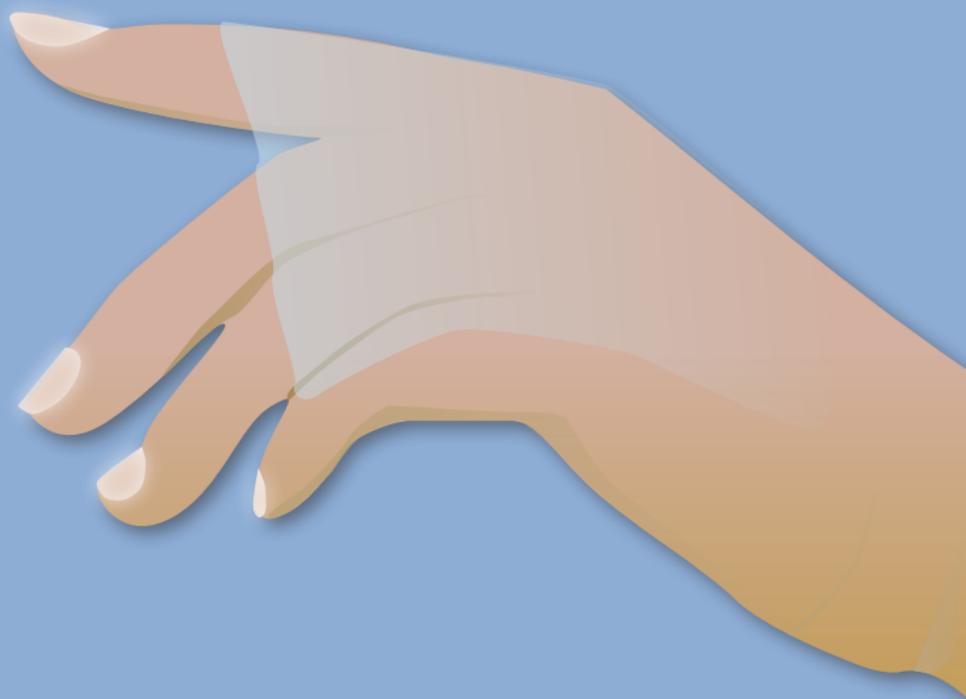


**Suprasorb® X+PHMB  
IN PRACTICE**



# Using Suprasorb® X+PHMB

## WHAT

**Suprasorb® X+PHMB** is a unique wound dressing for critically colonised or infected wounds and wounds with heavy biofilm. Its HydroBalance technology means it will absorb exudate and donate fluid at the same time, dependent on the condition in different areas of the wound bed.

## WHEN

*Indicated for wounds in all stages of healing that are:*

\* Lightly to moderately exuding

\* Superficial or deep

\* Infected

**Indications include:** Pressure ulcers, leg ulcers, diabetic foot ulcers, partial thickness burns, skin donor and skin graft sites.

## WHY

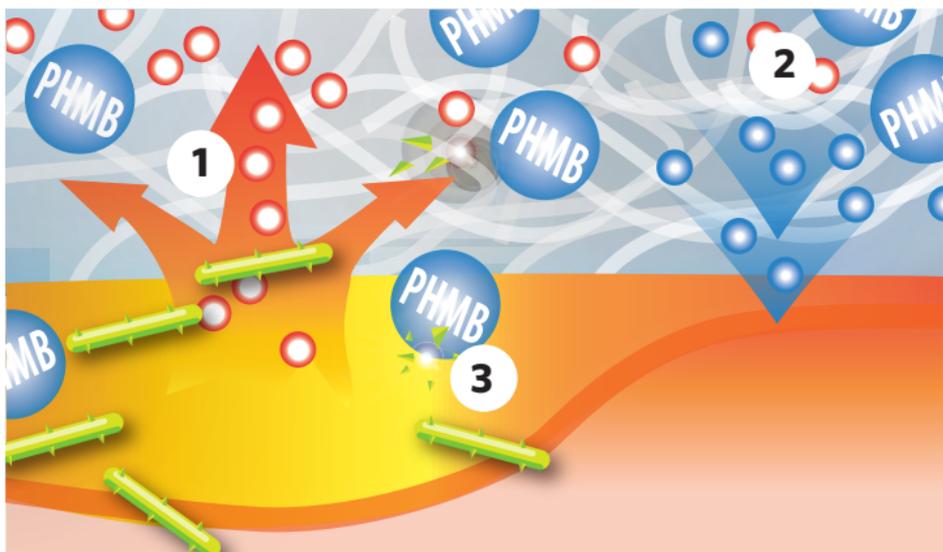
**The main benefits of Suprasorb® X+PHMB:**

- Broad-spectrum antimicrobial: fast and effective against a wide range of bacteria including MRSA & VRE
- Safe and effective: selectively acts on bacteria without adversely affecting healthy cells
- Regulates moisture levels to create and maintain a moist wound environment conducive to healing: absorbs exudate and facilitates autolytic debridement
- Reduces pain and has a cooling, soothing effect
- Well tolerated and skin-friendly
- Highly conformable and easy to apply.

