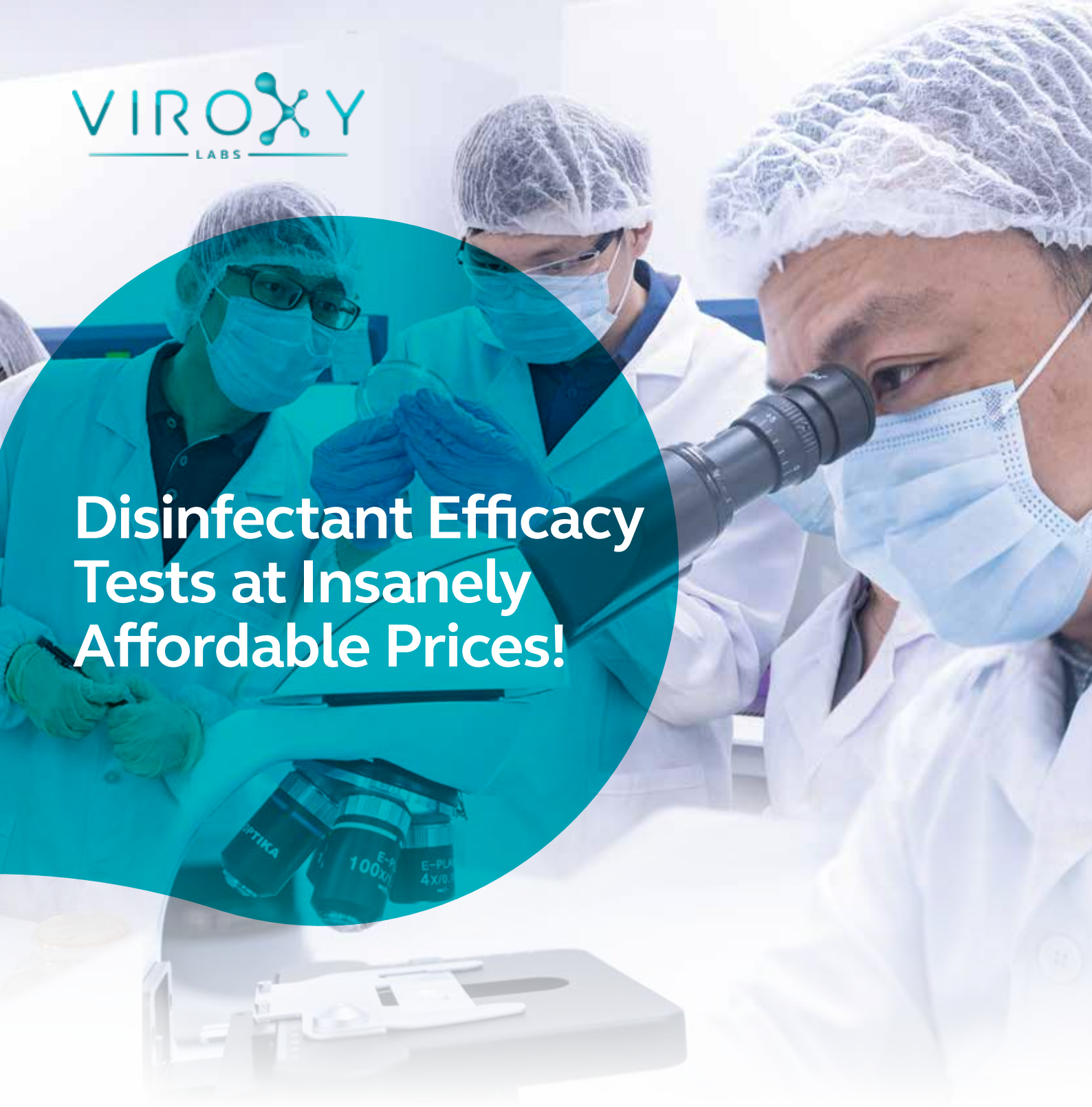
VIROXY LABS



Disinfectant Efficacy Tests at Insanely Affordable Prices!

