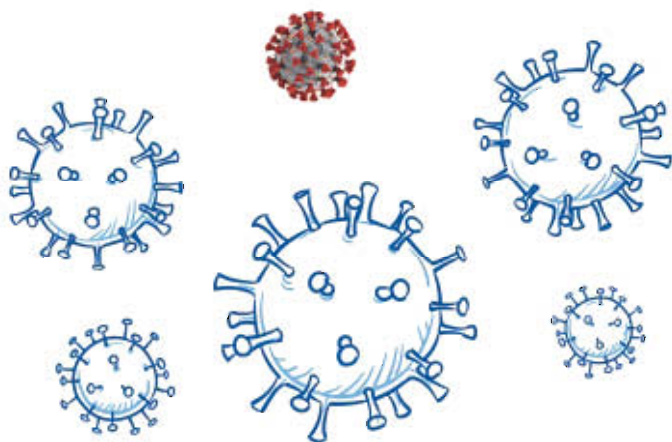




Introducing FRESH® Air Filter PrimeFil™ Microbicidal Air Filter



 CARE for
COVID-19

PrimeFil™ Microbicidal Air Filter



Bactericidal performance assays have shown that the Fresh® air filtration filters can disinfect >99.99% of virus and bacteria conducted and certificated by Guangdong Detection Center of Microbiology. The same antibacterial activity results of killing *Candida albicans* and *Staphylococcus aureus* have been detected and confirmed by SGS-CSTC Standards Technical Services Co., Ltd. China.

The Fresh® air filtration filters are made of a full-body germicidal material to prevent viral, fungal and bacterial airborne particles and aerosols from causing contagion in IAQ and HVAC system. The high efficiency air filtration media readily remove particles at the range between 0.1µm and 10µm within which the highly contagious droplets and aerosols must be neutralized within 20 minutes contact time.

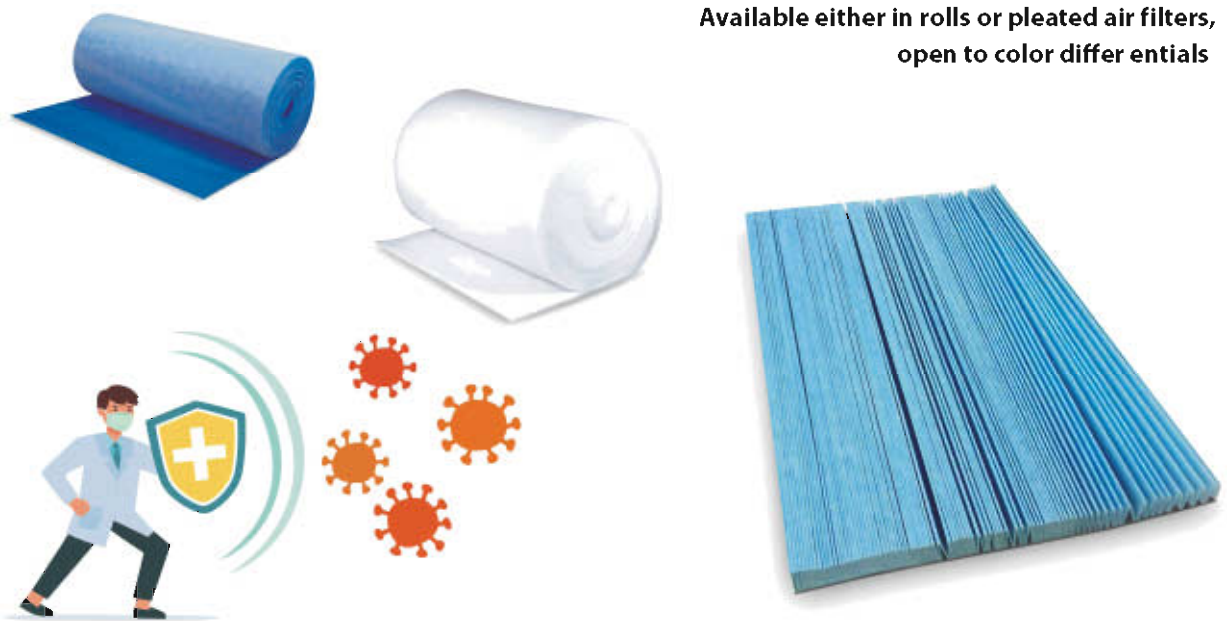


World Health Organization

The Latest COVID-19 virus studies guided in World Health Organization (WHO) have identified that stopping airborne virus adhered aerosols and particles transmission are critical controlling and prevention in COVID-19.

Once the filters capture the virus, it is neutralized through the mechanism based on metal ions and natural herbal extracts which prevents disease transmission and air contaminations. The virus interacts with the metal ions and natural herbal extracts followed by a biological chain reactions that it causes viral cell layers rupture, protein denaturation and nucleotide malfunctions. Under these circumstances any of the pathogens can cause less health and safety issues to human.

