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New generation dressing types

- Transparent polyurethane dressing
- Foam polyurethane dressing
- Foam silicone dressing
- Hydrogels
- Hydropolymer dressing
- Hydrocolloid dressing
- Xerogels
- Alginate dressing and filling materials
- Dressing materials containing activated carbon
- Gauze dressing materials
- Others



Carbon dressing

- Correct name – **absorbent dressing materials containing activated carbon**
- **The first material development experiments performed 40 years ago** in the former Soviet Union, Japan, companies Johnson-Johnson, Hartmann and others
- **1990 – the Czech Republic** – development of original dressing material containing activated carbon
- **1992 – 1994** – clinical trials and introduction into practice
- **2008 – radical change in production and development of other dressing with a new name -TECASORB**

Carbon dressing – general indications

Human and veterinary medicine

Basic properties:

- Highly absorbent, provides wound moisture regulation
- acts as bacteria barrier
- promotes wound debridement
- odour reduction
- suitable to treat severely exuding wounds covered with discharge
- fosters haemostasis



Carbon dressing

- Absorbent dressing made of activated carbon dressing is hydrophilic, with water vapour permeability
- Suitable to absorb organic matter, micro organisms, toxins and reduce odour

Double layer dressing:

- Upper layer made of white non woven textile consisting of 50% polypropylenes and 50% viscose bound in a way not harmful to health, works as a carrier
- Lower layer – black absorbent

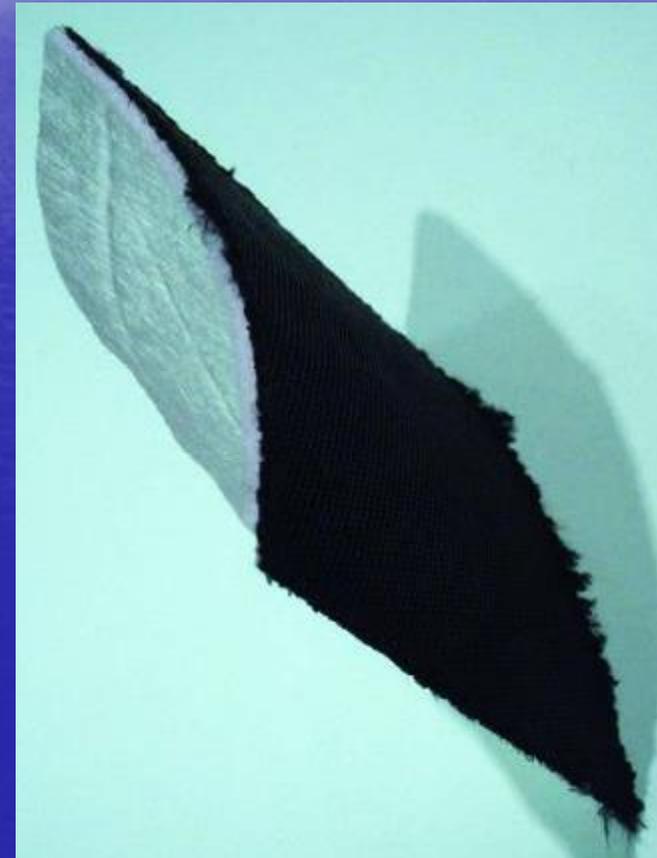
Carbon dressing TECASORB



Carbon dressing

TECASORB made of elastic fibres with macroscopically smooth surface made of hydrated cellulose fibre

- **Thermally processed fibre**
- Specialised technology outcome - *carbonisation and activation with higher temperatures* → material made of activated carbon fibres with high absorbance



Carbon dressing

- **CARBONISATION** – taking place at hundreds of Celsius degrees
- Final outcome and product: micro porous structure of the carbon fibre with high absorption capacity
- The size of the micropores being 0,6 - 0,8cm³ /g
- **ABSORBENT** that gets into close contact with the wound bed actively retains micro organisms and chemical substances
- **ABSORBENT** that prevents secondary infection
- **ABSORBENT** that shows significant odour reducing properties
- Accelerates wound healing



Carbon dressing

- dressing is easy to apply and remove
- causes no trauma causes during change of dressing
- does not dry out and adhere to the wound
- causes no secondary wound pain



Carbon dressing – 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



Carbon dressing – indication areas

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

Carbon dressing – General Employment

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**

Carbon dressing- Use in Dermatology

- **Management of lower leg ulcers of various aetiology (mainly post thrombotic)** - often with prominent exudation. In this case, the absorbance preconditions the creation of moist environment
- Diabetic defects – diabetic foot
- Pressure sores
- **Pyoderma, Pyoderma gangrenosum**
- Burns
- Exulcerated necrobiosis lipoidica
- **Exulcerated lichen sclerosus et atrophicus**
- Other skin defects of various aetiology



Carbon dressing – Treatment Method



Carbon dressing – Treatment Method



Carbon dressing - Dressing changes

- The time of application is to be determined according to the condition of the area to be treated, course of healing and the feelings of the patient
- In case of infected defects the dressing is to be changed every 6 – 12 hours
- Following the improvement of the condition, the optimum time of Carbon dressing application is 24 – 72 hours

Deep wound therapy

- It is advisable to moisten the absorbent with physiological solution or sterile water in order for it to more properly adhere to the wound bed
- The area around the wound must be treated with indifferent preparations to prevent possible impetigo occurrence



Carbon dressing – Therapy effect

- Ulcus cruris venosum - Therapy commencement, condition after 4 weeks



Carbon dressing – Therapy effect

- Diabetic ulceration - Therapy commencement, condition after 26 days , complete healing



Carbon dressing – Therapy effect

- Diabetic ulceration - Therapy commencement, condition after 28 days



Carbon dressing - dermatosurgery



How to stop the bleeding:
The product is sold in a sterile package
After the removal of the package, the product is to be pressed on the bleeding area for approximately 15 seconds
After the bleeding has been stopped, the wound is to be covered with sterile dressing

Carbon dressing

- Fully meets the requirements imposed on products of this kind
- The product is recommended to be used not only in case of hospitalisation
- But also in therapy of patients within the outpatient department including /lay/ patients with chronic wounds (due to simplicity of use)
- Suitable to be further used in human and veterinary medicine
- Modern treatment material of the 21st century, guarantees excellent therapy effect
- As well as benefit and comfort for the patient

