

BAUER BANDAGE
TURKEY/MIDDLE EAST

PRODUCT PRESENTATION

ABOUT THE PRODUCT

Carbon is one of the basic elements of the entire universe. Likewise, the human body is made of carbon. In the early 90s, the carbon was already partly utilized in regular industry and more and more studies showed potential of carbon in the field of medicine. In 1990 Mr. Bauer bought company producing a company called BETTAC plus s.r.o., which was producing a product called ACATEX, the predecessor of later Bauer Bandage Special. During development, especially during the clinical test and trial period of 1992-1994 it became evident that the product is suitable for safe wound treatment. Since 1998 Mr. Bauer focused with his team to improve the carbon fabric used and to develop a diffusion pump for the effect enhancement.

These development activities led in 2004 in a shelf ready product called Bauer Bandage special. Which was tested for use in surgery, dental medicine, dermatology, traumatology, gynecology, in some areas of internal medicine and oncology. The best examined and utilized is the field of non-healing wounds such as ulcers and similar phenomena.

For capitalising the potential following certificates have been acquired.

2005 FDA certification (USA, Mexico, partly Asia countries)

2006 CE certification (valid within the EU)

2018 ISO 13485 certification (valid for all ISO standardized countries)



ABOUT THE PRODUCT

BAUER BANDAGE SPECIAL

BBS is an active carbon bandage designed to effectively clean non-healing wounds (especially trophic, ulcerative, festered areas, etc.), complicated postoperative wounds, bacterial contamination wounds to eliminate wound odor and to stop bleeding (except arterial bleeding). Banding with a layer of purified activated carbon in a microfilamentary form with osmotically potentiating sorption properties, sterile, single use.

NSN: 6510160074432



BAKOP 1 SPECIAL

They are intended for first treatment of gunshot, stab and other injuries, to prevent the spread of infection, the treatment of non-healing wounds, complicated surgical wounds, wounds with bacterial contamination, and odor from the wound to stop bleeding (except for arterial bleeding), and further use with direct application to the wound.

The product BAKOP 1 SPECIAL is available in white (or in color according to the look) in the form of a bandage 10 cm in width and 5 m in length, with a stitched cushion (sorption part of the article) rolled into a ruck, supplemented with a stainless lock pin.

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BAKOP 2 SPECIAL

They are intended for first treatment of gunshot, stab and other injuries, to prevent the spread of infection, the treatment of non-healing wounds, komplikovanýmých surgical wounds, wounds with bacterial contamination, and odor from the wound to stop bleeding (except for arterial bleeding), and further use with direct application to the wound.

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BAKOP 2 SPECIAL is with two pads, one is sliding (suitable for shots through).

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ABOUT THE PRODUCT

UNIQUE PROPERTIES



CARBON PURITY

CARBON PURITY

Total purity of carbon allows application of the bandage right onto the wound area without any barriers. The purity of carbon used in various medical products ranges between 70–99.99 %.



ADAPTABILITY

ADAPTABILITY

Elasticity and cohesiveness of carbon fibres enables the ACB to be cut and adjusted for the wound according to need, both in terms of a desired area as well as a particular shape for filling out a wound cavity.



MIKROSTRUCTURE

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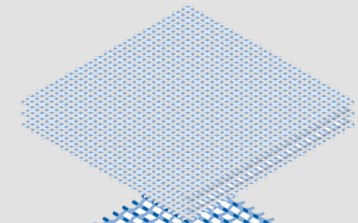
Elastic fibre structure enables drainage of "exudate" during the primary absorption phase into deeper areas of the bandage towards secondary adsorption.

COMPOSITION

COVER LAYER

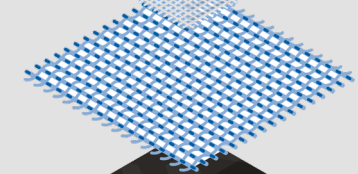
cotton, gauze, ...

Layer for water retention and sorbent drainage



DIFFUSION LAYER

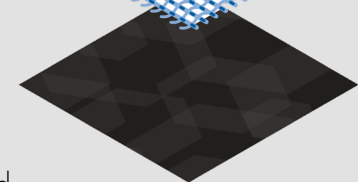
Ensures diffusion gradient.



