

Sterile hydrogel dressing
for professional wound management

 **Neoheal**[®]
MOIST WOUND HEALING

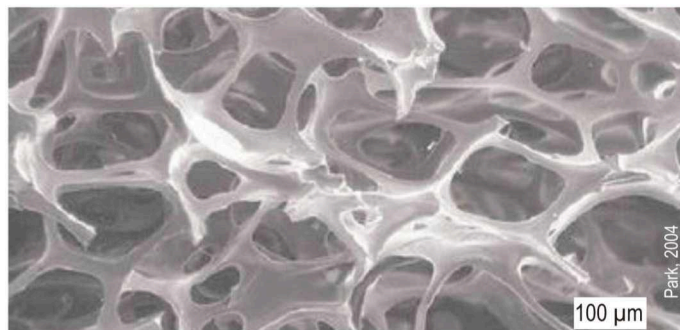


 **Kikgel**

Neoheal[®] hydrogel dressings are an aqueous composition of natural and synthetic polymers such as polyvinylpyrrolidone, polyethylene glycol and agar, cross-linked by a beam of electrons. Thanks to radiation processing, the product features sufficient mechanical strength and is fully sterile. In the form designated for end users, it is a 3.5 mm thick hydrogel sheet, containing polymers and over 90% water, constituting a three-dimensional network.¹ This important feature provides the special advantages of hydrogels when compared with other dressings: fluid absorption, hydration of the wound bed, cooling of the wound surface and pain control. Only hydrogel dressings can absorb or donate water to the wound environment depending on the relative state of hydration of the tissue.

Advantages of Neoheal[®] hydrogel dressing

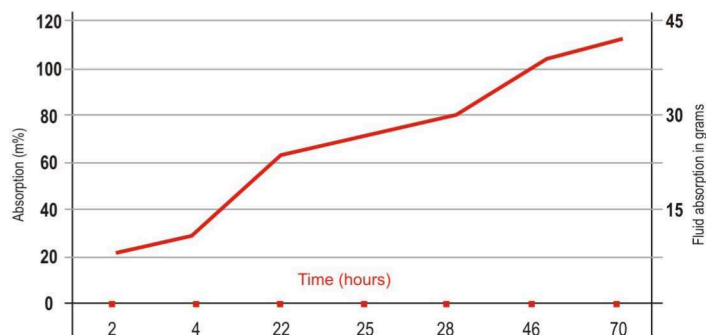
- Promotes fast healing through maintenance of an optimal moist environment
- Cools, soothes local pain and discomfort
- Absorbs wound secretions
- Permeable to water vapor and oxygen but impermeable to bacteria – it helps protect wounds from external contamination
- Does not adhere to the wound, allowing the dressing to be removed without trauma
- Conforms easily to any contour of the body
- Transparent to enable wound observation and assessment of healing process
- Biocompatible, non-cytotoxic, non-allergenic



Three-dimensional network of hydrogel after drying. The polymer network swells as it takes up water



Absorption capacity of Neoheal[®] 10x10 cm



Neoheal[®] is recommended for treatment of

- abrasions and damages to the epidermal layer of skin
- burns
- ulcerations
- bed sores
- other chronic wounds, e.g. *diabetic foot*, *Epidermolysis Bullosa*

Neoheal[®] creates a moist environment on the skin surface, assists in autolytic cleansing of dead tissues, and exerts a positive influence on the processes of granulation and epidermisation of the wound. The dressing adheres well to the surface of the wound but is not adhesive; thus application and removal is painless. Neoheal[®] absorbs exudate from wounds and traps it, along with bacteria, in its structure.

Neoheal[®] is elastic and flexible and makes it possible to dress hard-to-access body parts such as the face and areas around joints.

The Neoheal[®] dressing is transparent, enabling observation of the wound site or primary dressing and minimising the frequency of changing dressings. Thanks to its properties it can be used as a secondary dressing for many drugs and preparations placed directly on the wound. The unique structure of the dressing creates a barrier to external bacteria, yet enables the skin to 'breathe'.

