

# Algisorb™

100% organic bone grafting material

**B**one grafting materials should always attempt to imitate the properties of autogenous bone. Therefore, the best choice is a natural product that is both biocompatible and immunocompatible as well as osteoconductive.

Algisorb™, a 100% organic bone grafting material, is the first and only natural biological product on the market based on plant origin. The algae-derived product is very similar to human bone. All algae-derived (phycogenic) materials demonstrate a high specific porosity up to 1.1 cm<sup>3</sup>/g. Their unique interconnecting porous structure, a “honeycomb-like” channel system, and their specific chemistry is decisive for the high in vivo bioactivity of the phycogenic materials that results in complete bone remodeling and resorption. Histological studies show that the apatite material undergoes a mainly cellular successive bone resorption and simultaneous remodeling (creeping substitution) where the product is completely degraded and replaced by newly formed bone. A few months after augmentation, the apatite granules are incorporated into a young, newly formed vascularized bony tissue.

**Letters P, A, R symbolize the three main advantages of Algisorb**

**P** for Porosity: Algisorb has a honeycomb-like interconnecting porosity that provides for efficient osteoconduction and fast, new bone formation.

**A** for Absorption: The high absorptive pore structure of Algisorb guarantees moldability, ease of handling, and stability within the site.

**R** for Resorption: Histological studies of Algisorb (Ewers, et al., 1987; Ewers and Schumann 1994; Schopper, et al., 2003) report almost total resorption of the material with simultaneous substitution by new bone within 2 to 3 years. This process is commonly known as creeping substitution.

Due to the unique porosity, the high absorption capacity, the presence of an immense amount of cell chambers, and the positive resorption kinetic (which allows for future biomechanical loading of the bone), Algisorb is a true bone-conducting and regenerative material.

## Clinical Case

Socket grafting, socket fill in the maxilla with phycogenic algae-derived hydroxyapatite, and dental implants

Patient: 61-year-old female



Figure 1: Panorex after tooth extraction with local infection



Figure 2: Intraoperative situation 2 weeks after tooth extraction and after socket grafting with phycogenic apatite



Figure 3: Covering with collagen membrane



Figure 4: Panorex 5 months later shows the complete filling of the alveolar defect with newly formed bone



Figure 5: Primary wound healing with a perfect mucosa level, which means perfect ridge preservation, enabling insertion of a dental implant, which was inserted 5 months later



Figure 6: Dental X-ray 1 year after socket grafting and after implant surgery

Algisorb is sold in .5ml, 1ml, and 2ml vials and is available exclusively in the United States through Osseous Technologies of America. For further information, as well as a comprehensive listing of the Osseous

Technologies of America's (OTA), product line, please visit [www.osseoustech.com](http://www.osseoustech.com), or call 866-901-5050. **IP**

*This information was provided by Osseous Technologies of America.*