Augma™
BIOMATERIALS

Better handling, Better results

3D Bond™ A graft binder cement

3D Bond™ is a unique graft binder cement made of pure biphasic calcium sulfate and represents a breakthrough in the field of maxillofacial augmentation. **3D Bond™** is the only cement of its type that sets within a short time after being laid, even in the presence of blood and saliva – characteristic of the oral cavity. The product can also be used in combination with a wide range of bone substitutes which have longer absorption times, thus allowing clinicians to perform more complex augmentation procedures and achieve get better results.

3D Bond™ is biocompatible, and is completely absorbed and replaced within 4-10 weeks; the exact amount of time required for bone regeneration. The result is a complete conversion from the graft material to the patient's own bone within the shortest, most optimal time period.

The development of **3D Bond™** was motivated by a strong clinical need to significantly simplify and streamline the variety of complex augmentation processes. The aim being to reduce both the work and recovery times, without compromising the quality of bone at the lesion site. These advantages are offered at an affordable price, allowing for treatment to be given to the maximum number of patients.

The advantages of 3D Bond™

- **Self-setting cement**, with the ability to attach to and set at the work site, and to bond to granular bone substitutes, preventing them from moving
- **Biocompatible**
- **Completely absorbed and replaced** (absorption time matches the bone regeneration time of 4-10 weeks)
- **Can be mixed with any existing bone graft substitute**
- **Convenient to work with and shape -** significantly reduces treatment time and increases efficiency for the clinician
- **Easy and convenient to use** – thanks to the unique syringe that provides an innovative workflow, making the clinician's work easier

Indications for using 3D Bond™

1. **Filling in osseous cavities**

   Limited to lesions whose width does not exceed 10 mm and are surrounded by at least 3 bone support walls.

2. **In combination with other granular augmentation materials**

   As a composite graft with other granular augmentation materials, expanding the indications for a wider range of defects.

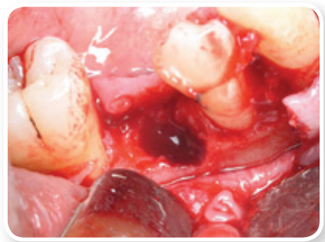
3. **As a membrane**

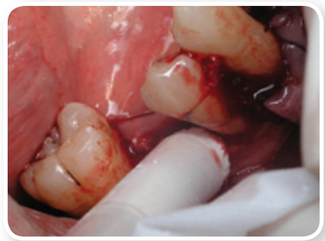
   Over existing augmentation materials.

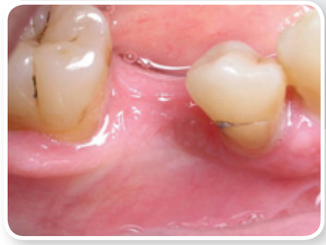
3D Bond™ is FDA cleared and CE approved and is packed and marketed in specially designed syringes of 1 cc and 0.5 cc volume.

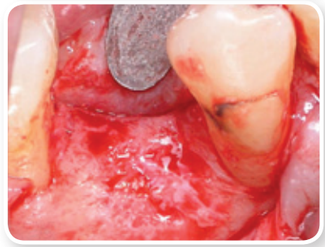
Clinical case 1:

An osseous lesion of not more than 10 mm width surrounded by 3 osseous support walls. This case falls under the range of indications for use of **3D Bond™** on its own, without the need to combine it with other augmentation materials.









Socket Preservation

Three months after the augmentation, both the quality of the soft tissue and that of the resulting bone (that is the patient's *own* bone) is visible, leaving no residues or traces of the implanted material.

Bond Apatite® A bone graft cement

Another novel product of **Augma Biomaterials Ltd.** is a combination of **3D Bond™** with a formula of hydroxyapatite granules. This is a cement-based, osteoconductive composite, synthetic bone substitute that is used for bone reconstruction in a range of dental applications and is intended for filling, augmenting and reconstructing a broad range of defects in the maxillofacial bones.

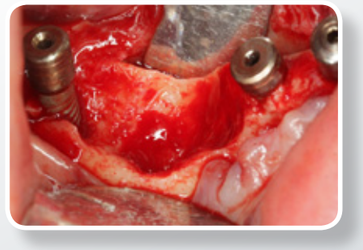
Bond Apatite® is composed of 2 matrices which have different absorption coefficients and characteristics.