## HOW

**To apply Suprasorb® X+PHMB:**

1. Clean the wound in accordance with local guidelines, ensuring that the wound edges are dry
2. Remove both sides of the film backing prior to use
3. Place the dressing over the wound and smooth to shape — Suprasorb® X+PHMB can be cut or folded to the desired shape. If using the rope, fold this several times and place gently into the wound, leaving 2—3cm visible to ensure easy removal
4. Hold in place with an appropriate secondary dressing, such as a film or foam (depending on exudate levels).



## How does Suprasorb® X+PHMB work on the wound?

**1**

Surplus exudate is taken up from the wound into the dressing

**2**

Moisture is released from the dressing into the wound

**3**

Microorganisms are killed by the PHMB released from the dressing

## Suprasorb® X+PHMB Hints and Tips

Suprasorb® X+PHMB enhances tissue health and hydrates the surrounding skin. Old epithelial cells will also be rehydrated and may appear as white deposits — this should not be confused with maceration. These deposits can be easily removed with normal cleansing.



Before cleansing



After cleansing

As per Best Practice Guidelines for infected wounds, the wound should be checked regularly and a decision made as to whether the dressing should be changed (Wounds UK, 2013).

The dressing will discolour as it absorbs exudate — it should be changed when the discolouration has reached a distance of approximately 1cm within the edge of the dressing.

Select a secondary dressing that maintains the moisture balance in Suprasorb® X+PHMB. The most suitable dressing will be dependent upon the level of exudate in the wound. If the wound produces a low volume of exudate, a dressing with low Moisture Vapour Transfer Rate (MVTR) may be selected — a film such as Suprasorb® F is a good choice. If a moderate volume of exudate is generated, a more absorbent dressing or one with a higher MVTR should be used.

In the unlikely event that Suprasorb® X+PHMB dries out during wear, simply rehydrate the dressing (e.g. using saline or tap water, as per local protocol) — this enables gentle removal without disturbing the wound.

To dress digits, the Suprasorb® X+PHMB rope is a good choice - simply weave it around and between fingers and toes.

# Introduction to PHMB

PHMB is an antimicrobial agent also known as polyhexamethylene biguanide (or polyhexanide) that has been used for its antimicrobial properties for many years (i.e. in contact lens solution and swimming pools).

## How does PHMB work?

- PHMB has a positive charge, so is attracted to the negative charge of bacterial cells
- PHMB enters bacterial cell membranes causing the cell wall to break down and leak the ions inside, resulting in cell death (Gilbert, 2006)
- This mirrors the way naturally occurring antimicrobial peptides kill bacteria

## Why use PHMB?

- PHMB has a good a biocompatibility index score, meaning it is an extremely effective antimicrobial, whilst having low toxicity

## The influence of PHMB has been shown to:

- Reduce pain rapidly and effectively
- Reduce malodour
- Increase granulation tissue formation
- Increase keratinocyte and fibroblast activity
- Reduce slough
- Reduce MMP-induced periwound breakdown (Wounds UK, 2010)
- Help remove non-viable tissue (Kaehn, 2009)

## References

Gilbert P (2006) Avoiding the resistance pitfall in infection control. Does the use of antiseptic products contribute to the spread of antibiotic resistance? *Ostomy Wound Manage* 52(10A Suppl): 1S-3S

Kaehn K (2009) An in-vitro model for comparing the efficiency of wound rinsing solutions. *J Wound Care* 18(6): 229-36

PHMB and its potential contribution to wound management (2010) Wounds UK, Aberdeen.

Available at: [www.wounds-uk.com](http://www.wounds-uk.com)

Schultz G (2015) The role of biofilms in wound chronicity. Oral presentation. 25th Conference of the European Wound Management Association. London, UK

Wounds UK (2013) Best Practice Statement. The use of topical antimicrobial agents in wound management. London: Wounds UK. Available at: [www.wounds-uk.com](http://www.wounds-uk.com)

# Case studies

## The evidence: Infected leg ulcer



Within 12 days *Klebsiella* infection eradicated

Pain reduced from 8 to 3 on VAS scale

Fumarola S, Oral presentation, EWMA, Helsinki 2009

## The evidence: Infected wound to the hand



Significant wound improvement in 7 days

Orig R, Wounds UK, Harrogate 2010

**Suprasorb® X+PHMB can also be used in conjunction with Debrisoft® to manage biofilm.** An estimated 60%—90% of chronic wounds contain a biofilm (Schultz, 2015), which can cause healing to become static, even when all obvious comorbidities and wound management issues have been addressed.

- **Use Debrisoft®** to disrupt and reduce the biofilm burden, by mechanically lifting, binding and removing debris from the wound bed
- **Then, use Suprasorb® X+PHMB** to prevent reconstitution of the biofilm.