Hansaplast Elastoplast

Silicone Soft plaster: Study

Study title and source:

Determination of the Adhesive Properties of a First Aid Dressing with Silicone Adhesive in Comparison to an Acrylate-Based Adhesive

*Kuhlmann M. et al., EWMA (European Wound Management Association) Conference, Amsterdam, Netherlands, 2017)

Authors:

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Study objective:

To determine the gentle removal of a first aid dressing with silicone adhesive (Hansaplast/ Elastoplast Silicone Soft) in comparison to a traditional acrylate-based adhesive

Test dressing/sheet:

- Hansaplast/Elastoplast Silicone Soft
- Standard first aid dressing with acrylate-based adhesive

Study design:

Single-centre, randomised, controlled, blinded investigation

Participants:

30 volunteers, aged 25-63 with intact, undamaged skin

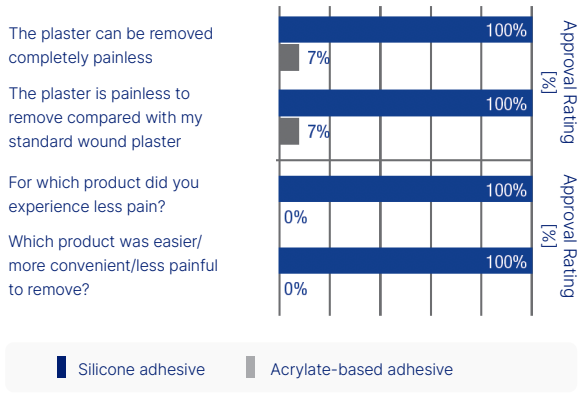

Figure: (Modified illustration of Fig.7*): Self assessment of product performance and preference, pain-free removal

Acrylate-based adhesive: 82% coverage

Silicone adhesive**: 1.6% coverage

Figure: (Modified illustration of Fig.6*): Microscopy (example), stained corneocytes on adhesive matrix after removal

** Hansaplast/Elastoplast Silicone Soft

Results:

Minimal epidermal skin stripping with a significantly lower coverage of corneocytes on the adhesive matrix of the silicone adhesive compared to the acrylate-based adhesive could be shown. Measurements of transepidermal water loss (TEWL) and skin colour demonstrated a significant lower impairment of skin barrier function and skin irritation for the silicone adhesive. Pain-free removal of the silicone adhesive** was confirmed by the test persons.

Conclusion:

The results demonstrated the gentle and skin-friendly removal of the silicone adhesive** with minimal skin damage and minimal stripping of epidermal layers and without causing pain. For self-treatment of minor wounds, first aid dressings based on silicone adhesives should be taken into consideration, particularly when fragile, sensitive or easily irritated skin is affected.