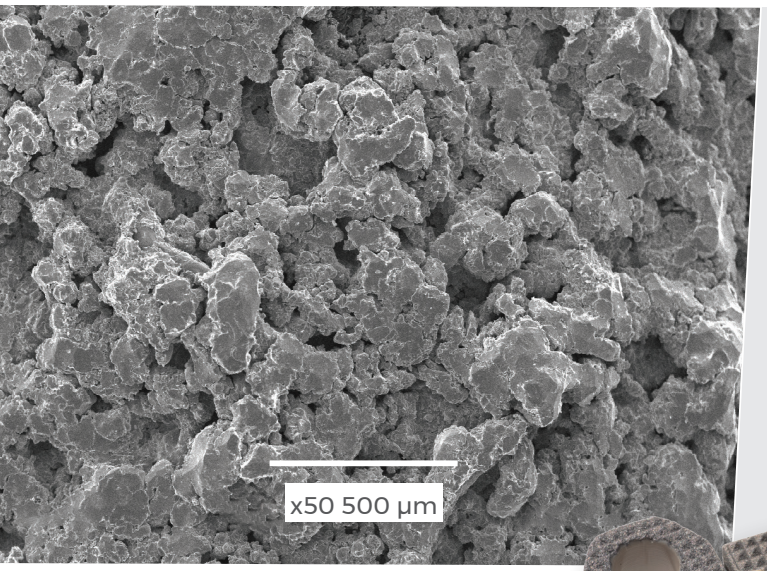
Lincotek Medical

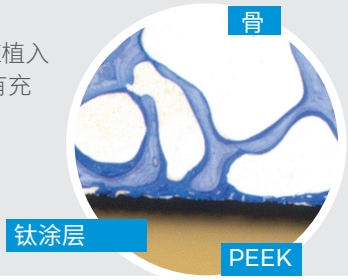
PEEK涂层

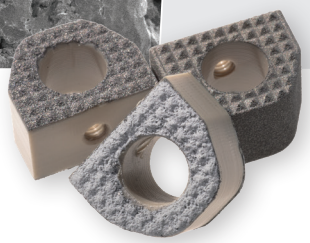
Spondycoat®和 Ti-Growth®：
应用于PEEK产品表面的全新等离子喷涂涂层系列



无涂层PEEK植入物表面与宿主骨的直接接触相当有限

含钛涂层的PEEK植入物表面与宿主骨有充分直接接触





特点与优势

- 可提供钛和羟基磷灰石涂层
- 高强度附着力
- 强化骨整合

应用示例

- 椎体融合器
- 椎体置换
- 人工椎间盘置换
- 固定螺丝

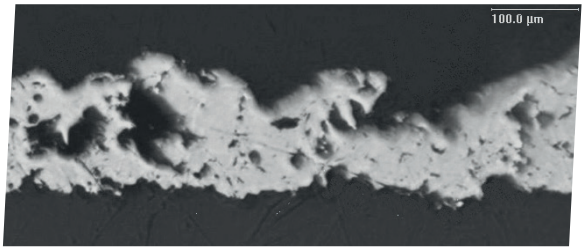
PEEK是一种具有良好生物相容性的惰性生物材料，但**PEEK**材料的惰性及其有限的骨固定作用方面仍存在一定挑战。
通过采用骨传导材料（如羟基磷灰石和钛金属）的等离子喷涂涂层提高**PEEK**表面功能，有帮助含涂层的植入物实现直接骨整合。

