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Thermaissance builds fabric technology to combat multi-drug resistant organisms

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Using self-disinfecting fabrics, Thermaissance currently manufactures various medical textiles



To provide healthcare workers with maximum protection against various viral, bacterial and fungal infections, Thermaissance, a Mumbai-based nanotechnology startup, continues its innovation journey.

While Thermaissance's technology has been scientifically proven to inactivate over 99.99 per cent coronavirus in less than an hour, it has also been proven to kill 99.99 per cent of various Multi-Drug Resistant Organisms (MDROs) such as Methicillin-resistant Staphylococcus aureus (MRSA), Vancomycin-Resistant Enterococci (VRE), Carbapenem-Resistant Enterobacteriaceae (CRE), and various other bacteria. Thermaissance is one of the very few players in the world to achieve this milestone.

When coronavirus comes in contact with the surface of Thermaissance fabric, Thermaissance's proprietary nanotechnology penetrates the virus membrane, and ruptures it, thus hindering its ability to thrive.

In a similar way, the bacteria's membrane is disrupted and eventually these bacteria get killed. Thermaissance fabric's antiviral effect against coronavirus is certified with ISO 18184, while the antibacterial effect is certified with JIS L 1902:2015.

Using such self-disinfecting fabrics, Thermaissance currently manufactures various medical textiles such as medical scrubs, lab coats, head covers, patient gowns, masks, and gloves. Thermaissance also has fluid repellent scrubs to provide further protection to healthcare workers against various fluids.

Manish Raval, Founder & CEO of Thermaissance, replied, "While the industry laundering of Healthcare worker's apparels produce nearly sterile garments, post-laundering practices (e.g. sorting, folding, and stacking) can easily re-contaminate clean laundry. Further, laundered medical textiles, though might be sterile, bacterial recontamination of these apparels will occur within hours of wearing such newly laundered apparels. In fact, a study has already shown that within a few hours of use, the 100% of nurses laundered gown were already contaminated with various pathogens. Hence, healthcare clothing that is continuously self-sanitizing and killing various pathogens, be it viruses, bacteria or fungi, is important in healthcare settings."