

RESORBA® NATURALLY SUPERIOR FOR HEMOSTASIS



RESORBA® CELL

ABSORBABLE OXIDIZED CELLULOSE-HEMOSTAT

For surgical and minimally invasive procedures to support hemostasis in capillary, venous, and minor diffuse arterial bleeding



REPAIR AND REGENERATE

RESORBA is a registered trademark and company of Advanced Medical Solutions Ltd.

RESORBA® CELL



100% NATURAL FINEST COTTON

FULLY RESORBABLE

EFFECTIVE HEMOSTASIS

BIOCOMPATIBLE BIODEGRADABLE BACTERICIDAL BACTERIOSTATIC WIDE PORTFOLIO AND USE RANGE STERILIZED WITH IRRADIATION EASY HANDLING AND POSITIONING PACKAGING WITH SUPERIOR PROTECTION

CE MARK

RESORBA® CELL is a biodegradable, bioresorbable and biocompatible¹ oxidized cellulose based hemostat produced by selective oxidation of extra-long staple cotton of the finest quality.

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RESORBA® CELL is designed to control internal capillary, venous and minor arteriolar bleeding during a wide range of surgical procedures, including minimally invasive procedures, in which conventional hemostatic measures such as sutures or ligatures are ineffective or unfeasible².

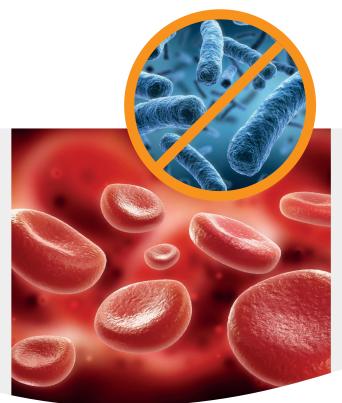
RESORBA® CELL is perfectly accepted by the organism and usually absorbed within 14 days^{3, 4} with practically no tissue reaction, depending on the quantity of product used, the level of blood saturation and the character of tissue. Hemostasis is achieved approximately within 1.5 minutes³.

RESORBA® CELL products show clear antimicrobial effects on a large spectrum of pathogens⁵ (including antibiotic resistant bacteria MRSA, PRSP, VRE, MRSE) and thus help with the tissue regeneration.

RESORBA® CELL proven antimicrobial properties

The bactericidal and bacteriostatic properties are another positive effect that the use of RESORBA® CELL brings to topical hemostasis.

The antimicrobial effect of RESORBA® CELL products on a large spectrum of pathogens is caused by the formation of low pH environment around the wound. The lower pH levels inhibit the growth and multiplication of Gram-negative and Gram-positive bacteria, including both aerobic and anaerobic strains. This efficiency has been confirmed against 36 strains, including antibiotic-resistant bacteria (MRSA, PRSP, VRE, MRSE)⁵.



THE BENEFITS OF RESORBA® CELL...

The most widely used biodegradable hemostatic agent is oxidized regenerated cellulose (ORC). RESORBA® CELL as non-regenerated oxidized cellulose (ONRC) has very similar characteristics and practically the same indication but may vary in some parameters important for its clinical use.

PREMIUM RAW MATERIAL

RESORBA® CELL is produced from pure extra-long staple (ELS) cotton of the highest quality which is only mechanically pre-treated and bleached, while ORC is made of viscose obtained by chemical modification of cellulose.

EASIER REPOSITIONING WITH NO MEMORY EFFECT

Excellent shape stability and slower gelatination of ONRC allows the hemostatic material to be further manipulated and relocated even after placement in a bleeding site. This significantly simplifies material handling during surgical procedures.⁶

EQUIVALENT BACTERICIDAL EFFECT

Despite a slight difference in the acidity of ORC and ONRC, no difference in bactericidal effect was observed.⁷

SUPERIOR HEMOSTASIS

As it has been proven in comparative in-vivo models, ONRC provides superior hemostasis thanks to its frayed fibres which create a greater surface area.⁷

SUPERIOR BIORESORBABILITY/ BIODEGRADABILITY

The in-vitro bioresorbability simulation tests demonstrated better disintegration of ONRC against ORC which created a compact clot of material. This could in-vivo cause a foreign-body granuloma imitating different pathological conditions which might complicate the post-surgical imaging.⁶

RESORBA® CELL EASY-TO-HANDLE PACKAGING WITH SUPERIOR PROTECTION

- compliance with the highest standards for medical device packaging
- easy handling and opening (a peel-effect on both primary and secondary pouches)
- superior protection over a whole shelf life period and outstanding resistance to microbial penetration (even the primary pouch is sealed)
- minimum risk of package failure
- practical suture box consisting of sealed primary and secondary pouches, IFU and triple-stickers for better product traceability
- all the relevant information for users clearly provided



RESORBA® CELL standard

Description

• knitted regular density textile form

Handling

- can be easily cut without fraying
- easy (re) positioning at the bleeding site
- can be rolled
- does not stick to instruments
- no memory effect

Indication

 control of capillary, minor venous and minor arteriolar bleeding

RESORBA® CELL forte

Description

- knitted high density textile form
- higher thickness
- improved endurance
- better efficiency

