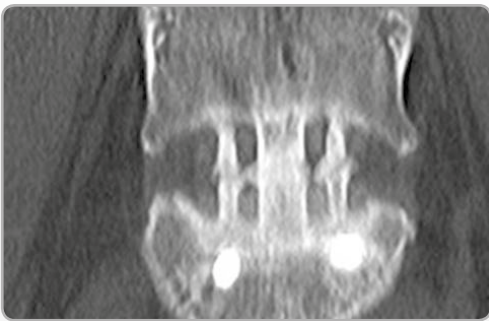
OSTEOCONDUCTIVE TECHNOLOGY

The unique TiPEEK cages may contribute to the bony fusion process and **enhance bone quality** at the implant interface^[2]:

- **Direct bone ongrowth** around the Ti-Coating surface texture^[2]
- **Bone ingrowth** with fusion mass formation throughout the inside of the cage^[3]



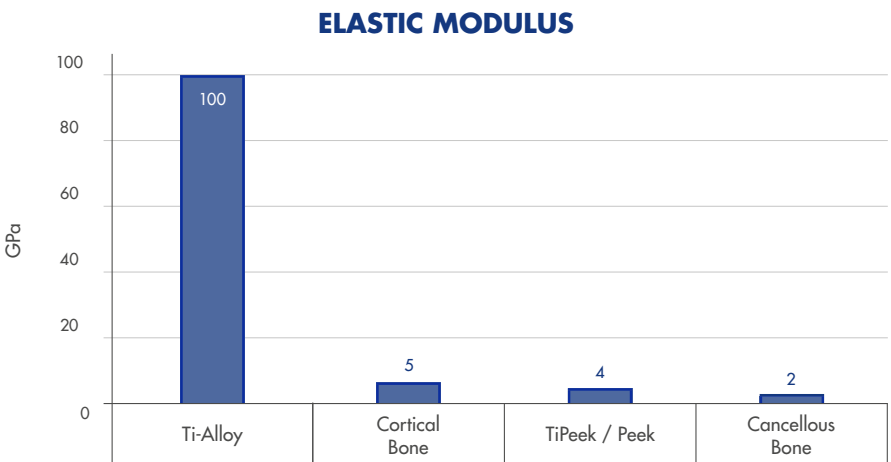
DIRECT BONE APPPOSITION ON TIPEEK SURFACE
[12 WEEKS]



BONE ONGROWTH AND INGROWTH IN A
TIPEEK CAGE [6 MONTHS]

PHYSIOLOGICAL LOAD SHARING

Having a **stiffness similar to the bone**, TIPEEK cages provide a native-like support^[4,5,6] that may help to prevent subsidence^[8]



PEEK HERITAGE

- Reduces the **stress shielding** and facilitates bony fusion^[7]
- Allows **proper load force** transmission at the implant-tissue interface^[7]
- **Supports bone** formation and reduces osteolysis^[7]



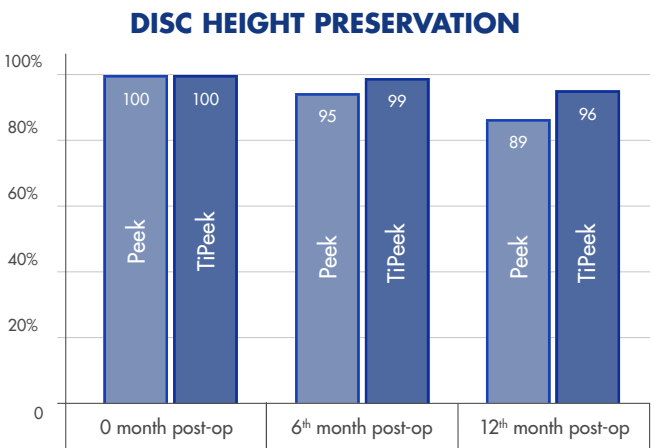
TITANIUM HERITAGE

- **Improved biocompatibility** actively participates in the fusion process^[9]
- **Osteoconductive** surface^[2]
- **Promotes osseointegration** with the surrounding bone^[9]



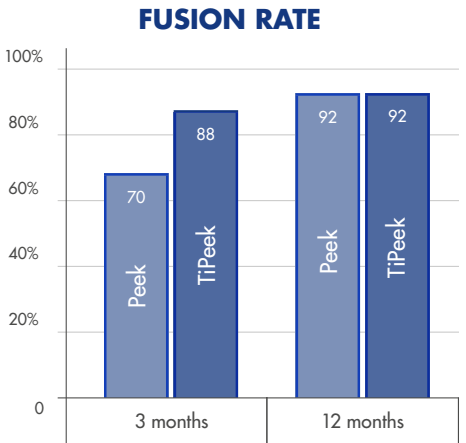
DISC HEIGHT PRESERVATION

Ti-Peek cages provide superior behavior for substantial interbody **height restoration** and **lordosis maintenance**^[1]



Greatly **reduced subsidence** risk for valuable intervertebral height preservation^[1]

HIGH FUSION RATE, LOW SUBSIDENCE



Ti-PEEK

- **High level fusion** rate: ~90% at 3 months post-operative^[1]
- Excellent solution for **accelerated fusion**^[1] & fast **bone remodelling**^[2]

COMPREHENSIVE RANGE OF IMPLANTS

The TiPEEK lumbar **posterior IBFD** and **anterior cages**, as well as **cervical devices**, are available in numerous footprints, heights, and sagittal profiles to accommodate **various patients** needs.

Medacta-C SYSTEM



MedactaLIF ANTERIOR



MedactaLIF SYSTEM

