

TULTEC - antibacterial, antiviral and antifungal nanolayer

Development status

Phase 4

The transition from the prototype to the final and fully functional form. At this stage, the prototype is already fully tested, or the technology is certified and ready for mass deployment.

IP protection status

Granted Czech patents CZ 303250, CZ 303861 a CZ 305045, world priority WO 2013174356 a european patent EP2852630.

Partnering strategy

Collaboration, investment, spin-off

Warning: file_put_contents(): Only 0 of 193 bytes written, possibly out of free disk space in **/home/transfera.cz/htdocs/portfolio/lib/coreerrors.class.php** on line **216**

Institution

 TECHNICAL UNIVERSITY OF LIBEREC
www.tul.cz

Technical University of Liberec

Challenge

This technology was invented as a response to antibacterial resistance and the problems resistant bacteria pose in hospitals. Our scientists invented a nanolayer that eliminates this bacteria and can be applied on almost any material. It also eliminates viruses and fungi.

Description

Basis of this technology is a sol (solution) that is applied on degreased surface, polymerized thermally at a temperature of 80 to 180 ° C for 30 minutes to 6 hours or by photoinitiated polymerization for 1 second to 3 hours. After this, the invisible layer protects the material for several months against bacteria, viruses and fungi. Exact length of protection depends on type of surface and effects the surface is exposed to. The nanolayer is harmless to health.

Commercial opportunity

The technology can be used on any surface we wish to protect against bacteria, viruses and fungi. It can be implemented into production. A company can apply the nanocoating during production and subsequently sell its products already protected. Another option is to apply the nanocoating onto surfaces in public space or hospitals the same way disinfection works.