CARBON FABRIC

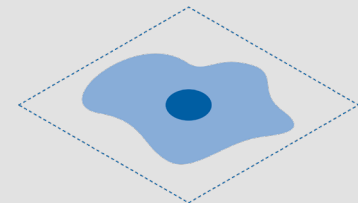
Active sorbent

Stabilizes and harmonizes the environment inside the wound



WOUND SURFACE

with exudate

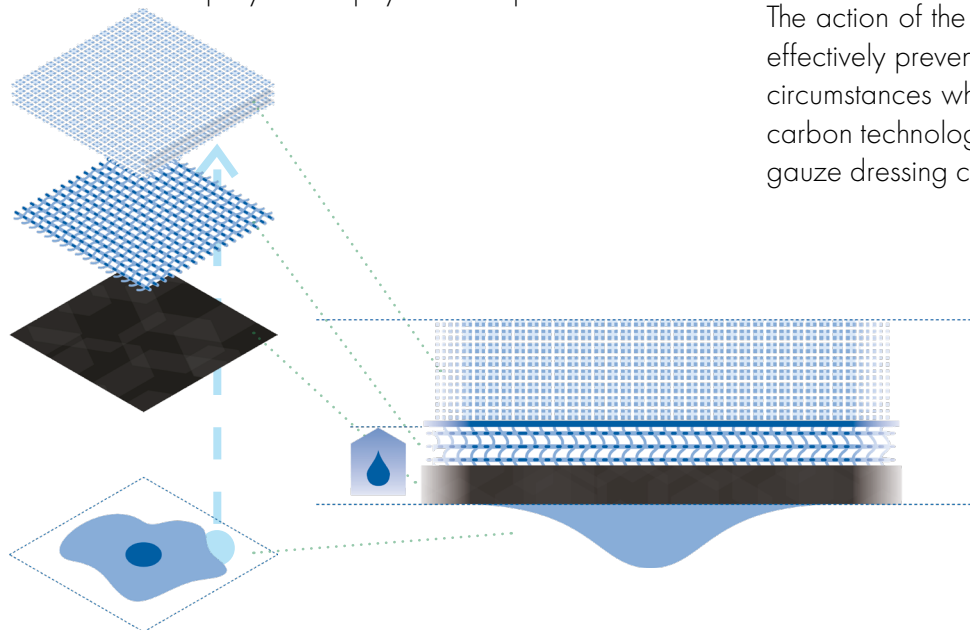


ABOUT THE PRODUCT

HOW IT WORKS

WET HEALING

A liquid column, pervading the layer of carbon fabric as well as the unwoven fabric, is applied to the wound, creating a diffusion-pump effect which eliminates undesired substances and particles from the wound environment. The system uniquely utilizes physical transport mechanisms.



THE WET HEALING PROCESS RELIES ON THE INCREASED SORPTION CAPACITY, ENABLED BY A DOUBLE-ACTIVE LAYER CREATED BY COMBINATION OF UNWOVEN FABRIC AND CARBON FABRIC.

The combined effect of the two layers creates a diffusion pump in the water column, ensuring a continuous flow and filtration of the wound exudate.

The action of the material both promotes natural regeneration of the tissue and effectively prevents and treats inflammations without any need for antibiotics. In circumstances where the risk of infection is highest, timely application of active carbon technology can save lives and help prevent amputations which ordinary gauze dressing could not.

Free pervasion of all cover layers for macromolecules enables first the absorption and then long-term transport of dissolved substances according to the principle of Brownian motion.

Suitable sorption liquids for optimal sorption capacity:

- Sterile waters
- Physiological solution (to be applied to painful wounds)
- Thoroughly boiled and cooled drinking water (at home)

ABOUT THE PRODUCT

THE MOST NOTABLE BENEFITS

- Actively intercepts microorganisms
- Actively intercepts chemical agents
- Optimizes healing environment
- Shorter treatment cycles
- Lower cost of treatment
- Is non-toxic
- Is non-allergenic
- Helps prevent secondary infections
- High sorption capacity
- Low wound adherence
- Facilitates free inflow of liquids and vapors
- Enhanced pain relief
- Deodorizes
- Comfort during dressing changes
- Stops bleeding

GENERAL UTILIZATION

The properties of this product and the convenient form of application allow its use under various conditions:

- In infected defects it significantly improves wound debridement, creates moist environment and accelerates the healing process in all stages
- According to the intensity of exudation, it may be left in the wound for several days, decreasing the necessity of frequent dressing changes
- Decreases the risk of nosocomial infections
- Easy application
- Suitable to treat chronic wounds within the outpatient department

