A LABORATORY EVALUATION OF THE SEALING EFFECTS OF WOUND CONTACT LAYERS

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Aim: To assess the ability of four wound contact layers (WCLs)* to form effective seals on the skin of volunteers.

Methods: Samples of the WCLs were cut to size and applied to the forearms of volunteers. Three drops (each 20µL) of Solution A (an isotonic sodium/calcium chloride solution prepared according to EN 13726-1:2002, to represent wound exudate) with an added red dye were applied to the top edges of the dressing samples. After 5-10 seconds, the volunteers were instructed to move their arms in a controlled manner before the drops were closely inspected.

Results: After the period of arm movement, the drops applied to the top edges of the samples** were still intact whereas there was evidence of liquid moving down between the skin and the other WCLs.

Conclusions: The findings highlight the unique properties of soft silicone technology in that it creates many contact points over the uneven surface of the skin, forming an effective seal with the skin right up to the wound margin. This ensures that exudate is taken up by dressings utilising this technology rather than it leaking out on to the peri-wound skin where it can lead to maceration.

*Mepitel® (Molnlycke Health Care) with Safetac® (soft silicone) on both sides; Mepitel® One (Molnlycke Health Care) with Safetac (soft silicone) on the wound contact side only; Adaptic™ (Systagenix); Urgotul® (Laboratoires Urgo)

** Mepitel and Mepitel One