

Background

In light of the unprecedented COVID-19 pandemic that is sweeping many countries around the world, many facilities have a renewed interest in surface disinfection, including floor coverings. While hospitals and healthcare facilities routinely follow infectious control and disinfection guidelines, this is likely uncharted territory for commercial and residential facilities.

This technical bulletin is intended to provide guidance on disinfecting procedures, including compatible disinfecting chemicals and proper dilution ratios based on relevant

chemical resistance testing. The provided information is publicly available and fact-based information from the Center for Disease Control and Prevention (CDC), the Center for Health Design (CHD), the Environmental Protection Agency (EPA) and the Facility Guidelines Institute (FGI). As such, this information is subject to continuous improvement and revision – the current guidelines and documents available from these organizations supersede any documents and guidelines referenced herein.

General Precautions

Any damage to floor covering or other property caused by improper, incompatible or incorrectly used cleaning chemicals, as well as resulting health issues, will not be covered under warranty. As with all chemicals, ensure that all hazardous information, including associated Safety Data Sheets (SDS), are read, understood and followed. Wear proper Personal Protective Equipment (PPE) when

handling chemicals and avoid exposure to skin or eyes and ingestion at all costs. Please review individual warranty documents carefully prior to use for more information regarding warranty coverages. This bulletin is subject to change - please visit avaflor.com or contact the AVA technical department for the most current version.

Understanding Common Terms

When discussing cleaning, the CDC Guideline for Disinfection and Sterilization in Healthcare Facilities provides the following definitions for some common terms:

1. **Cleaning:** Removal, usually with detergent and water, of adherent visible soil, blood, protein substances, microorganisms and other debris from the surfaces. Cleaning does not always kill microorganisms, but removing them limits exposure and reduces the risk of spreading infection.
2. **Sanitizing:** A process that reduces the number of bacterial contaminants to safe levels as judged by public health requirements. Sanitizing does not clean surfaces and should only be performed following cleaning.
3. **Disinfecting:** Chemical destruction of microorganisms, pathogenic or otherwise. Disinfection does not always clean surfaces or physically remove microorganisms but disinfecting after cleaning can further reduce the

risk of spreading infection.

4. **Sterilizing:** A validated process used to render a product free of all forms of viable microorganisms. Sterilization is generally only required for objects that will come into direct contact with bodily fluids.

For the purposes of this technical bulletin, we will be primarily focusing on removing and destroying microorganisms through cleaning and disinfecting AVA floor covering products.

Cleaning Guidelines

AVA products do not sponsor organic growth, including the growth of microorganisms, and are inherently inconducive to the spread of infection. Furthermore, they are incredibly easy to clean with readily-available pH neutral floor cleaners, which will remove microorganisms, organic matter, surface stains, dirt accumulation and other foreign matter that may interfere with surface disinfection.

With this in mind, maintenance is a crucial first step in any disinfection process. All AVA products should be thoroughly cleaned following the associated Maintenance Guide, followed by a thorough rinsing with clean potable water, to remove as much foreign material from the surface of the flooring as possible. Doing so will greatly improve the efficacy of disinfection. For more detailed information on routine and daily maintenance for AVA products, please refer to the relevant maintenance instructions.

Disinfection Guidelines

Once flooring is cleaned, additional disinfecting techniques and procedures may be requested or required in order to ensure that spaces are safe, clean and free from infectious disease. The following is some general guidance for Healthcare, Commercial and Residential spaces that require disinfection.

The disinfection procedures in healthcare environments are typically regulated by four main sources:

1. **The CDC Guideline for Disinfection and Sterilization in Healthcare Facilities (2008)**, which references EPA's list of registered disinfection chemicals and disinfection instructions.
2. **The FGI Guidelines for Design & Construction (2018)**, which provides separate guidelines for hospitals, outpatient facilities and residential healthcare facilities. Additionally, it includes design guidelines related to Infectious Control and the CHD SRA toolkit.
3. **The CHD Safety Risk Assessment (SRA) Toolkit (2020)**, which helps facilities identify latent risks related to infection in order to mitigate them.
4. **CHD Design Strategies - Environmental Surfaces & HAIs (2019)**, intended to help limit Healthcare-Associated Infections (HAIs) through proper environmental surface selection and cleaning processes. Includes specific guidance for flooring materials.

According to these guidelines, there are three levels of disinfection:

1. **High-Level:** Requires the use of strong disinfectants, such as glutaraldehyde and other chemical sterilant. These are intended for critical

and semi-critical environmental surfaces, not floor covering.

2. **Intermediate-Level:** Requires the use of EPA-registered, tuberculocidal disinfectants. These are intended for semi-critical and noncritical environmental surfaces, especially that come into direct contact with skin.
3. **Low-Level:** Requires the use of EPA-registered disinfectants, but they do not need to be tuberculocidal. These are intended for non-critical environmental surfaces, like floor covering.

Since floor covering is considered a non-critical environmental surface within healthcare facilities, only an EPA-registered low-level disinfectant is required to disinfect AVA products. Healthcare facilities typically have EPA-registered disinfectants readily available through a pre-approved vendor. Many of these disinfectants are quaternary disinfectants that have a pH between 6 and 10.5 - these products are generally safe for use on AVA products. The following disinfectants are approved for use:

Approved Disinfectant Cleaners

- Diversey's Virex II 256 Disinfectant
- Eco-Lab's Multi-Purpose Disinfectant Cleaner
- Spartan's HDQ Neutral
- Spartan's Super HDQ
- XL North's Vital Oxide

There are several other products that are EPA-registered disinfectants – in fact, new products are added to the EPA's registered list routinely. As such, if you intend to disinfect AVA products with a disinfectant that is not on this list, but is otherwise registered and approved, be sure to follow all of the disinfectant manufacturer's instructions regarding dilution, mixing and application. Be sure to test the disinfectant solution on an uninstalled piece of flooring material to confirm that the disinfectant will not discolor, damage or attack the surface of the flooring material. Be sure to check for loss of sheen or any other subtle changes in appearance as well.

In addition to commercially available disinfectant solutions, AVA products can also be disinfected with a solution of clean, cool potable water and up to 10% Hydrogen Peroxide or up to 10% Sodium Hypochlorite (bleach). Ensure areas that are treated with these chemicals

are rinsed with clean, cool potable water following initial application in order to remove any remaining cleaning solution and residue.

Residential Disinfection

Residential areas can be disinfected using any of the aforementioned cleaning products and chemicals, ensuring all of the aforementioned and relevant guidelines are followed. Alternately, a residential steam cleaner designed for use with resilient flooring products can be used with AVA HPC or HDC products. Be sure to use soft cleaning heads and ensure cleaning heads are routinely cleaned and replaced appropriately.

The efficacy of steam cleaners, especially with regards to germs and HAIs, has panned experts - the primary concern is whether laboratory results translate to the field. At the very least, steam cleaning can help clean the floor and help neutralize microbes and pathogens. However, be aware that prolonged exposure to excessive heat can damage AVA materials - do not leave steam cleaners running and stationary on AVA materials at any time.

Summary

In general, AVA products won't contribute to the spread of infectious diseases on their own - only poor cleaning and disinfecting practices will. As such, if the cleaning and disinfecting guidelines outlined in this technical bulletin and the support product maintenance guides are followed, AVA products will provide an easy to disinfect surface that is not susceptible to most, if not all, disinfecting cleaners and chemicals. This will enable healthcare, commercial and residential facilities to adequately prevent the spread of germs and infectious diseases.

**For additional information, please consult the associated product technical information or contact the AVA technical department:
1.800.861.5292 - support@avaflor.com**