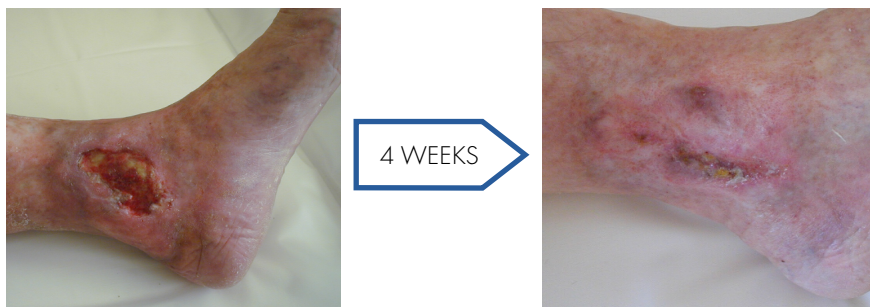
AREAS OF USE

Dermatology
Surgery
Gynaecology
Dental medicine
Oncology - exuding defects
Orthopaedic medicine
Some areas of internal medicine
Protection against poisonous substances and gasses
War surgery

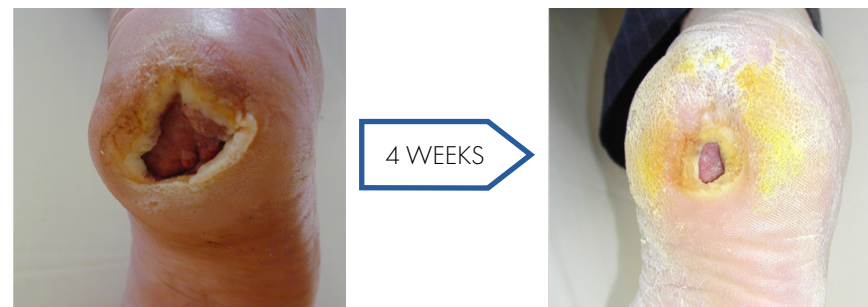
EXAMPLES OF USE

LONG-TERM WOUNDS

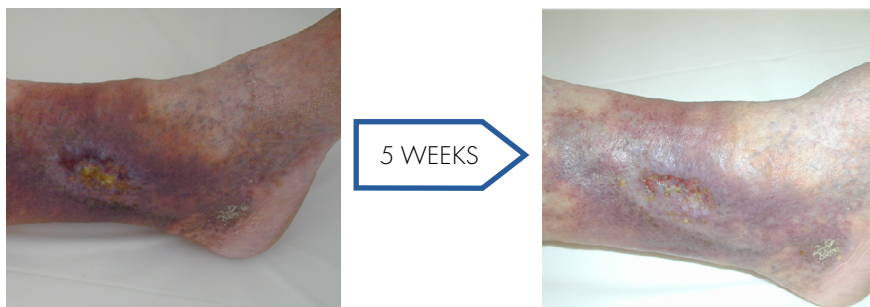
ULCUS CRURIS VENOSUM



DIABETIC ULCERATION



ULCUS CRURIS MIXTUM



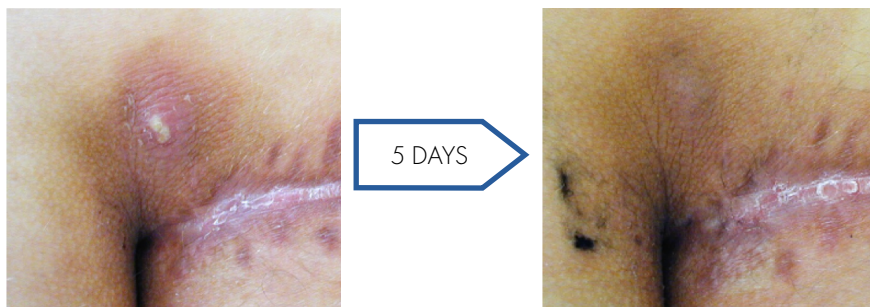
DIABETIC ULCERATION



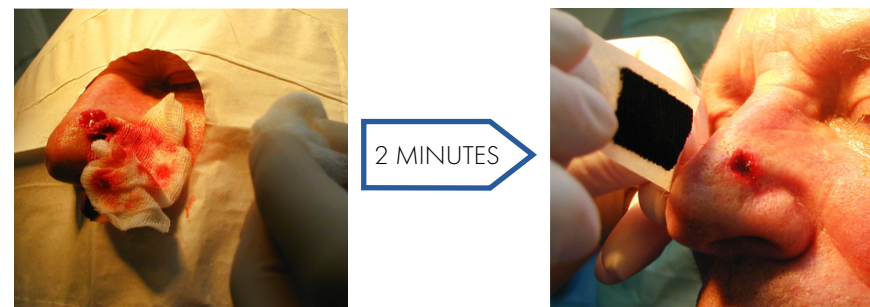
EXAMPLES OF USE

SURGERY

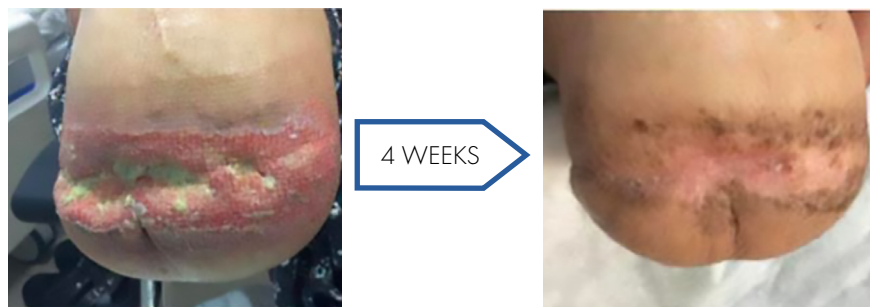
CARBUNCULUS REG. GLUTEI



ROUTINE SURGERY - STOP BLEEDING



AMPUTATION



