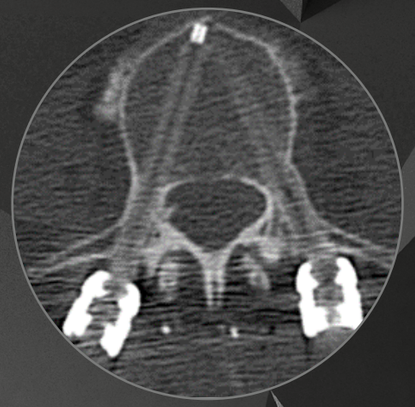
Remove Barriers for True Insights

When you use titanium

When you use BlackArmor®



BLACK® ARMOR

Engineered and manufactured by icotec in Switzerland

icotec

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0170EN.2019-08

BLACK® ARMOR

High-strength, nonmetallic biomaterial for load-bearing implant applications

Technical Information

BlackArmor® Material from the leader in medical Carbon/PEEK composites

BlackArmor® Composite Material Technology

- Over 15 years material experience from more than 20,000 clinical applications in spine care
- High-performance composite material through utilization of endless carbon fibers in a PEEK matrix
- Unique, interwoven 3D fiber architecture throughout the implant, for unmatched strength in complex designs such as pedicle screws, VBR systems and anatomical bone plates
- Nonmetallic nature of biomaterial minimizes risk of patient metal allergy; no metal ion release
- Radiolucent in all diagnostic imaging modes (X-ray, CT, MRI) and will therefore not create imaging artifacts

BlackArmor® Material

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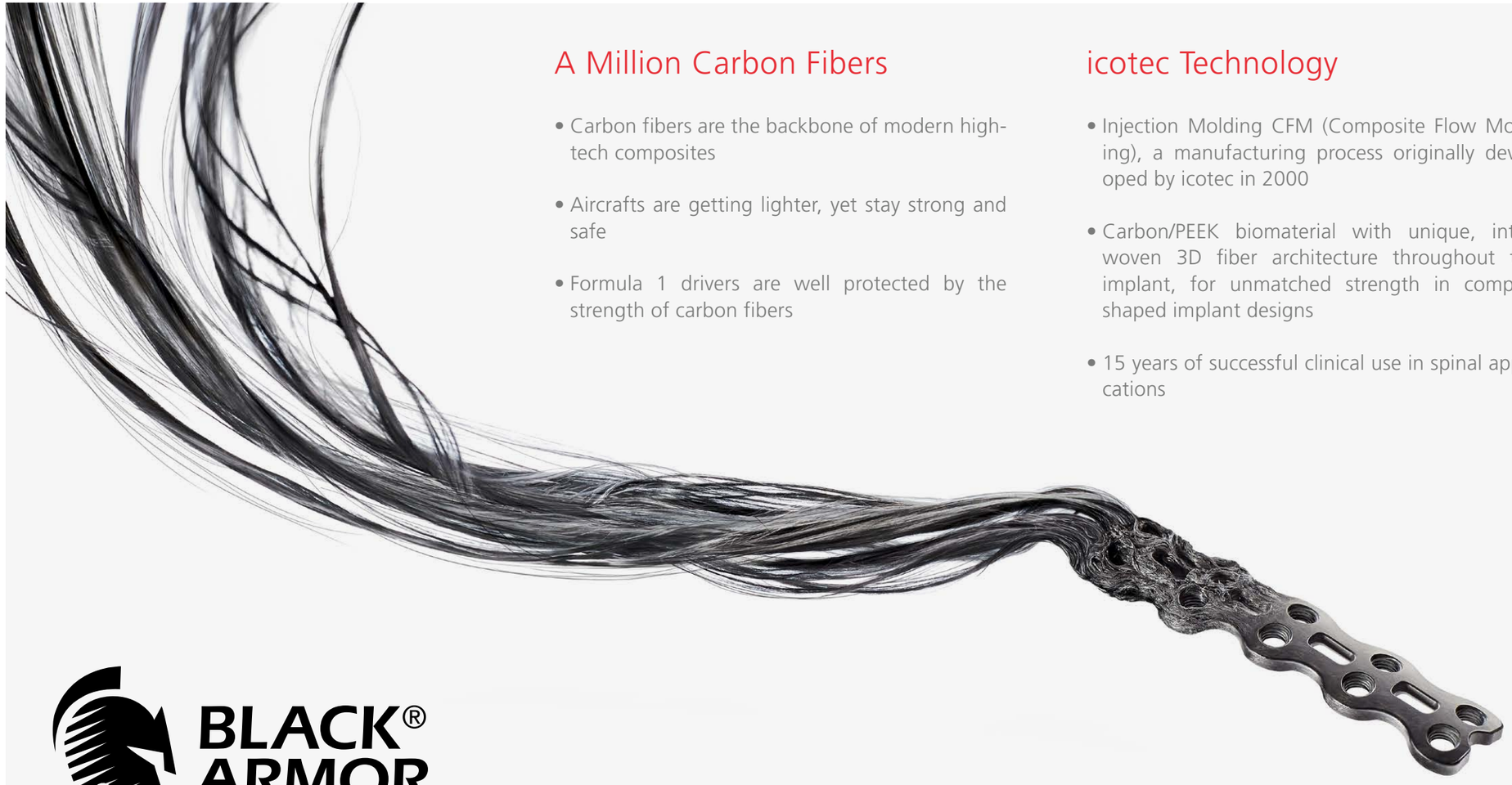

A Million Carbon Fibers

- Carbon fibers are the backbone of modern high-tech composites
- Aircrafts are getting lighter, yet stay strong and safe
- Formula 1 drivers are well protected by the strength of carbon fibers

icotec Technology

- Injection Molding CFM (Composite Flow Molding), a manufacturing process originally developed by icotec in 2000
- Carbon/PEEK biomaterial with unique, interwoven 3D fiber architecture throughout the implant, for unmatched strength in complex shaped implant designs
- 15 years of successful clinical use in spinal applications

Musculoskeletal Applications

- icotec's BlackArmor® composite material has been implanted in more than 20,000 cases in spine care
- Secure stabilization of the musculoskeletal system in load-bearing applications and an alternative to metal
- BlackArmor®, a radiolucent and nonmetallic biomaterial, will not create metal-like artifacts and ensures clear visualization and assessment of the anatomic structures surrounding the implant in all clinical imaging techniques (X-ray, CT, MRI)
- BlackArmor® biomaterial facilitates radiation therapy by enabling accurate delineation of anatomic structures during planning, correct dose calculation and unimpeded radiation application into the target tissue