

Fellowes®

AIR PURIFIERS

Virus Testing Update

March, 2021

The screenshot shows the top portion of the Fellowes website. At the top left is the 'AERAMAX® PRO' logo. To its right is a navigation menu with links for 'Healthy Air', 'Technology', 'Products', 'Services', 'Your Space', 'Resources', and a 'Request Info' button. Below the navigation is a main heading 'MAXIMUM VIRUS PROTECTION'. Underneath this heading is a paragraph: 'AeraMax® Pro air purifiers remove 99.99% of all airborne contaminants, including coronaviruses, using a combination of smart and integrated technologies – only from Fellowes.' Below the text are two buttons: 'Learn More' and 'View Products'. The central focus is a white AeraMax Pro air purifier unit. Surrounding the unit are several blue, spiky virus-like particles. On the right side of the purifier, there is an orange callout box with white text that reads '99.99% EFFECTIVE AGAINST CORONAVIRUS'. The background of the entire page is a dark blue color.

Coronavirus Testing Summary

- Fellowes partnered with an independent and accredited laboratory to analyze the airborne reduction of coronavirus 229E when using Fellowes AeraMax Pro Air Purifiers
- 5 tests were done using a combination of AeraMax Pro AM2, AM3 and AM4 models
- Testing was conducted using a surrogate coronavirus (Human Coronavirus 229E)
- This was aerosolized in a 20m³ test chamber (similar to our H1N1 testing)
- Samples were collected and analyzed after a 1 hour period
- The full test methodology is available along with test reports from the lab

Test Results

HCoV 229E Killing Rate Test					
NO#	Model	Filters	Antiviral Activity Rate (%)	Report file	Test Reference Specification
1	AM2	Hybrid Filter	99.99%/1H	WP-20116865-JC-01En	Technical specification for disinfection(2002)
2	AM3/S PC	Pre-filter+Carbon filter+HEPA filter	99.99%/1H	WP-20116865-JC-02En	
3	AM3/S PC	Pre-filter+Hybrid Filter	99.99%/1H	WP-20116865-JC-03En	
4	AM4/S PC	Pre-filter+Carbon filter+HEPA filter	99.99%/1H	WP-20116865-JC-04En	
5	AM4/S PC	Pre-filter+Hybrid Filter	99.99%/1H	WP-20116865-JC-05En	

The above is a summary of all 5 test reports. Where we are asked to provide evidence, the PDF reports are available.

Approved Claim Statement

*Fellowes AeraMax Pro Air Purifiers were demonstrated to be effective in reducing aerosolized airborne concentration of Human Coronavirus 229E in a test chamber reaching **99.99%** airborne reduction within 1 hour of operation*.*

** Based on Independent Laboratory Testing.*





Testing FAQs

What is 229E and why did we use it?

- It causes the common cold, but it has similar characteristics. Enveloped, positive-sense single-stranded RNA virus which is how Sars-CoV-2 is described. ([CDC LINK](#))
- About the size comparison, “Under the electron microscope, coronavirus virions are spherical or pleomorphic. Coronavirus particles are enveloped, about 80–120 nm in diameter” (source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7204879/>)

Why did we not use Sars-CoV-2?

- It is not yet possible for labs to aerosolize Sars-CoV-2 for airborne testing. Some manufacturers are using a surface approach to test against Sars-CoV-2 such as ionization companies, but we have not seen anyone yet make this airborne. Labs are still telling us this is not ethical or possible in the current climate.

Can we claim we capture COVID-19?

- No. Without specific testing using the actual virus strain, we cannot make a direct COVID-19 claim.

Where was the testing conducted?


- The testing was done in an independent and certified facility in Shanghai (WEIPU).
- The lab has multiple accreditations and certifications including CNAS and CMA.
- CNAS demonstrates that the lab is accredited in accordance with ISO/IEC 17025. “ISO/IEC 17025 enables laboratories to demonstrate that they operate competently and generate valid results, thereby promoting confidence in their work both nationally and around the world.” (Source: [ISO.org](#))
- The lab works with multiple international clients such as Bayer, BASF, Unilever and 3M.

Why is the claim after 1 hour?

