ALL SILVER IS NOT CREATED EQUALLY

Silver effectiveness is derived from the amount of silver made available (solubility), plus the speed and power at which the silver kills the bacteria (reactivity)

SILVER SOLUBILITY

Silver must first dissolve into exudate in the dressing to be effective. The amount dissolved determines the solubility of the silver per million (ppm). The higher the solubility, the more silver is available to immediately start killing bacteria.[1]

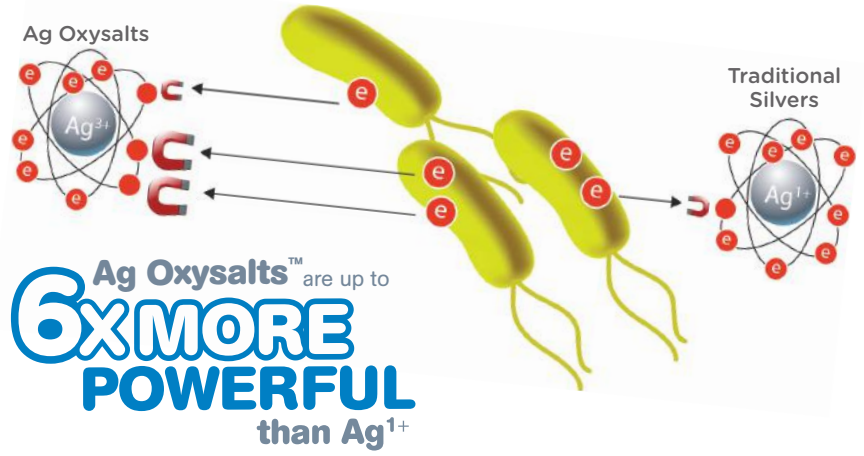
Ag Oxysalts (Ag^{3+}) have a higher solubility than traditional silver (Ag^{1+}), resulting in more silver available to quickly kill bacteria.[2]

Product Name/ Silver Species	Silver Oxidation States Present	24hr Solubility (ppm)[2]
KerraCel® Ag / Ag Oxysalts	**Ag^{1+}, Ag^{2+}, Ag^{3+}**	**11.35**
Aquacel® Ag Extra Dressing / Silver Chloride	**Ag^{1+}**	**8.12**
Maxorb® Extra Ag+ / Silver Sodium Hydrogen Zirconium Phosphate	**Ag^{1+}**	**2.38**

SILVER REACTIVITY

As silver dissolves into exudate in the dressing, it loses an electron(s) and becomes reactive. The loss of the electron(s) gives silver the ability to kill bacteria as it only becomes stable again when it pulls an electron(s) from surrounding bacteria. The more electrons that are missing, the more reactive the silver becomes - increasing the power and speed at which the silver pulls the electrons from the bacteria.[1]

Ag Oxysalts (Ag^{3+}) are designed with 3 missing electrons to make it up to 6 times more powerful at killing bacteria. Traditional silver is only missing 1 electron (Ag^{1+}) making it less effective.[1]



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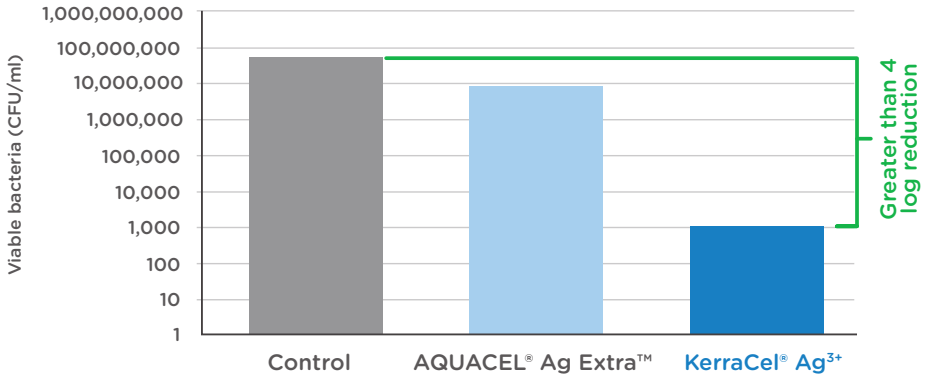
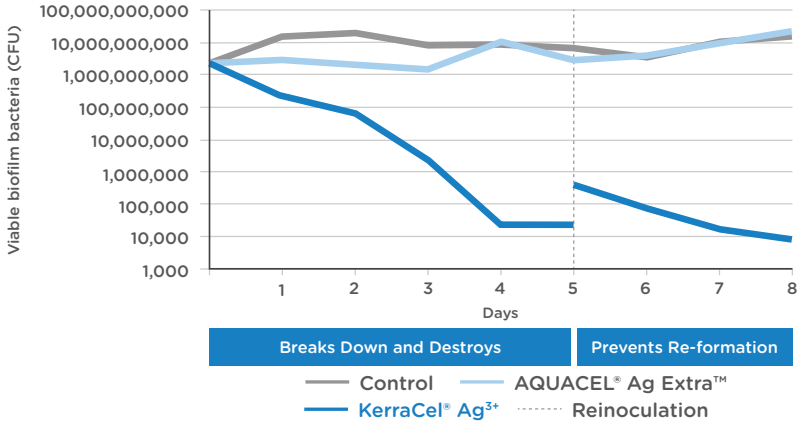
The Ag Oxysalts (Ag^{3+}) in KerraCel® Ag start to work quickly due to it's increased solubility and reach a >4 log reduction due to it's powerful reactivity. [6,7,8]

>4 log reduction within 2 hours against Planktonic *S. aureus in vitro*



Powerful enough to kill *S. aureus* bacteria within a mature 24 hour biofilm *in vitro*



KerraCel® Ag


Leg Ulcer


Pressure Ulcer


Diabetic Foot Ulcer


Open Surgical Wound


Biofilm

Product code	Size	Dressings per box	HCPCS
CWL1157	2 x 2 in	10	A6196
CWL1158	4 x 5 in	10	A6197
CWL1159	6 x 6 in	5	A6197
CWL1160	8 x 12 in	5	A6198
CWL1168	0.75 x 12 in Ribbon	5	A6199
CWL1162	COMING SOON 0.75 x 18 in Ribbon	5	
CWL1163	COMING SOON 16 x 16 in	5	

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References: 1. Spina C. Silver I, II, III: Chemical Characteristics, Properties, and Anti-microbial Activity. Data on file. Crawford Healthcare Ltd. **2.** Evaluation of silver release over 7 days from silver-based dressings in serum. CH R603. Data on file. Crawford Healthcare Ltd. **3.** Antibacterial efficacy of KerraCel® Ag and Aquacel® Ag Extra™ against planktonic species over 7 days *in vitro*. CHC R539. 2017. Data on file. Crawford Healthcare Ltd. **4.** Rate of antibacterial efficacy of KerraCel® Ag and Aquacel® Ag Extra™ against *S. aureus* and *P. aeruginosa in vitro*. CHC R540. 2017. Data on file. Crawford Healthcare Ltd. **5.** Evaluation of antimicrobial activity of KerraCel® Ag and Aquacel® Ag Extra™ against *in vitro* biofilms. CHC R541. 2017. Data on file. Crawford Healthcare Ltd.