



# Facts About Antimicrobials

Whenever an antimicrobial technology uses the words embedded, bound, contained, or mixed in a coating, it is very different than “chemically bonded”. To say it is “bound” in a coating, adhered to or on a fiber, or embedded in a fiber does not mean it is chemically bonded. Understand the facts about mode of action and you will understand how

the organosilane technology of the ÆGIS Microbe Shield® technology molecularly reacts with the substrate remaining intact as part of the treated article. It is the only technology that modifies the surface and remains durable to control the negative effects of bacteria, fungi, algae, and other microorganisms.

	<b>SILANE BASED</b>	<b>SILVER BASED</b>	<b>TRICLOSAN BASED</b>
Common Names/Variants	The ÆGIS Microbe Shield 	AgION Alphasan A.M.Y. Fosshield Meryl Skinlife X-Static and others	Amicor Biofresh Microban Rhovyl Sanitized Ultrafresh and others
Mode of Action	Engineered nano-structure mechanically punctures the cell wall membrane	Releases ionic free radicals that react with cell DNA and disrupt critical life processes in the cell	Releases toxic bis-chlorinated phenol (PCB) for consumption or cellular absorption, causing lethal mutations in the cell
Leaching: Bleeds onto the user, into water, and into the environment	Does not Leach Does not Migrate	Leaches for its mode of action. Must leach to work.	Leaches for its mode of action. Must leach to work
Durability	Permanent	Embedded in or on fiber binder, or coating.	Embedded in or on fiber binder, or coating.
Cost	Economical	The cost of silver is high	Medium cost
Effectiveness	Broad Spectrum on all known bacteria, fungi, algae, yeast	Action variable based on concentration and test or use conditions	Action variable based on concentration and test or use conditions
Adaptive Organisms	Laboratory proven not to promote adaptive organisms (super bugs)	Can create adaptive zones Resistant species identified	Can create adaptive zones Resistant species identified
Applications	Any fabric, any style, any process	Choices often limited to select fibers. Some not compatible with organic fabric. Interfere with by common environmental chemicals	Can be applied differentially to multiple fabric types depending on application procedure, coating used, or expected end use and abuse
Distribution	World wide	Vary by company	Not accepted or available in certain areas of the world



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