Advanced wound healing and professional scar management
Patients seeking dermatologic and plastic surgery interventions have high expectations

Fast wound healing is key to minimize abnormal scar formation.1

“The main focus for clinicians is to achieve rapid epithelialization as a first measure of wound care to manage abnormal scar formation. This is particularly important for wounds subjected to tension due to motion, body location or loss of tissue.”1

Features of Stratamed and Strataderm – the ideal material for advanced wound dressings

There are two key features of Stratamed and Strataderm: their resulting durability on the skin as a sheet, and their permeability to many molecules (water vapour, oxygen, drugs, etc.) but their impermeability to water. Stratpharma technologies provide distinctive properties for innovative health care applications, which can lead to improved comfort for patients and better patient compliance.2,3

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>Inert</td>
<td>− Does not host or allow the proliferation of bacterial growth</td>
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<td></td>
<td>− Will not stain or corrode other materials</td>
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<tr>
<td>No pH value</td>
<td>− Does not affect the protective acid mantle of the skin</td>
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<tr>
<td>Molecular structure</td>
<td>− Ability to form sheets</td>
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<tr>
<td></td>
<td>− Flexibility and adaptability</td>
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<tr>
<td>Strong chemical bonds</td>
<td>− Not susceptible to oxidation</td>
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<td></td>
<td>− Not susceptible to thermal degradation</td>
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<tr>
<td>High molecular weight</td>
<td>− Not absorbed through the skin</td>
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<tr>
<td></td>
<td>− Not absorbed into the human gastrointestinal tract</td>
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<tr>
<td></td>
<td>− Excreted without modification</td>
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<tr>
<td>Low chemical reactivity</td>
<td>− Superior biocompatibility with human tissue and other body fluids</td>
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<tr>
<td>Low surface energy</td>
<td>− Low or non-existing allergenic profile</td>
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<tr>
<td>Hydrophobicity</td>
<td>− Waterproof</td>
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<tr>
<td>Film forming</td>
<td>− From transient sheets and thin, superficial coverings, to more substantive, longer-lasting sheets with self-leveling or adhesive properties</td>
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<tr>
<td>Permeability</td>
<td>− Modulates the diffusion of many substances (oxygen, carbon dioxide, water vapor)</td>
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<td></td>
<td>− Avoids tissue maceration</td>
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<tr>
<td>Pharmacoeconomic</td>
<td>− Used to reduce nursing time but also to improve comfort and reduce wound complications</td>
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</tbody>
</table>
Stratamed is an advanced film forming wound dressing in the form of a self-drying gel. Stratamed is flexible, adaptable, and creates a full contact surface.

- Stratamed is a transparent gel for topical application. It dries into a thin and flexible protective sheet that ensures constant contact with the wound surface 24 hours a day.
- Stratamed creates an optimal environment for faster re-epithelialization resulting in reduced downtime.
- Stratamed creates an optimal environment for the normalization of the inflammatory response.
- Stratamed is bacteriostatic (protects compromised skin areas and open wounds from chemical and microbial invasion) and inert (it does not affect the protective acid mantle of the skin).
- Stratamed is compatible with secondary absorbent dressings.

Strataderm is a self-drying gel for the management of hypertrophic scars and keloids.

- Strataderm is semi-occlusive, which allows the skin to breathe and remain hydrated. This helps to achieve a softer, smoother and flatter scar.5,6
- Strataderm forms a durable, flexible and waterproof sheet, which protects scars from microbial and chemical invasion and helps normalizing collagen production.6
- Strataderm modulates the level of basic fibroblastic growth factors (bFGF), which have an influence on the formation of hypertrophic scar tissue.6,7

Convenient and easy to use

- Rapidly drying, non-sticky and waterproof
- Can be used on joints and areas with contours
- Transparent, odorless and can be covered with make-up or sunscreen

Stratamed is bacteriostatic (protects compromised skin areas and open wounds from chemical and microbial invasion) and inert (it does not affect the protective acid mantle of the skin).
Clinical results with Stratamed

**Face lift surgery**
Monotherapy treatment with Stratamed

**Breast surgery scars**
Treatment with Stratamed in combination with CO2 fractional laser

**MOHS surgery reconstruction**
Monotherapy treatment with Stratamed

**Chronic wound**
Monotherapy treatment with Stratamed, twice daily

**Case study #2**
**Classification:** linear hypertrophic scar after nevis extraction; **Location:** chest; **Dimensions:** 1 inch length; **Age of scars before treatment:** 14 months

**3 months treatment**

**Case study #3**
**Classification:** linear hypertrophic scar after trauma; **Location:** head; **Dimensions:** 1.75 inch length; **Age of scar before treatment:** 2 weeks

**3 months treatment**

**Case study #4**
**Classification:** hypertrophic scar after surgery; **Location:** knee; **Dimensions:** 0.2 inch length; **Age of scars before treatment:** 13 months

**5 months treatment**
**Dry and moist wound healing – the difference**

**Dry wound healing**

When wounds are kept exposed to the air they will dry and form a scab. The scab protects the wound from environmental contamination, but has some disadvantages:
- Slower healing
- Cells move below the wound bed to find a moist area
- Delayed proliferation and remodeling phase

The wound will experience delayed wound healing.