The high water content of the dressing provides soothing qualities in cases of superficial burns and swelling caused, for example, by insect bites.

The dressing is non-cytotoxic and fully biocompatible^{3,4}. "Sheet hydrogel was found to be a successful substitute for porcine and/or cadaver skin in a variety of burn and burn-related wounds. The product performed well as a temporary dressing used as part of the sandwich technique, as a full-face dressing in ventilated burn patients, and to promote desloughing of partial-thickness burns. Hydrogel does not appear to stimulate an inflammatory response and facilitates burn preparation for surgical debridement. It is absorbent and well tolerated by patients who report no pain associated with the dressing change or between dressing changes."⁵



Superficial facial burn wound with hydrogel



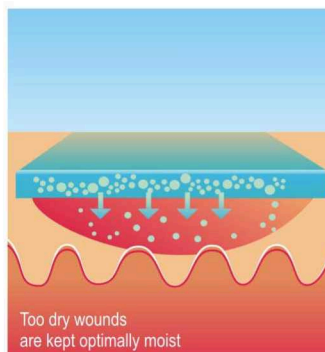
Neoheal[®] is recommended by pediatric burns



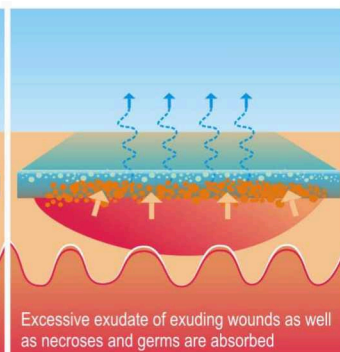
Neoheal[®] is elastic, flexible and transparent



Covering of donor site place with Neoheal[®]



