

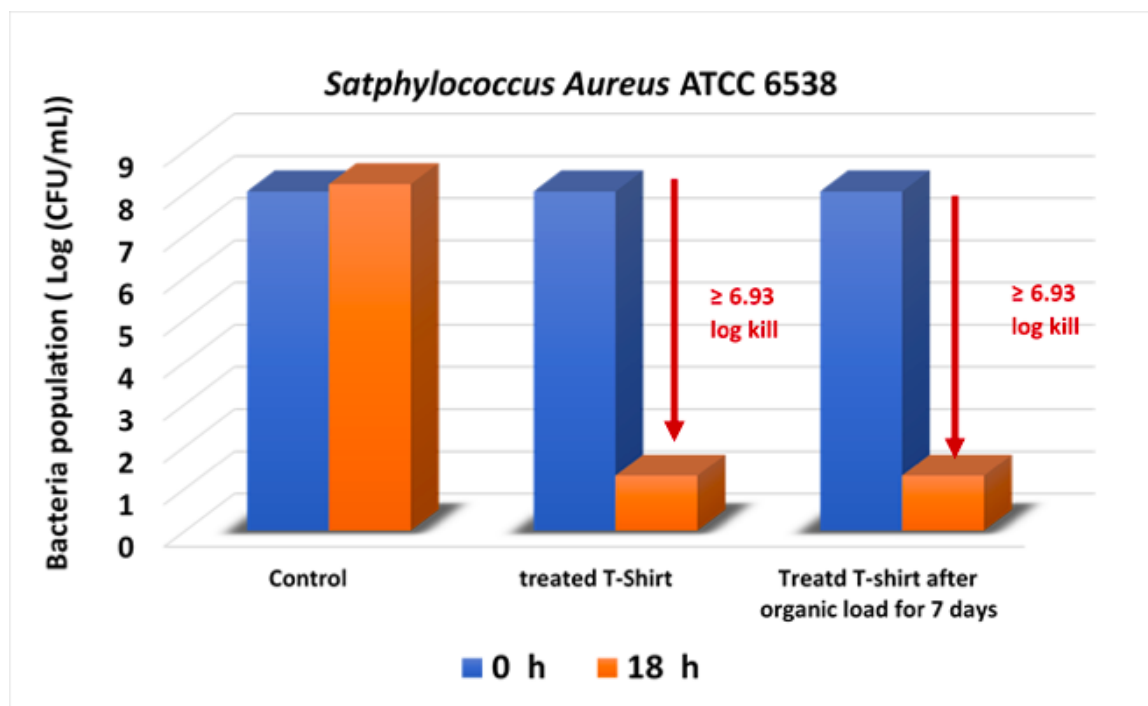
>7 Log Kill: Livinguard TShirt and Polo Fabric Antibacterial Efficiency

T-shirts treated with Livinguard Technology have been tested for its antibacterial efficiency based on DIN EN ISO 20743A:2013-12 (Absorption method) at Hohenstein laboratories in Germany. The Antibacterial test was performed against two different bacteria Species, Staphylococcus aureus ATCC 6538 and Klebsiella pneumoniae ATCC 4352.

Staphylococcus aureus is one of the five most common causes of hospital-acquired infections and is often the cause of wound infections following surgery. Each year, around 500,000 patients in the United States contract a staph infection, chiefly by S. aureus. Up to 50,000 deaths, each year in the USA are linked with S. aureus infections

Klebsiella pneumoniae can cause destructive changes to human and animal lungs if aspirated; Klebsiella species have become important pathogens in nosocomial infections.

As shown in the following graphs, Livinguard treated T-shirt before and after organic loading for seven days showed A **Strong** antibacterial performance (More than 7 Log kill) against both tested bacteria species under the given test condition.



This result indicates Livinguard treated T-shirts can kill 99.99999 % of the bacteria population, which is 100 times more effective than one that can only achieve 5 log kills. Most official disinfectant tests require a 4 or 5 log reduction in numbers to pass the test. A 5 log (99.999%) reduction is considered the gold standard in reducing the possibility of human disease transmission.

