A PERIODIC PUBLICATION HIGHLIGHTING THE MERITS OF VINYL PERFORMANCE PRODUCTS

# FOCUS on Healthcare Surface Disinfection

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## HEALTHCARE SURFACE DISINFECTION FOR THE REAL WORLD

The upholstery materials preferred for non-critical furniture applications in healthcare settings have certain characteristics in common. In addition to being available in a broad palette of pleasing colors and offering a soft feel for comfort and warmth, materials must meet a high bar for performance in service. For the purposes of this discussion, "service" is the capability to withstand the required disinfection protocols of good environmental cleaning practices in healthcare.

In recognition of this, coated fabric manufacturers publish their own Instructions For Use that outline proper care and cleaning to avoid damage. Practically speaking, however, these recommended safeguards have their limitations. In the real world, cleaning crews may not perform the steps as written.

To align upholstery manufacturers' surface cleaning guidance with real world healthcare practices and typically used cleaners and disinfectants, the industry, through the harmonized efforts of CFFA and the Association for Contract Textiles (ACT), now have standard test methods for assessing the effect on a coated material of three common disinfectant cleaners. CFFA developed CFFA-100, "Accelerated Exposure to Disinfectants."[1]

CFFA's test method outlines how to clean fabric samples with Clorox Healthcare Hydrogen Peroxide Cleaner Disinfectant Wipes, VIREX® II 256 diluted to one part to 256 parts water, and Clorox Healthcare Bleach Germicidal Wipes. Once the specimens are cleaned and visually examined for discoloration (0.5 Delta E is an acceptable deviation) or change in gloss, the final step is flexing the fabric by hand to check for cracks, peeling or increase in hardness.

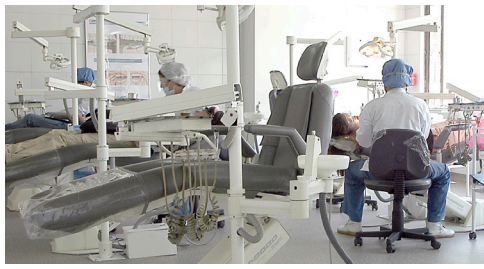
### THE ROLE OF VINYL UPHOLSTERY IN HEALTHCARE

Environmental cleaning not only reduces the number and amount of infectious agents present on surfaces, but also removes routes of transfer of microorganisms from one person or object to another. The elimination of surface soil and bacteria on non-critical furniture is fundamental in controlling healthcare-associated infections (HAIs), and thorough cleaning must occur before disinfection can begin. For this reason, vinyl – a material inherently resistant to bacterial growth – is the ideal solution for specifiers working with these non-critical applications.

Non-critical applications include seating, tables, carts, storage and furniture found in waiting rooms and lobbies. These items typically come in contact with intact skin but not mucous membranes.

Vinyl is inherently resistant to bacterial growth for several reasons. Chief among them are that vinyl upholstery is:

- **Impermeable to moisture** and provides a fluid barrier for the furniture's inner cushion



- **Wear resistant** and avoids the degradation of scuffs, scratches and cracking
- **Minimally textured**, if at all, promoting ease of cleaning and disinfection, and
- **Stain resistant and highly cleanable** without aggressive scrubbing.

All of these attributes in combination can simplify cleaning methods for hospital service departments.

## CLEANING PRODUCTS AND COATED FABRICS

The U.S. Centers for Disease Control and Prevention (CDC) establishes evidence-based guidelines[2] for the cleaning and disinfection of the healthcare environment and everything in it. The agency uses the Spaulding Classification System to determine the level of intensity required to clean a particular surface based on infection risk.

Non-critical applications can be disinfected using "low-level" cleaning protocols, according to the CDC. The U.S. Environmental Protection Agency (EPA) registers the hospital-grade germicides it has determined, through testing, to be effective on each type of surface.[3]

Designers know that cleaning components affect all coated fabrics to varying degrees depending on the chemical resistance properties of those materials. Even hospital-grade vinyl has the potential to be compromised by disinfectants, and if that occurs, the damaged surfaces open up potential harbor points for microbial growth.

When talking with a coated fabric manufacturer's representative, therefore, it's important to understand the degree to which a selection will resist damage from a broad spectrum of typical EPA-registered disinfectants to avoid product failure. The new CFFA test method gives that conversation a foundation it has not had up to now.

[1] **CFFA 100: Accelerated Exposure to Disinfectants, page 7-8 of CFFA Standard Test Methods, 9th edition**
http://www.cffaperformanceproducts.org/cffa-includes/pdfs/STMPamphlet.pdf

[2] **CDC Guidelines for Disinfection and Sterilization in Healthcare Facilities, 2008**
http://www.cdc.gov/hicpac/Disinfection_Sterilization/2_approach.html

[3] **Selected EPA-Registered Disinfectants**
https://www.epa.gov/pesticide-registration/selected-epa-registered-disinfectants

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