Handling

- can be easily cut without fraying
- easy (re) positioning at the bleeding site
- can be rolled
- does not stick to instruments
- no memory effect

Indication

• control of higher volume capillary, venous and arteriolar bleeding

RESORBA® CELL fibrillar

Description

- non-woven cotton wool form
- multi-layered structure
- reduced weight
- extreme absorbency
- improved adherence
- extreme flexibility

Handling

- can be simply shaped into a ball or a roll
- any layer can be easily separated
- for different intensities of bleeding • easy (re) positioning at the bleeding site
- does not stick to instruments
- no memory effect

Indication

- control of bleeding on large surfaces
- for topical applications to irregularly shaped bleeding sites or difficult to access areas

RESORBA® CELL wide portfolio range

BASIC PRODUCT LINE



RESORBA® CELL standard

| REF | Content | Name | Size |
|--------|---------|------------------------|-------------|
| RC0501 | 15 рс. | RESORBA® CELL standard | 5 x 1.25 cm |
| RC0507 | 15 pc. | RESORBA® CELL standard | 5 x 7 cm |
| RC0535 | 10 pc. | RESORBA® CELL standard | 5 x 35 cm |
| RC1020 | 10 рс. | RESORBA® CELL standard | 10 x 20 cm |



RESORBA® CELL forte

| REF | Content | Name | Size | |
|---------|---------|---------------------|--------------|--|
| RCH0202 | 15 рс. | RESORBA® CELL forte | 2.5 x 2.5 cm | |
| RCH0507 | 10 рс. | RESORBA® CELL forte | 5 x 7.5 cm | |
| RCH0710 | 10 рс. | RESORBA® CELL forte | 7 x 10 cm | |
| RCH1420 | 10 рс. | RESORBA® CELL forte | 14 x 20 cm | |

ADVANCED PRODUCT LINE



RESORBA® CELL fibrillar

| REF | Content | Name | Size |
|---------|---------|-------------------------------------|------------|
| RCF0205 | 10 рс. | RESORBA [®] CELL fibrillar | 2.5 x 5 cm |
| RCF0510 | 10 рс. | RESORBA® CELL fibrilar | 5 x 10 cm |
| RCF1010 | 10 рс. | RESORBA® CELL fibrillar | 10 x 10 cm |



RESORBA® CELL S

| REF | Content | Name | Size |
|---------|---------|-----------------------------|------------|
| RCS0205 | 10 рс. | RESORBA [®] CELL S | 2.5 x 5 cm |
| RCS0505 | 10 рс. | RESORBA [®] CELL S | 5 x 5 cm |
| RCS0510 | 10 рс. | RESORBA [®] CELL S | 5 x 10 cm |
| RCS1010 | 10 pc. | RESORBA [®] CELL S | 10 x 10 cm |

RESORBA® CELL S in the sizes $2.5 \times 5 \text{ cm}$ and $5 \times 5 \text{ cm}$ is ideal for laparoscopy.

RESORBA® CELL S

Description

- strengthened non-woven cotton wool form
- higher absorbency against standard form
- good handling

Handling

- does not stick to instruments
- easy (re) positioning at the bleeding site
- easy application through a laparoscopic trocar
- is suitable for suture lines
- no memory effect

Indication

- control of capillary, venous and arteriolar bleeding
- suitable for laparoscopic use
- the absorbency of RESORBA® CELL S is greater compared to RESORBA® CELL standard
- easy to deploy and manipulate in all areas of surgery
- higher density and larger surface with frayed fibers increase the fluid absorbency

REFERENCES:

 Based on biocompatibility testing of OKCEL* products in accordance with EN ISO 10993. Data on file: 18640-033.
Based on OKCEL* instructions for use. Data on file: 18640-033.
Shudhich Lahovský, MD. Evaluation of efficacy and safety of medical devices series OKCEL*. Study Report Ref. No AP-SY-1501. Data on file: 18640 – 033.
Jindřich Lahovský, MD. Evaluation of efficacy and safety of the medical device OKCEL*S. Study Report Ref. No AP-SY-1701. Data on file: 18640 – 033.
S. Ing. Iveta Brožková, Ph. D. Department of Biological and Biochemical Sciences at the Faculty of Chemical Technology, University of Pardubice. Final report on testing the antimicrobial activity of the product OKCEL*. Data on file: 18640 - 034.
I.dirdich Lahovský, MD. Závěrečná zpráva laboratorního vyhodnocení Vlastností hemostatik na bázi oxidované regenerované a neregenerované celulózy. Study Report Ref. No. AP-SY-1901. Data on file: 18640 – 034.
I. K. M. Lewis, DVM, D. Spazierer, PhD, M. D. Urban, HT (ASCP), L. Lin, PhD, H. Redl, PhD, A. Goppelt, PhD: Comparison of regenerated and non-regenerated oxidized cellulose hemostatic agents. [on-line]. Eur Surg. 2013; 45(4): 213–220. Available on: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3739866/

IMPORTANT:

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RESORBA Medical GmbH · Am Flachmoor 16 · 90475 Nürnberg, Germany Tel. +49 9128 91 15 0 · Fax +49 9128 91 15 91 · infomail@resorba.com · www.resorba.com