

# CERASORB® FOAM

$\beta$ -tricalcium phosphate-foam for implantation

**Fits perfectly - Every time!**

Individual bone defects can now easily  
be filled with the mouldable ceramic-  
collagen-composit



**New from**

**curasan**  
Regenerative Medicine

## Comfortable to use

- Granules embedded in collagen
- Foam mouldable according to the shape of the defect

**CERASORB Foam** is a highly porous composite made of porcine collagen and pure phase  $\beta$ -TCP granules (CERASORB granules) with different size and density. The collagen phase embeds the granules and fixes them within its fibrous structure. For use, the material should be moistened with blood from the defect.



Once moistened, CERASORB Foam can be moulded according to the shape of the defect.



By embedding the granules into the collagen matrix, the material can be comfortably positioned.

CERASORB granules have been successful in clinical use for over 15 years and are documented in more than 150 publications. 10-year comparative study shows, that implantation in extraction alveoli augmented with CERASORB granules has proved to be equal to implantation in natural bone.<sup>1</sup>

**CERASORB Foam** is very clearly visible on the radiograph.

## CERASORB-collagen-matrix: Synergy effects in bone regeneration

- Collagen supports the bone regeneration in the early phase
- High share of CERASORB granules ensures volume stability

Due to the high binding capacity of collagen for physiological fluids, there is a large contact area to the surrounding vital bone by this the bone-forming cells can surround the material.

Thereby, the absorption of nutrients and proteins is also facilitated.<sup>2</sup> Bone regeneration is already supported effectively in the early phase.

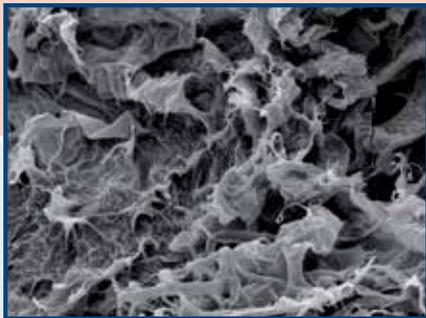
The special CERASORB-collagen-matrix enables a granular fraction of 85 % by weight and thereby a high volume stability after reduction of the faster resorbing collagen. Due to its high porosity CERASORB granules provide the newly formed bone a stable conductive structure.

**“In summary, combining both collagen and  $\beta$ -TCP in Cerasorb Ortho Foam provides an advantage over using the single components in bone tissue repair.”<sup>2</sup>**

## Complete bone regeneration

- Complete resorption of CERASORB granules and collagen
- reconstitution of healthy bone

CERASORB granules and collagen will be completely eliminated and replaced by autologous bone. The use of pure phase  $\beta$ -tricalcium phosphate with regular interconnective porosity and primary particle size ensures a degradation of the biomaterial with simultaneous formation of new bone.

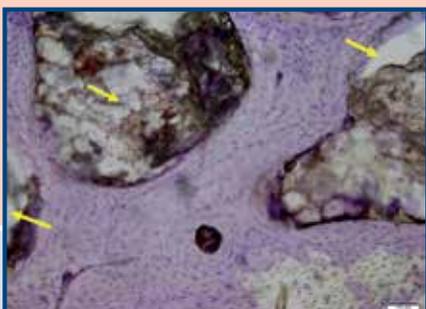
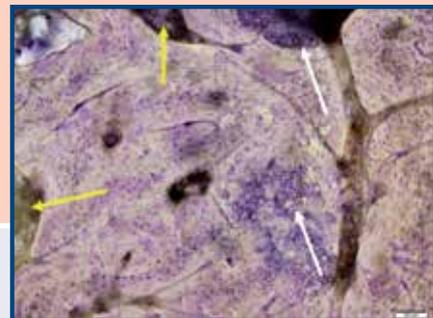


1000-times magnification of CERASORB Foam

In an animal study at the distal femoral condyle in rabbits was shown that defects with critical size can be regenerated with CERASORB Foam.<sup>2</sup>

In another study CERASORB Foam has also been successfully used in a sheep scapula defect.<sup>3</sup>

After 3 months a good bony regeneration of the defects is available with incipient remodeling of the original bone structure and formation of marrow spaces (yellow arrows). It shows that in the newly formed bone the tricalcium phosphate residues - in the process of resorption - are penetrated by bone tissue (white arrows) with excellent bone contact, e.g. bone binding is present.<sup>3</sup>



After 12 months, within the defect, the original bone structure with spongiosa and marrow spaces (yellow arrows) is regenerated in the centre and in the compacta of the boundary area and the implantation material is almost completely resorbed.<sup>3</sup>

In all studies CERASORB Foam shows a very good biocompatibility. Parallel to the formation of new bone, both the  $\beta$ -TCP particles and the collagen were completely resorbed.<sup>3</sup>

# CERASORB® FOAM

$\beta$ -tricalcium phosphate-foam for implantation

Resorbable ceramic-collagen-composite material for filling respectively reconstruction of single and multiwall bone defects

Mouldable Foam is available in the following sizes:

CERASORB® Mouldable Foam	Dimension LxWxH [mm]	Volume [cc]	Packaging size	Article-No. curasan
	25 x 12 x 4	1,2	1	9000060124
	25 x 25 x 4	2,5	1	9000060254
	25 x 50 x 4	5	1	9000060504

**Note:**

The production of the collagen complex is carried out in a controlled, standardized process in Germany.

Easy storage of **CERASORB Foam** at room temperature.

Made in Germany



Manufacturer:

**curasan**

Regenerative Medicine

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[www.curasan.com](http://www.curasan.com)

1. Harel et al., 2013. Long-term results of implants immediately placed into extraction sockets grafted with  $\beta$ -Tricalcium Phosphate: A retrospective study. J Oral Maxillofac Surg 2013; 71(2): e63-e68.
2. Zheng et al., 2013. Effect of a  $\beta$ -TCP collagen composite bone substitute on healing of drilled bone voids in the distal femoral condyle of rabbits. J Biomed Mater Res Part B 2014; 102 B: 376-383
3. Knabe et al. (Publication in preparation)