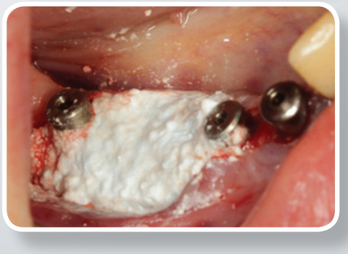
The first matrix is biphasic calcium sulfate (**3D Bond™**) which is absorbed and replaced completely.

The second matrix is a formula of hydroxyapatite granules which serves as longer range space maintainer.

The product guarantees reduced treatment time and convenient manipulation for the clinician, thanks to the product's unique nature and the specially designed syringe.

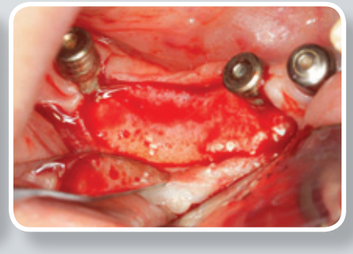
Bond Apatite® is FDA cleared and CE approved. As of 2015, Bond Apatite® is delivered in a dual-chamber, prefilled syringe, containing the granulated powder and physiological saline. Mixing the powder component with the liquid in the driver results in a viscous composite that is suitable for injection into the graft site. Compared to the previous version of the driver, in which additional accessories had to be used to inject the saline into the driver's head, this new development of the "all-in-one" Bond Apatite® driver ensures easy and more convenient handling by the clinician.

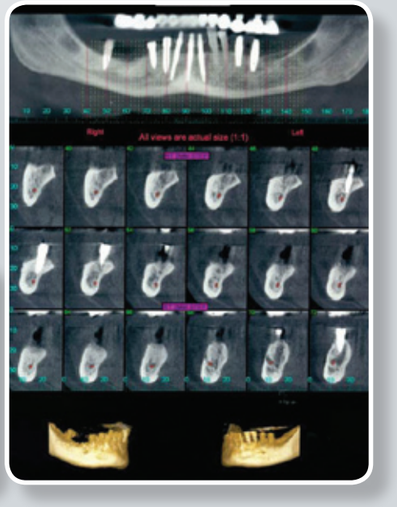


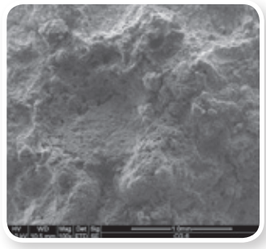


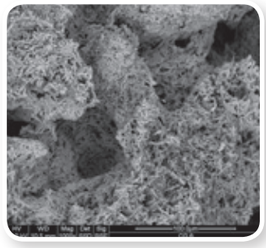
Clinical case 2:

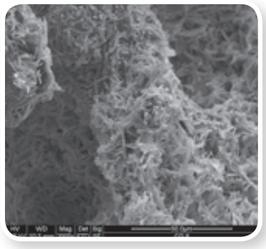
Augmentation using **Bond Apatite®** for large bone destruction after removal of hopeless tooth.











Buccal Dehiscence

Bond Apatite® Internal porosity structure divided into macro and micro porous in different magnifications (SEM images).

Augma Biomaterials Ltd. is a dynamic, innovative Israeli company, that develops bone substitutes and accessories for bone augmentation in maxillofacial surgery.

The activity of the company is based on two main aspects:

- **Development of novel augmentation products** that are based on many years of personal experience and which consider the challenges that dental clinicians face
- **Service and broad support for clinicians**, to ensure better, faster and readily achievable results

The idea of forming the company was born from the need of the developer, Dr. Amos Yahav, D.M.D, to find a bone graft substitute that could serve clinicians in a wider spectrum of indications, with the aim to find the ultimate such substitute.

Augma Biomaterials Ltd. presents its flagship products in the bone graft substitute field for the dental market:

Augma™ BIOMATERIALS

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Augma Biomaterials Ltd. aims to continue to develop custom products and provide a convenient platform for dentists through personal service and support.

We invite you to learn about our products and receive training.

For further details and information about training done at our offices:

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