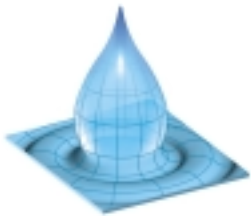


RepelaCOAT™

A N T I - M I C R O B I A L C O A T I N G



BioLAST™ Technology

AST Products' platform technology, known as BioLAST, is a water based coating technology. BioLAST contains two major components: biocompatible polymers covalently bound to substrate materials and bioactive ingredients that impart valuable characteristics to a surface. BioLAST coatings can make a surface antimicrobial, lubricious, hydrophilic, anti-thrombogenic, or anti-encrutive and can incorporate drugs for controlled release. Able to be applied to virtually any biomaterial, BioLAST coatings have been used in a variety of medical devices that have been approved by the FDA and are in use worldwide.

RepelaCOAT™ coatings are

Effective:

RepelaCOAT prevents growth of commonly occurring organisms such as E.coli, staph, and candida.

Safe:

RepelaCOAT maintains a slow release profile that minimizes toxicity to surrounding tissue.

Long lasting:

RepelaCOAT has demonstrated effectiveness for up to 30 days.

Aqueous:

RepelaCOAT coatings, since they are based on the BioLAST platform, contain no organic solvents. Safer and cleaner manufacturing processes are used and any concerns about residual solvents in a device are eliminated.

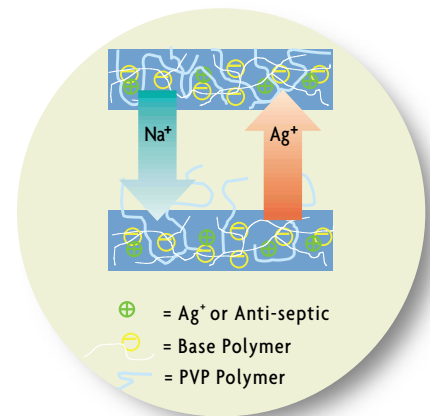
Durable:

RepelaCOAT retains its physical integrity even after hundreds of cycles.

Lubricious:

RepelaCOAT incorporates lubricious polymers that reduce patient trauma and increase ease of handling.

How does RepelaCOAT™ work?



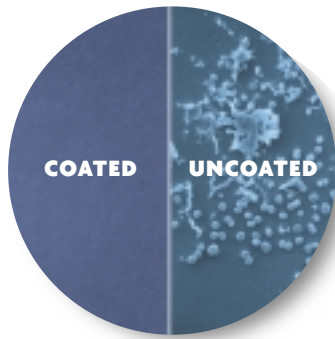
RepelaCOAT is part of the BioLAST technology platform. BioLAST's supporting polymer network is crosslinked and covalently bound to the substrate. This network is normally non-swellable in water. In this patent pending coating, silver salts and/or antibiotics are ionically bonded to the supporting polymer. In the presence of the sodium or calcium ions characteristic of body fluids, the antimicrobial agents ion exchange with these physiological cations. Long chain hydrophilic polymers incorporated in the coating adsorb water molecules and facilitate the ion exchange. Rather than exhibiting a huge "spike" of activity that diminishes rapidly over time — and that may be toxic to the surrounding tissues — RepelaCOAT prevents bacterial adherence by its slow ion-exchange release of anti-microbial agents.



Partnership Approach

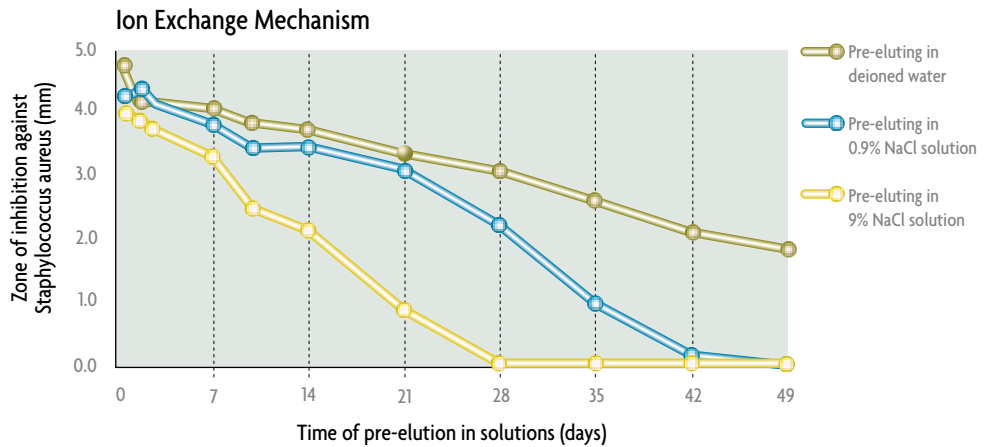
AST partners with its customers from beginning to end. Our customers have complete access to AST's considerable technical expertise throughout the device design and development process. By working with customers every step of the way, small design changes can be made early in the process that prevent huge delays and overruns late in the game. Along with the coating chemistries, a customized, easy-to-use process is developed under strict ISO design control. Our partnership support does not end with the finalization of coating formulation or product design. We work with the customers to ensure smooth and trouble-free implementation at their or at AST's facilities. To accelerate the approval of new devices, AST's experienced staff continues to provide assistance throughout the regulatory approval process and product introduction.

Anti-microbial Coating



Developed on BioLAST platform, RepelaCOAT is an infection-resistant medical device coating with a patent pending, ion-exchange release mechanism. Unlike most antimicrobial coatings that have only a brief, initial spike of activity, RepelaCOAT can be customized to have a controlled, initial "peak release" followed by a sustained release of anti-microbial agents in the presence of blood or urine.

Antimicrobial Profile – Silver Salt



Antimicrobial Profile – Antibiotic

