



PEEK-OPTIMA® HA Enhanced from Invibio® Biomaterial Solutions

Early, enhanced bone apposition

Product Summary

Invibio PEEK-OPTIMA® HA Enhanced provides the accepted high performance characteristics of PEEK-OPTIMA Natural, the leading spinal interbody device material, plus Hydroxyapatite (HA) to enhance bone apposition. This combination is an excellent solution for medical applications where early bone on-growth is required, such as spinal interbody fusion.

Product Information

- PEEK-OPTIMA® HA offers all the clinical advantages of PEEK-OPTIMA:
 - modulus similar to bone
 - reduced stress shielding
 - o reduced subsidence
 - artifact free imaging
 - Plus the added benefit of enhanced bone apposition on all surfaces of the cage.
- PEEK-OPTIMA® HA Enhanced has been shown to improve bone apposition compared to unfilled PEEK-OPTIMA in a pre-clinical ovine model at 4 weeks and 12 weeks. These results do not necessarily correlate to human clinical outcomes.
- PEEK-OPTIMA® HA Enhanced makes hydroxyapatite available at all surfaces versus plasma spray coatings which typically have coverage on the endplates only.
- PEEK-OPTIMA® HA Enhanced has mechanical properties similar to PEEK-OPTIMA Natural and a modulus closer to bone than titanium, thus reducing the potential for stress shielding.
- PEEK-OPTIMA® HA Enhanced does not look different than PEEK-OPTIMA, but the hydroxyapatite particles, although naked to the eye, can be clearly seen on SEM images of the implant surface.

- PEEK-OPTIMA® HA Enhanced is radiolucent on X-rays and is artefact free on CT scans and MRI.
- PEEK-OPTIMA® HA Enhanced is an excellent choice for medical applications where early bone-on growth is required, such as spinal interbody fusion

Clinical Applications

The compounding of PEEK-OPTIMA HA Enhanced polymer with Hydroxyapate (HA) enhances bone apposition, along with delivering the same high performance as PEEK-OPTIMA Natural even after repeated sterilization. It is an excellent choice for medical applications where early bone-on growth is required, such as spinal interbody fusion.



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