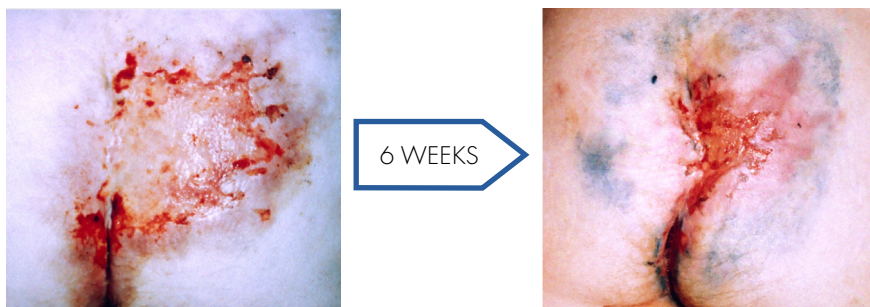
ROUTINE SURGERY - STOP BLEEDING



EXAMPLES OF USE

DERMATOLOGY

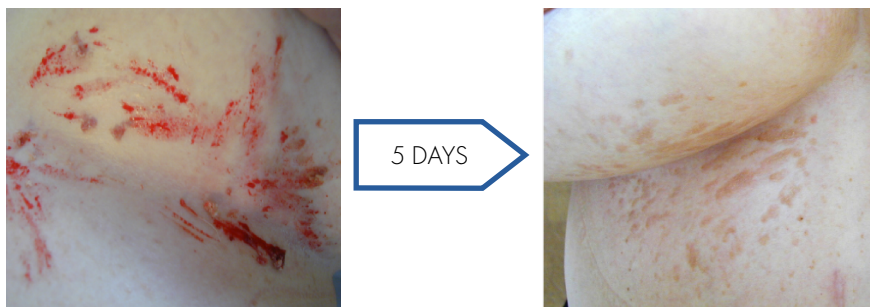
LICHEN SCLEROSUS ET ATROPHICUS



BURN



EXCOCHLEATION OF VERRUCA SENILIS



BURN



EXAMPLES OF USE

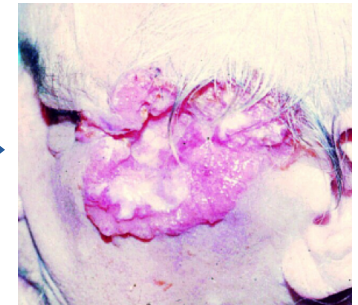
TRAUMATOLOGY & ONCOLOGY



72 HOURS



14 DAYS



1 MINUTE



35 DAYS



EXAMPLES OF USE

DENTISTRY

BEFORE



DURING OPERATION



AFTER 8 DAYS



EXAMPLES OF USE

WAR MEDICINE AND SHOOTING INJURY - BAKOP SPECIAL

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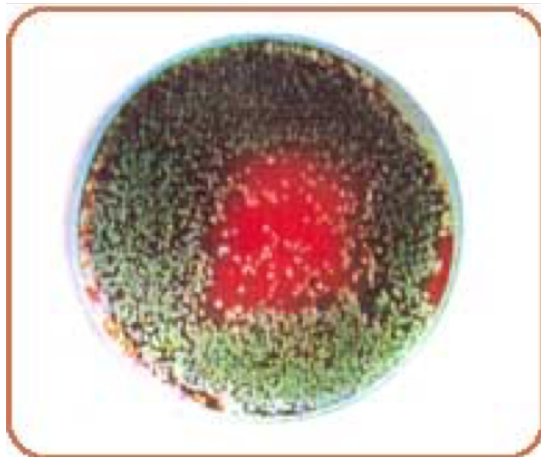
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MICROBIOLOGICAL PROPERTIES

