



A TRUE SMART SUSTAINABLE COATING WITH LONG SERVICE LIFE

Flora Coatings has invented and globally patented an environmentally and user friendly, transparent, multifunctional, flexible coating called **INVESIL®**. This thin, ready to use coating composition consists of in-situ generated nanosilver, tantalum and zirconium nanoparticles that impart multifunctional characteristics to the coating. A significant advantage of this technology is that it produces a liquid precursor that could be applied in ambient conditions and hardens without the need of external heating or curing procedures. Depending on ambient conditions, applied coating is ready to touch in an hour and completely dries overnight (or in 12 hours). The liquid coating on application could potentially kill pathogens on immediate contact or trap microbes in solidified coating surface. The solid coating develops an impervious barrier against pathogen attachment and prosperity.

The **INVESIL®** coating surface is protected from most pathogens including viruses. The coating has been tested at multiple levels including in-house testing, 3rd party ASTM verified laboratory, US Navy (under DTRA), US Army (under DTRA) and leading commercial companies.

The **INVESIL®** has been extensively tested and qualified per aviation specifications following ASTM for properties like abrasion resistance (ASTM D4060-14, Taber), flexibility (ASTM D522), impact resistance (ASTM D2794), adhesion (ASTM D3359-17), mar resistance (ASTM D5402), chemical resistance (ASTM D4541-17 & ASTM D1308), UV resistance (ASTM G155) and chipping resistance (ASTM D3170). **INVESIL®** is high temperature resistant and can act as flame retardant coating (as per Boeing's BSS tests methods) for the coated substrates.

INVESIL® coating possesses significantly high chemical resistance against conventionally used household cleaners and disinfectants such as bleach solutions etc. (ASTM D1308). The repeated use of such cleaning chemicals on **INVESIL®** will not affect the coating's service life. Depending on the usage, single application of **INVESIL®** coating on surfaces could last between six months to a year before requirement of another application. Unlike other commercial coatings, **INVESIL®** does not contain dispersed antimicrobial agents in polymer paint like network. Instead, the entire backbone chemistry of **INVESIL®** acts as broad-spectrum antimicrobial agent against wide variety of invasive pathogens. In an event of scratch or surface damages, **INVESIL®** can continue providing necessary protection against tactile ramifications. In-fact, on exfoliation of coating surface during service deemed to expose antimicrobial agents beneath the surface layers to provide extended protection.

INVESIL® adheres strongly to wide variety of substrates including metals, fabrics, plastics, paints, concrete etc., and can be used as a standalone coating or on the top of the existing painted surfaces. **INVESIL®** is optically transparent, does not hide the original appearance of the surface.

INVESIL® is available in 1 kg, 5kg and 15 kg drums. The liquid coating can be applied on surfaces using conventional painting methods such as spraying, fogging, dipping, rollers, wipes etc.