

Compatibility study of anti-viral disinfectants (Diversey Hygiene Company) with ATI Decorative Laminate



Background

A decorative laminate from ATI was tested for compatibility with Oxivir 1, Oxivir Five 16, Oxivir TB, Avert, Virex Plus, and Virex TB. Wipe testing was performed on with Oxivir 1, Oxivir TB, and Avert while soak tests were performed on solutions of Oxivir Five 16, Virex Plus, and Virex TB. Visual assessment was used to evaluate compatibility. (Substrate pictured on left.)

Test Method

Two different testing regimes are used, one for wipes and another for disinfectant solutions. The method for wipes is simply to wipe the surface 250 times and assess. Solution tests are expose the surface to RTU strength product for 20 minutes, subsequently wiping the surface free of liquid and allowing to air dry for 5 minutes and repeating for 10 cycles for a total

exposure time of 200 minutes. The second solution test soaks a coupon of each substrate in RTU strength solution for 250 minutes. Pictures and visual assessment are used evaluate.




	Wipe Test	Soak Test
Materials and Apparatus	<ul style="list-style-type: none"> • Clear packing tape • Digital camera • 4 surface samples; EOS Clay Tile, EOS Brown Tile, EOS Gray Stone, and EOS Brown Stone. • 250 each of Oxivir 1, Avert, and Oxivir TB wipes 	<ul style="list-style-type: none"> • 2-150 ml beaker • Paper towels • Digital camera • 1 surface sample; ATI Decorative Surface. • 200 ml of RTU strength Virex Plus, Virex TB, and Oxivir Five 16
Test Protocol	<ol style="list-style-type: none"> 1. Plastic sample preparation <ul style="list-style-type: none"> • Prepare one of each surface for each wipe type being tested, ensure minimum surface size is at least 1" x 1" or larger. • Cover half of each sample surface with clear packing tape. 2. Exposure to liquid disinfectant <ul style="list-style-type: none"> • Wipe uncovered half with saturated wipe. • Allow to air dry. • Repeat 250 times. • After completion, rinse each sample with tap water and remove excess liquid with paper towel. • Allow to air dry. • Take photo after drying. 	<ol style="list-style-type: none"> 1. Plastic sample preparation <ul style="list-style-type: none"> • Prepare test substrate samples that are at least 1" x 1". • One coupon for each substrate and for each test solution. 2. Exposure to liquid disinfectant <ul style="list-style-type: none"> • Place 1 coupon of each substrate type in a standing position into a 250mL beaker. • Add liquid disinfectant to the glass beaker until about coupon is completely submerged. • Remove coupons after 250 minutes. • After completion, rinse each sample with tap water and remove excess liquid with paper towel. • Allow to air dry. • Take photo after drying.

Evaluation Process




1. Characterization of surface damage
 - Visual assessment used the following scale:

Damage Rating (1-4)	Description
0	No damage
1	Slight damage
2	Definite surface alteration
3	Surface is altered to the point of surface damage
4	Severe damage, surface degradation or drastic change from initial color and structure

Wipe Test Results

Solution	Picture of Results	Damage Rating
Oxivir TB		0
Oxivir 1		0
Avert		0

Soak Test Results

Solution	Picture of Results	Damage Rating
Virex Plus		0
Oxivir Five 16		0
Virex TB		0

Overall, Fusion products should have no issues with any Diversey disinfectant products. Many of these disinfectants are now listed by the EPA to use against SARS-CoV-2 (the virus that causes COVID-19). [Follow this link to the EPA list.](#)