PEEK等离子喷涂涂层

SPONDYCOAT®-T 371A

Spondycoat®-T 371A是一种低粗糙度钛涂层（代表值 Ra 4-10 µm），主要用于标识薄层（推荐厚度60-120 µm）。

SPONDYCOAT®-T 107

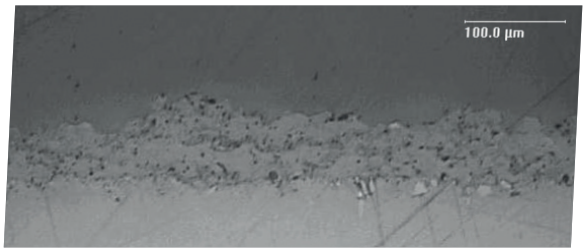


Spondycoat®-T 107是一种高粗糙度钛涂层（代表值Ra 20-40 µm），推荐厚度为125-250 µm。

TI-GROWTH®

Ti-Growth® 是一种高粗糙度多孔钛涂层（代表值Ra 40-80 µm），推荐厚度为300-500 µm。

SPONDYCOAT®-HA



Spondycoat®-HA 是一种低粗糙度羟基磷灰石涂层（代表值Ra 4-8 µm），主要用于标识薄涂层（推荐厚度45-85 µm）。

适用基材

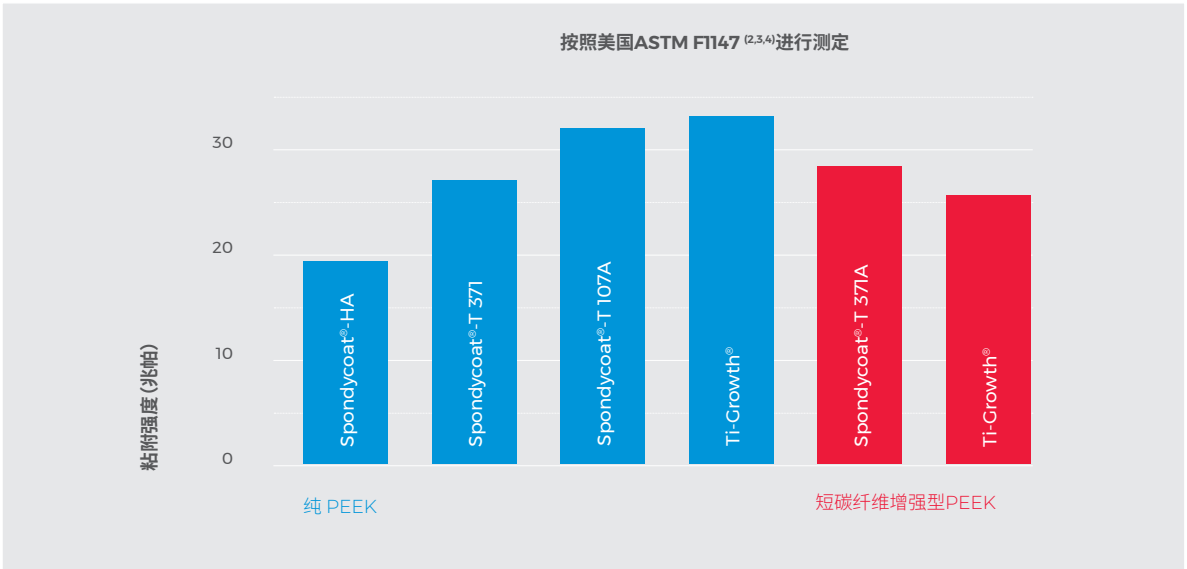
所有这些涂层可应用于以下材质的产品：

/ 纯**PEEK** / 短碳纤维增强型**PEEK** / 硫酸钡过滤**PEEK**

我们可提供更多涂层解决方案，或根据特定要求开发。

所有Spondycoat® 和 Ti-Growth® 涂层均符合ASTM标准和美国FDA指南要求。

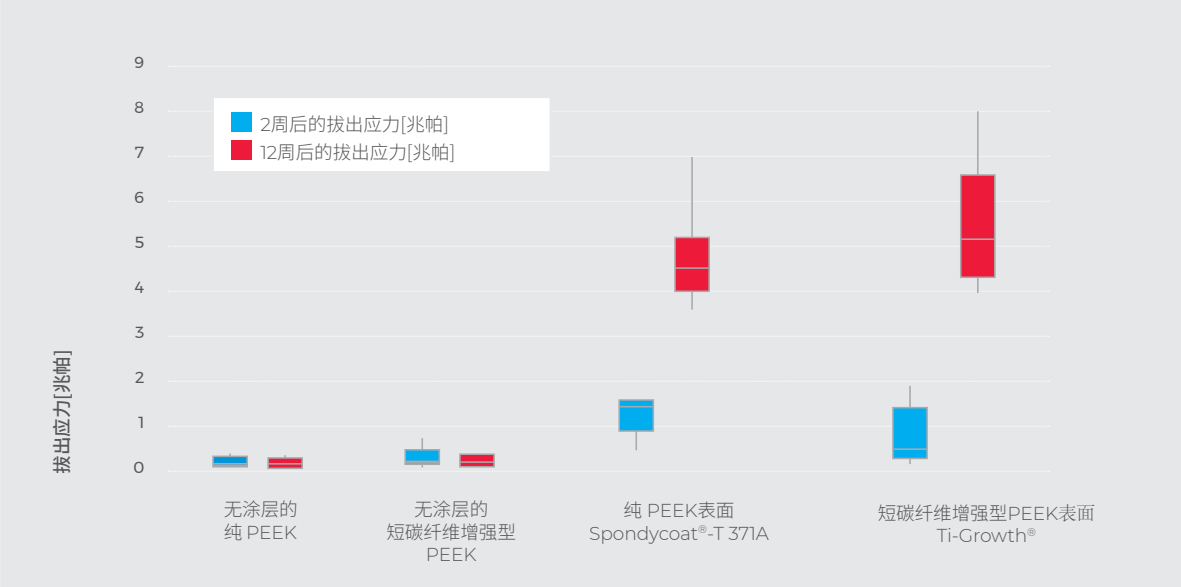
我们已收集了所有关于等离子喷涂工艺对PEEK材料性能影响的完整数据集，可供索取。该数据集可以帮助植入物设计人员选择适合特定应用的合适涂层。



Spondycoat®和Ti-Growth® 涂层的生物特征

Implantation study performed in sheep pelvis model.

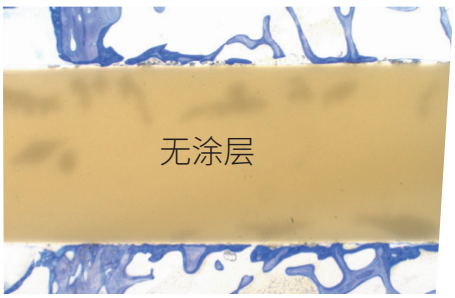
通过拔出测试植入物与宿主骨的固定情况[6,7,8,9]



涂层会改善植入物与宿主骨的直接接触，在植入两周后使植入物与宿主骨达到更强的固定效果。植入骨盆骨十二周后，含涂层的植入物会获得更高的机械固定值。

植入12 周后的组织学评价

涂层植入物显示出比无涂层PEEK具有更高的骨整合度：骨与涂层直接接触，而无涂层PEEK的直接接触非常有限。



含钛涂层的PEEK医疗植入物示例

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Image of coated spinal cages on front cover courtesy of Invibio Ltd. Studies in quoted literature were performed using unfilled and reinforced PEEK-OPTIMA® biomaterials supplied by Invibio Ltd.

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