A New Generation of Air Filter that Capture and Destruct Virus and all Pathogens



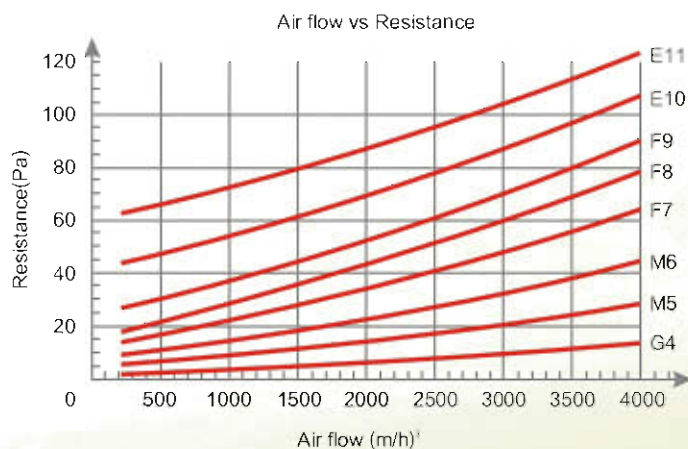
Available either in rolls or pleated air filters, open to color differentials

The Fresh® air filtration filters technology is a high efficiency air filtration media embedded with bactericidal technology.

Functions: The Fresh® air filtration products immediately exhibit virucidal, fungicidal, bactericidal properties as metal ions and natural herbal extracts are jointly destroy the viral, fungal and bacterial cells. The metal ions and natural herbal extracts can complementarily rupture the cell layers and expose the microbial cell vulnerable to antimicrobial materials, allowing the protein and nucleotide deactivation. Therefore, the pathogens of all kinds are neutralized in short contact time.

General Technical Parameters

- Filtration Class:** G4-E11 (EN779/EN1822)
- Filtration Efficiency:** up to 99%
- Resistance to temperature:** ≤ 60°C
- Humidity:** ≤ 100%RH
- Instantaneous temperature resistance:** ≤ 100°C




Dimension Availability (Basic dimensions, other can be customized)

Filtration Efficiency(%)	Nominal Size(W*H*D)(inch)	Actual(W*H*D)(mm)
Up to ePM1@85% or 95% (ASHRAE52.1)	12*24*2	287*592*46
	24*24*2	592*592*46
	12*24*2	305*610*46
	24*24*2	610*610*46

PrimeFil™ Microbicidal Air Filter

3rd Party Pathogens Disinfection test reports



Disinfection rate up to 99.9%
within only 20min!!!!

Test Report QZF20-012398-01 2020.04.20

Sample Description:
 Specimen No. 1 SGS Sample ID: QZF20-012398-001 Description: Fiber

Test Method:
 Test Required: Antimicrobial Assessment for the submitted sample
 Test Method: GB/T 20944.2-2007 Textiles-Evaluation for antibacterial activity-Part 2: Absorption method

Test Organism: *Staphylococcus aureus* ATCC 6538 *Candida albicans* ATCC 10231




Concentration of medium (CFU/mL)	2.4x10 ⁶	1.5x10 ⁶
F	2.9	/
Q (CFU)	4.4x10 ⁷	9.9x10 ⁴
Q0 (CFU)	4.8x10 ⁴	3.6x10 ⁴
T0 (CFU)	7.1x10 ³	6.5x10 ³
A: antibacterial activity value	3.7	1.2
Percentage of antibacterial activity (%)	>99	>99

Notes:
 1. Q: The number of bacteria obtained from the control sample after 24h incubation (CFU);
 2. Q0: The number of bacteria obtained from the control sample after immediate incubation (CFU);
 3. F: The growth value on the control sample; $F = \log(Q/Q_0)$;
 4. T: The number of bacteria obtained from the antimicrobial treated sample after 24 h incubation (CFU);
 5. The control sample is 100% cotton fabric, provided by SGS lab;
 6. The sterilization method was autoclave sterilization method (121°C, 15min);
 7. The tested sample incubation time was 24h;
 8. *According to client's requirement, test item was tested with reference to GB/T 20944.2-2007, and the test item's equipment not included in the CNAS scope in our laboratory.

SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch
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PrimeFil™ Microbicidal Air Filter

3rd Party Pathogens Disinfection test reports






广东省微生物分析检测中心
 GUANGDONG DETECTION CENTER OF MICROBIOLOGY
 分析检测结果
 ANALYSIS AND TEST RESULTS

报告编号 (Report No.): 2020PM185538-002

检测时间 Action concentration and action time	测试微生物 The tested organism	对照组的细菌数 The number of bacteria in the control sample (cfu/片)	检测组的细菌数 The average number of bacteria in the test sample (cfu/片)	杀菌率 Sterilization rate (%)
原样 Original 20min	金黄色葡萄球菌 (<i>Staphylococcus aureus</i>) ATCC 6538	7.2x10 ⁷	<5	>99.99
	白色念珠菌 (<i>Candida albicans</i>) ATCC 10231	3.1x10 ⁷	6.6x10 ⁷	97.87

样品图片 sample picture



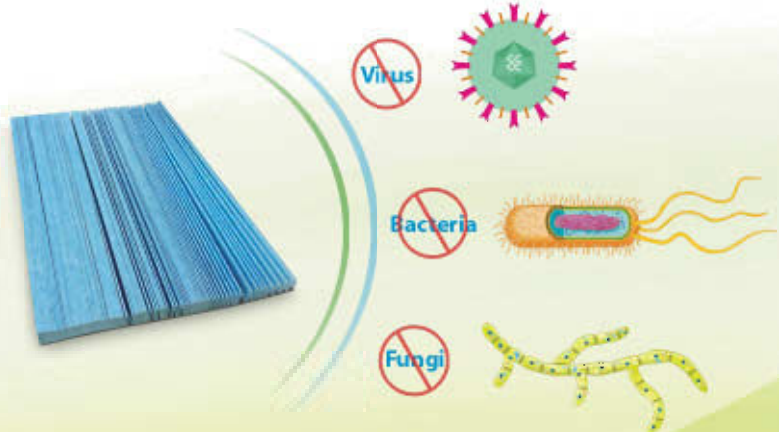
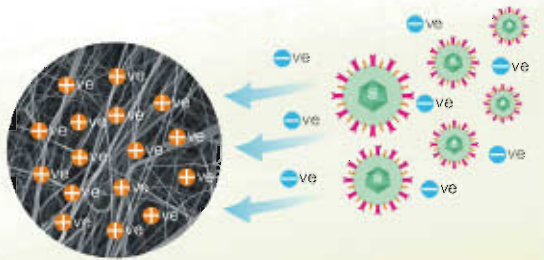
Disinfection rate up to 99.9%
within only 20min!!!!

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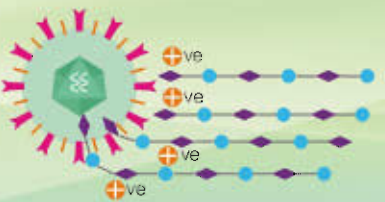
备注: 检测结果: 杀菌率>90%, 产品有杀菌作用。
 Remarks: Antibacterial effect evaluation: Sterilization rate>90%, the product has a bactericidal effect.

Principle of Air disinfection

Step 1 The positive charged disinfection filter matial absorbs negative charge virus.



Step 2 The metal ions and natural herbal extracts can complementarily rupture the cell layers and expose the microbial cell vulnerable to antimicrobial materials.



Step 3 The virus interacts with the metal ions and natural herbal extracts followed by a biological chain reactions that it causes viral protein denaturation and nucleotide malfunctions.



Step 4 The pathogens of all kinds are neutralized in short contact time.





Guangdong Fresh Filter Co.,Ltd (Known as Fresh Filter[®]) is a leading edge manufacturing company specialized in Air purification field since 2007, The company has developed to a multi-role business entity incorporated with product R&D, manufacture, sales and after sales services.

With more than a decade constant development in reaching technical breakthroughs, Fresh Filter has developed inflaming retarding multifunctional ceiling filters which meet EU standards and codes, Fresh Filter[®] also developed diverse EU standard filter products such as pre-filter, medium efficiency filter, HEPA filter, activated carbon cloth and filter products series, fiber glass(LH/PA), pocket filter, HEPA filter as well as medium efficiency filter panels. Fresh Filter[®] products are widely applied in coating production line, automobile, furniture coating booth, high-tech, electronic workshop, surgery operation ward and laboratories.

With a geographical transport network convenience in Danzao,Nanhai Foshan, where close to major Pearl River Delta deep sea ports, Fresh Filter has been expanding solid business worldwide, our product footprint have reached more than 55 countries world wide, such as, the U.S, U,K Japan, Germany, Spain, Swizerland, Italy, Netherlands, Australia, Poland, Russia, Singapore, India, U.A.E, Malaysia, Thailand, Philippines, Chile and etc. In domestic market, we have sales footprint among 23 provinces, 4 major mega cities, and 5 municipalities.

In the future, Fresh Filter[®] will strive to the vision “to build a cleaner world” .

With market demand driven concept and enhanced entrepreneur spirits to develop and deliver core technic centralized products to worldwide customers. A new era is on its way for Fresh Filter[®] to grow new business together with our global and domestic clients/ partners.

Excellent Quality Achieved from every step of strict process control.



• Advanced PMS[™] scanning



• In-house Lab/Cleanroom



• Hepa Paper Pleating



3rd Party Testing Certificates (Europe & Taiwan)



National Patents and Product Innovations



Quality and Product System Certificates



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