

**SYNTHETIC BONE GRAFT ADBONE®TCP**

**Material:**

Adbone®TCP is a porous synthetic ceramic, composed by  $\beta$ -Tricalcium phosphate (beta-TCP).

**Purpose:**

The device is designed for the filling of bone voids or defects. Adbone®TCP's macroporosity allows an excellent osteointegration of the graft and the fact that the pores are interconnected will allow an easy and total vascularization of the graft. Adbone®TCP has an excellent bioactivity, and can be totally reabsorbed. Adbone®TCP is substituted by new vital bone from the patient during the regeneration process.

**Description:**

Adbone®TCP can be manufactured in different shapes (granules, blocks, cylinders and wedges).

Adbone®TCP is intended to be used as a bone void filler or augmentation material for bone defects that are not intrinsic to the stability of bony structure.

When Adbone®TCP is placed in the implantation site, cellular adhesion starts occurring on the surface of the pore, and continues to proliferate through the interconnected pores producing a cellular matrix until bone mineralization occurs.

**Geometries:**

- Granules are provided by range sizes:
  - 0,1 – 0,5 mm
  - 0,5 – 1 mm
  - 1 – 2 mm
- Blocks with the dimensions:
  - 8 x 8 x 20 mm
  - 5 x 10 x 15 mm
- Cylinders with the dimensions:
  - 8 x 20 mm

**Characteristics:**

- **Security**

100% Synthetic. No Human nor animal origin.

- **Osteoconductive**

Interconnected porosity with high mechanical resistance.

- **Reabsorption**

Adbone®TCP is replaced by new vital bone from the patient within 1 – 6 months. In some cases, the reabsorption time may take longer, taking into account the size of the bone void, the quantity of product use and patient's health. There are no significant changes between the new bone density and the pre-existing bone.

- **Radiopaque**

The Physician can easily verify the osteointegration process with a simple X-ray.

- **Easy handling**

The unique 3D structure manufacture by our patented process allow us to create a bone graft highly hydrophilic. The bone graft particles will agglomerate in contact with blood, PRP and saline solution, facilitating the application of the product in the implantation site.

- **Geometries**

Large spectrum of shapes and quantities.

Essential factors that increase the osteointegration:

- Geometries (blocks and cylinders) porosity: 80%
- Granules porosity: 90%
- Pore size: 300 to 500 microns
- Interconnected porosity
- The material is osteoestimulative, this means that the material provides an environment where cells can grow and develop
- 100% reabsorbed – replace by new bone tissue