



Frequently Asked Questions

What is 4MATRIX?

4MATRIX is a Bone Graft Cement composed of pure biphasic calcium sulfate & hydroxyapatite, intended to fill or augment a large diversity of osseous defects.

What are the indications for using 4MATRIX?

4MATRIX can be used in a wide diversity of osseous defects, including medium and large size defects such as dehiscence, fenestration cases, lateral augmentations (horizontal crest widening), lateral bone window closure, periodontal bone defects, filling of bony defects pre-implant placement, filling a cavity post cyst removal, ridge augmentations, etc.

What is the resorption rate for 4MATRIX?

4MATRIX is a composite graft made of Biphasic Calcium Sulfate and HA granules (granule size 90-1000 μ m) in a specific particle size distribution, in a ratio of 2:1. This combination takes advantage of each part of its components. Calcium sulfate acts a short-range space maintainer scaffold. It completely degrades in strict relation to the bone formation rate (4-10 weeks), while the HA acts as a longer term space maintainer. The volume of HA within the graft is a relatively small proportion (33.3%), and is intended only to slow down the overall resorption of the graft. The bioactivity and the graft transformation into vital bone are due to the biphasic calcium sulfate, which is 66.6% of the graft.

What are the porosity properties of the material?

4MATRIX overall structure has micro porous (0-10 μ m) and macro porous (50-500 μ m). The initial surface porosity percentage is about 40%, however since Calcium Sulfate completely degrades over time, it creates more space for the new bone to be formed.

Can 4MATRIX be used for a sinus lift?

The recommendation is to fill 2/3 of the sinus cavity with your preferred granular augmentation material, and the final 1/3 with 4MATRIX. It will enrich the graft with calcium ions, and will also close the sinus window with no need for additional membrane placement.

How long does it take for the material to harden?

The setting time is approximately 3-5 minutes.

What is the working time with the material?

The working time with the material starts when the powder is mixed with saline. At this time, the material is moldable and pliable for about 3 minutes (Working time). Thus, it is important to have the lesion fully prepared prior to activating the material. As soon as the material is placed in the defect, it should be compressed with a dry gauze pad for 2-5 seconds, and the material will harden in-situ immediately. At this point, a wet gauze pad is placed above the graft passively, with no pressure, the patient can just close his mouth above the gauze for 2 minutes (to complete the setting time). Passing the working time will influence the pliability and moldability of the material. The material can still be used, however, not with its cementing properties.

Is it necessary to use a membrane?

It is recommended to use a membrane.