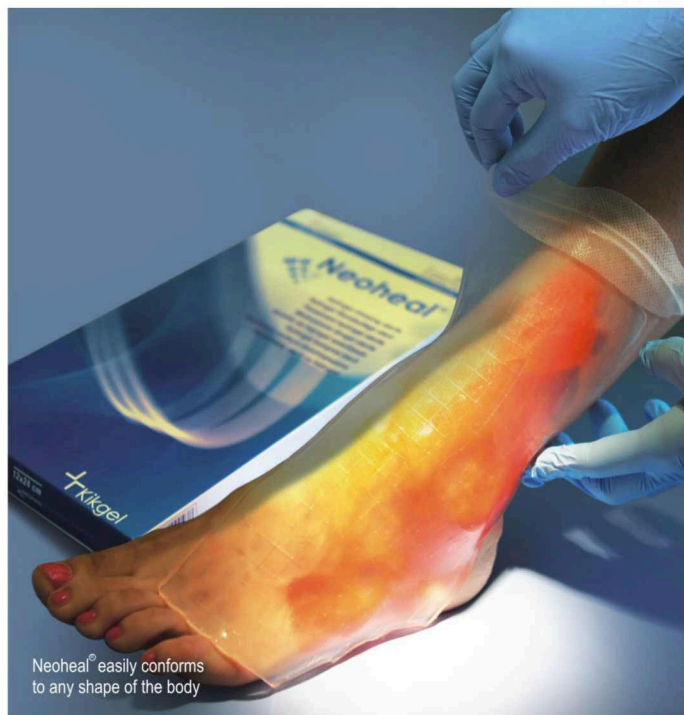
Too dry wounds are kept optimally moist



Excessive exudate of exuding wounds as well as necroses and germs are absorbed

References

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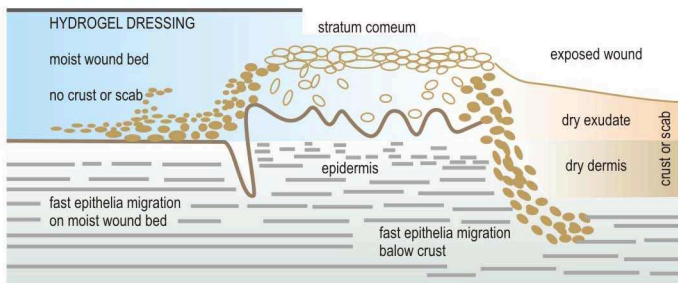
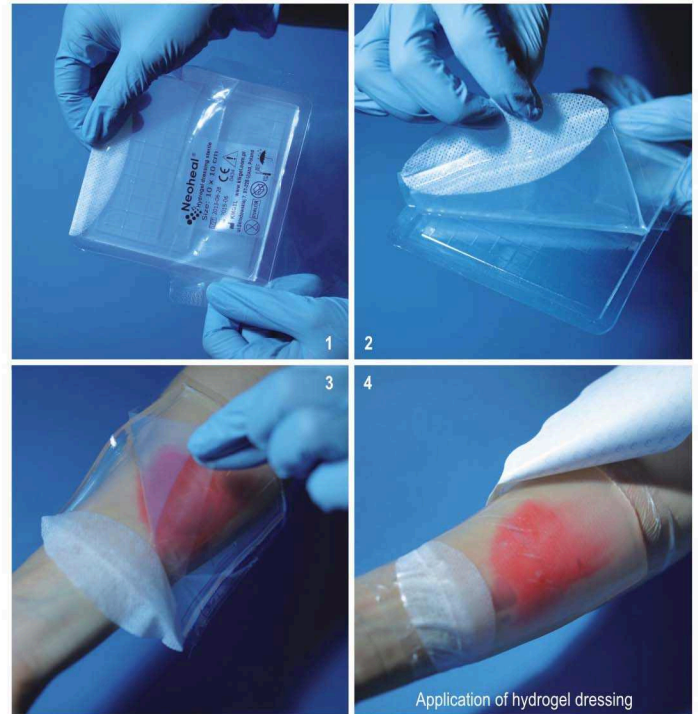
Moist wound healing

Neoheal[®] was developed by using the special Hydrogel-Technology with the innovative concept of “**Moist Wound Healing**”.

The concept of moist wound healing was first proposed by Winter⁶ 50 years ago, and subsequently an impressive number of studies has supported its value. The wound bed undergoes desiccation necrosis in the absence of adequate hydration, which can lead to a destructive cycle: The wound is debrided to healthy tissue, which then desiccates, creating more necrotic cellular debris to be removed. Subsequently, the wound may become deeper and larger. Various enzymes involved in autolytic debridement function only in an aqueous environment, and the various peptide growth factors and other molecules that mediate cellular repair can only be effective in solution.⁷

Advantages of moist wound healing^{8,9}

- Decreased dehydration and cell death. Neutrophils and fibroblasts necessary for wound healing cannot thrive in a dry environment
- Increased angiogenesis
- Enhanced autolytic debridement
- Increased re-epithelialization. Dry crusted wounds decrease supply of blood and nutrients which thus results in a barrier to cell migration and slowing of epithelialization
- Decreased pain. Moist wound bed insulates and protects nerve endings thereby reducing pain



On the left, the wound is covered by hydrogel dressing

Manufacturer



KIKGEL Company has been manufacturing hydrogel dressings for almost 25 years based on the technological expertise of its team and quality management system according to ISO standards. Our products are CE-marked and FDA-approved. The innovative method of production of hydrogel dressings has been rewarded at many international exhibitions.



42nd World Exhibition of Inventions and Innovations BRUSSELS EUREKA '93 – gold medal
Special award of the EUREKA jury and of the Minister of the European Union



International Exhibition of Inventions IENA '95 - Nürnberg – silver medal



International Exhibition GENIUS '96 Budapest – bronze medal



The dressings are available in the following sizes:



∅5 cm



∅6.5 cm



6x12 cm



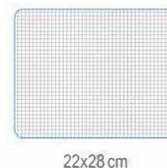
10x10 cm



12x12 cm



12x24 cm



22x28 cm



facial mask
25x25 cm



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