- Absorbs microorganisms
- Effectively prevents the growth of bacteria
- Eliminates *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Escherichia coli* within 24 hours
- Repeatedly proven by clinical trials

Escherichia coli CNCTC 301/60 24 culture on Blood Agar, 1 ml of inoculum and the concentration of 2.103 CFU/ml following the application of CARBON MULTI-COMPRESS applied for 3 hours



Escherichia coli CNCTC 301/60 24 culture on Blood Agar, 1 ml of inoculum and the concentration of 2.103 CFU/ml following the application of CARBON MULTI-COMPRESS for 6 hours



CLINICAL STUDIES

SUCTION CAPACITY IN MODELLING CLINIQUE CONDITIONS

First of all, the suction capacity of single squares of active carbon, without enclosed fanfolded gauze.

Material sucked very unevenly and with all three tested samples the suction stopped, when 1/2 to 2/3 of the surface of the samples were saturated.

During the first tens of minutes, weight dependence of sucked modelling liquid on the period of sucking was almost linear. After cca 60 minutes the sucking started to slow down. After 8 hours samples still slowly sacked. For this reason the samples were left in the equipment over the night and the final value of the suction capacity were stated after 24 hours from the test opening.

With all tested samples, cca 80% of the tested liquid was sacked during first two hours. During 8 hours from the test opening, cca 90% of the tested liquid was sucked.

PROTECTIVE EFFECT OF DRESSING AGAINST THE SECONDARY BACTERIAL CONTAMINATION

Opening contamination of outside of the samples was several bacterial colonies up to mesoscale contamination (more then 50 colonies on sample mark).

Contamination of outside of the sample and relevant penetrating of the tested bacterias through the bloodily sample from contaminated side to contact side was observed by cultivation of marks of outside and contact side. Marks were done in 1, 24, 48 and 72 hours from opening the tests. As it was stated by the cultivation of marks made 24 hours from the opening of test that outside there are not presented any tested bacterias, contaminations was restored after 48 hours from the test opening.

This time it was very strong contamination (over 100 colonies on the sample mark)

There was no penetration back of the tested bacterias from outside to contact side with any of the samples.

CONCLUSIONS

Tested samples of the dressing material Bauer Bandage have average suction capacity in modelling clinic conditions 3,9 g/g.

Period of protective effect against secondary bacterial contamination is, regarding dressing material Bauer Bandage, 72 hours at minimum

MORE CLINICAL STUDIES ARE UPLOADED ON DROPBOX.

REFERENCES

Prof. Mudr. Alena Pospíšilová CSc - University Hospital Brno Bohunice, Czech Republic

- „Based on our own experience at the University Hospital Brno and other workplaces that applied sorption bandages from active carbon fabric to a sufficient number of patients, it can be stated that the tested product meets the requirements for it and therefore, for the above reasons and on the basis of other expert opinions, Carbon Multi-Compress recommend for use in both outpatient and non-medical treatment of chronic and common wounds, use in both human and veterinary medicine not only for its therapeutic properties but also for economic reasons.“

Doc. MUDr. Hana Zelenková, Phd – president of European dermato-venerological academy, head physician of NsZ Svidník, Slovakia

- „The use of the composition has been shown to be extremely effective in healing acceleration in these indications. Patients spontaneously communicated the retreat of pain, the elimination of a factor that often prevented the patient from joining society was excellent. After the application of the dressing, a very rapid cleaning of the bottom of the defect with the onset of granulation was evident. Carbon Multi-Compress, in our opinion, has much better properties than similar products.“

Prof. Thomas V. Taylor, MD, FACS, FRCS, FACG - Professor of Surgery Houton Central Hospitals, Texas USA

- „I used this active carbon dressing to treat patients and I am very surprised. Not only did it greatly absorb the discharges, but it greatly accelerated the healing process. Patients are very satisfied.“

THANK YOU
FOR YOUR ATTENTION

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