**Moist wound healing**

Moist wound conditions allow optimal cell migration, proliferation, differentiation and neovascularization. Stratamed and Strataderm emulate the epidermal barrier and enhance the healing of wounds. Stratamed and Strataderm prevent water loss while maintaining the oxygen transfer rate. The wound is kept under an optimal environment for healing.

**How the combination of Stratamed and Strataderm works**

- **Stratamed:** Faster re-epithelialization of the wound bed
  Stratamed’s protective and hydrophobic film has a semi-occlusive effect and therefore improves the tissue hydration of the injured skin area. This environment allows a faster migration of keratinocytes across the wound bed and supports a more rapid re-epithelialization. The faster re-epithelialization decreases the incidence of abnormal scarring and gives patients a faster recovery time.

- **Stratamed:** Reduction of inflammatory response
  Stratamed forms a flexible, protective sheet that weakly bonds to the injured skin and protects it from chemical and microbial invasion, but it does not penetrate into the epidermis or dermis. Stratamed has no measurable pH value, and therefore does not affect the protective acid mantle of the skin and does not react with the newly forming epithelial tissues. This environment leads to a reduction in the inflammatory response (redness/diskoloration, burning sensation, itching, discomfort, pain etc), and therefore enhances therapeutic results.

- **Strataderm:** Scar management
  After the re-epithelialization of a wound, the stratum corneum is immature and still allows abnormally high levels of Trans-Epidermal Water Loss (TEWL). Dehydration is signaled to keratinocytes, which then start to produce cytokines, which activate dermal fibroblasts to synthesize and release collagen. Excessive collagen production leads to abnormal scarring.

  At this stage, the Strataderm layer restores the barrier function of the stratum corneum, reduces TEWL and stops dehydration of the skin, resulting in a normal mature scar.
Directions for use

1. Apply a very thin layer of Stratamed to the affected area and allow the gel to dry.
2. Stratamed should be applied once daily, or twice daily to exposed areas or as advised by your physician.
3. Once dry, Stratamed can be covered by sunscreen, cosmetics, pressure garments or casts.

How thin to apply?

Without the usage of a secondary dressing, Stratamed and Strataderm dry to form a flexible, protective sheet on the affected skin that is gas permeable but semi-occlusive. The layer weakly bonds to the skin and protects it from chemical and microbial invasion, but it does not penetrate into the epidermis or dermis. In order to ensure the optimal function of Stratamed and Strataderm, the applied layer should be less than the thickness of this piece of paper or as if you stretch a piece of household clingfilm over your skin.

Stratamed

On damaged or broken skin not requiring a secondary dressing:

- Apply a very thin layer of Stratamed to the affected area and allow the gel to dry. Stratamed should be applied once daily, or twice daily to exposed areas or as advised by your physician.
- Once dry, Stratamed can be covered by sunscreen, cosmetics, pressure garments or casts.

Strataderm

On damaged skin or wounds requiring a secondary dressing:

- Apply a thin layer of Stratamed then cover with the secondary dressing. Drying is not necessary. Stratamed should be reapplied when changing the dressing or checking wound progress, or as advised by your physician.

Stratamed is available in 0.17 oz, 0.35 oz, 0.7 oz and 1.75 oz tubes.

<table>
<thead>
<tr>
<th>Tube Size</th>
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</tr>
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<td>Enough to treat a 1–2 inch (2–4 cm) linear incision twice per day for over 90 days.</td>
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<tr>
<td>0.35 oz (10 g)</td>
<td>Enough to treat a 2–3 inch (5–8 cm) linear incision twice per day for over 90 days.</td>
</tr>
<tr>
<td>0.7 oz (20 g)</td>
<td>Enough to treat a 4–5 inch (10–12 cm) linear incision twice per day for over 90 days or an area of 2.5×5 inch (6×12 cm) twice per day for over 60 days.</td>
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<tr>
<td>1.75 oz (50 g)</td>
<td>Enough to treat an area of 5×6 inch (12×15 cm) twice per day for over 60 days.</td>
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The usage of Stratamed does not require changes in any existing wound care protocol. It is a simple addition to your usual process – but with great effects.

- Can be applied immediately after interventions
- Bacteriostatic, gas permeable and inert\(^9\,11\)
- Creates optimal environment for faster re-epithelialization resulting in reduced downtime\(^9\)
- Creates an optimal environment for normalization of the inflammatory response\(^9\)
- Hydrates and protects superficial wounds and compromised skin\(^9\)
- Improves the visible outcome of the treatment\(^9\)
- Provides symptomatic relief (redness/discoloration, itching, discomfort, pain)\(^9\)
- Allows management of abnormal scarring to begin earlier than ever before\(^9\)

Strataderm – for the management of hypertrophic scars and keloids.

- For old and new scars
- Once per day application
- Used to soften and flatten raised scars\(^4\)
- Used to relieve the itching and discomfort associated with scars\(^4\)
- Used to reduce redness and discoloration\(^4\)

References
3. Thomas X. Dow Corning technical paper, Form No. 52-1057–01
5. Mondrey S et al. JPRAS 2014;1–9
10. Data on file. Stratpharma AG

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