- The reason the claim is after 1 hour is because this was the pre-agreed period of time left between baseline measurement and removal measurement. This doesn't mean it took the full hour, but within the 1 hour period the airborne level was reduced by 99.99%

Our Test Reports

5 Single Machine Test Reports





Test Report

Report No. : WP-20116865-JC-02En

Sample Origin : Customer Sample Delivery

Client : Fellowes Business Machines (Suzhou) Co.,Ltd
No.1,Shilin Road, Suzhou New District,Jiangsu
Address: 215151,P.R. China

Shanghai WEIPU Chemical Technology Service Co., Ltd

Report No. : WP-20116865-JC-02En Page(s) : 2 / 3

Test Method and Apparatus:

Test Items	Test method	Apparatus
antiviral activity HCoV-229E	Technical specification for disinfection (2002)	Biosafety Cabinet

Test Results:

Name of virus	HCoV-229E Vero-E6		
Sample name	AM3/S PC		
Time	NO	lgN ₀ (lgTCID ₅₀ /m ³)	lgN _t (lgTCID ₅₀ /m ³)
1h	1	5.51	<1.50
	2	5.55	<1.50
	3	5.64	<1.50
Average Value of lgTCID ₅₀ /m ³		5.56	<1.50
Total virus lgTCID ₅₀ /m ³		3.63*10 ⁵	<31.6
Antiviral Activity Value		>4.06	
Antiviral Activity Rate (%)		>99.99	

Note: Test condition:110V, 60HZ

End of the Page

1-page Testing Summary

Test Summary

The following products have been tested by Shanghai WEIPU Chemical Technology Service Co., Ltd as outlined in report(s): WP-20116865-JC-01En; WP-20116865-JC-02En; WP-20116865-JC-03En; WP-20116865-JC-04En; WP-20116865-JC-05En

Product Description	AeraMax Pro
Manufacturer	Fellowes
Test specification	Technical specification for disinfection (2002) 2.1.3
Test Method	Determination of removal efficiency of HCoV 229E following aerosolization of the virus into a 20m ³ environmental test chamber. The device operated at max speed and ionizer ON during test.
Additional SKUs	AeraMax Pro

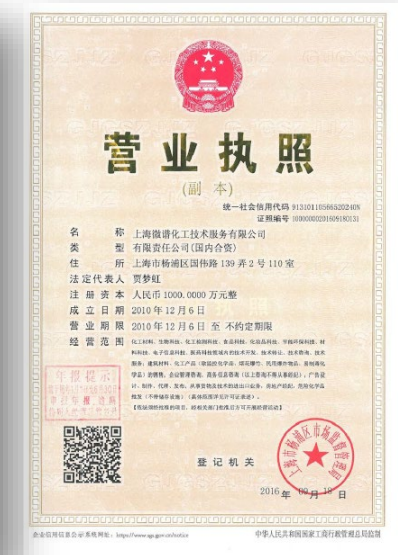
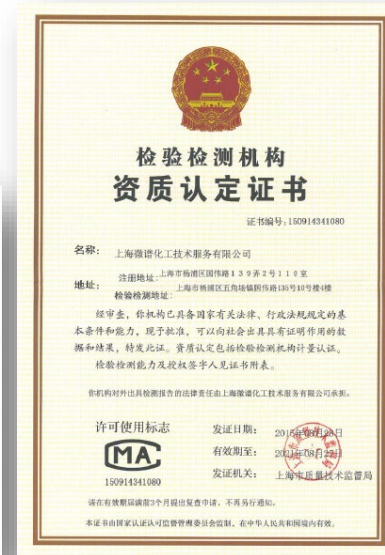
DATA


The below table shown are the test summary based on the tested products with the different installed filters.

Report NO.	Product	With the Filters	Antiviral Activity Rate (%)
WP-20116865-JC-01En	AeraMax Pro AM2	Hybrid Filter	>99.99%
WP-20116865-JC-02En	AeraMax Pro AM3/S PC	Pre-filter+Carbonfilter+HEPA filter	>99.99%
WP-20116865-JC-03En	AeraMax Pro AM3/S PC	Pre-filter+Hybrid Filter	>99.99%
WP-20116865-JC-04En	AeraMax Pro AM4/S PC	Pre-filter+Carbonfilter+HEPA filter	>99.99%
WP-20116865-JC-05En	AeraMax Pro AM4/S PC	Pre-filter+Hybrid Filter	>99.99%

Shanghai WEIPU Chemical Technology Service Co.,Ltd
Building 9, building 10, building 18, Yangpu Urban Industrial Part, Lane 139, Guowei Road,
Yangpu District, Shanghai (200438) www.weipugroup.com

Laboratory Accreditations





“ISO/IEC 17025 enables laboratories to demonstrate that they operate competently and generate valid results, thereby promoting confidence in their work both nationally and around the world.”

<https://www.iso.org/ISO-IEC-17025-testing-and-calibration-laboratories.html>

FOR MORE INFORMATION CONTACT:

Peter Fitzpatrick

O-216-485-3569

M-440-724-3565

pfitzpatrick@districtwon.com

Danny Chalhoub

O-216-485-3558

dchalhoub@districtwon.com

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