- Invest the savings back into your business and develop even better products
- Acquire reliable results from an ISO/IEC 17025 accredited laboratory
- Get results fast and keep your business moving

Viroxy Sdn. Bhd. (1193371-A)
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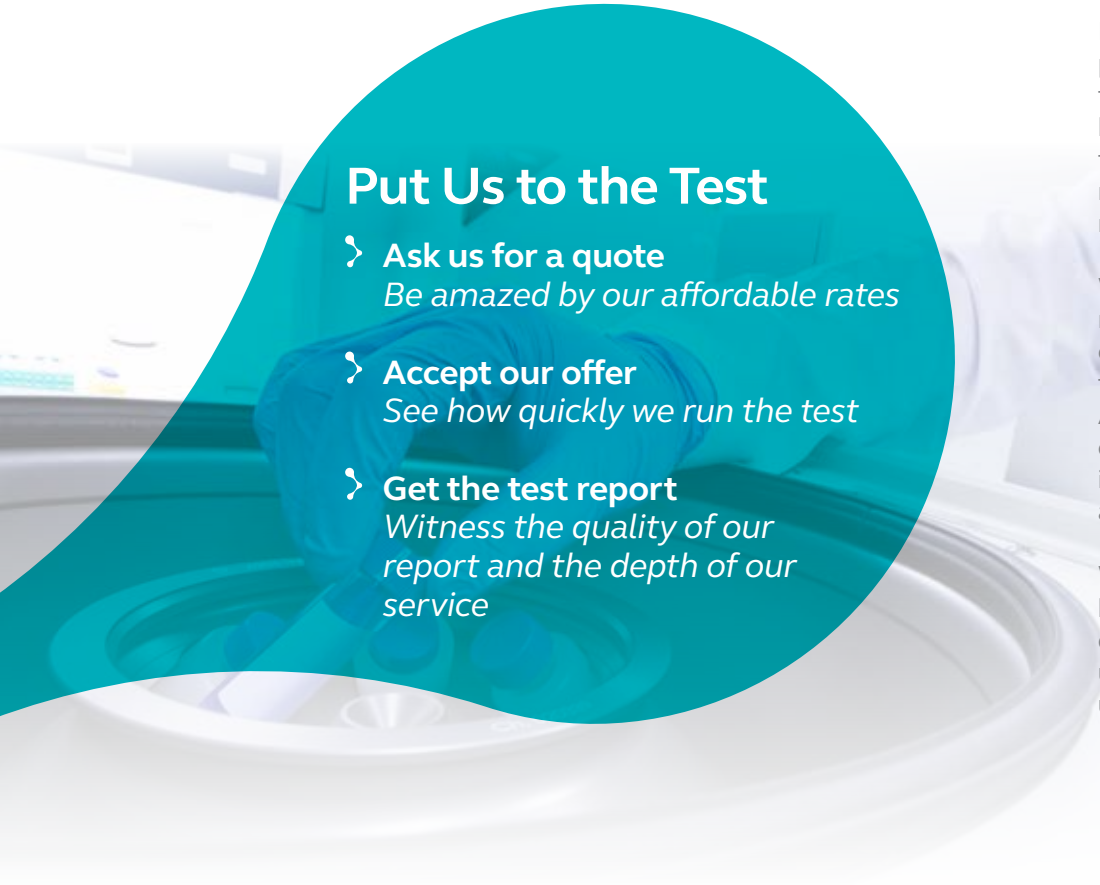
www.viroxylabs.com

Who Are We Anyway?

Viroxy Sdn. Bhd. is the shiny new thing making waves in the world of microbiological testing.

We are an ISO/IEC 17025 accredited laboratory located in the heart of Kuala Lumpur, Malaysia, with the aim of delivering exceptionally fast results at afforable rates. Especially disinfectant efficacy tests.



Put Us to the Test

- **Ask us for a quote**
  Be amazed by our affordable rates
- **Accept our offer**
  See how quickly we run the test
- **Get the test report**
  Witness the quality of our report and the depth of our service

Founded on 30 June 2016, Viroxy provides disinfectant efficacy testing services, sterility testing, bioburden testing, chemical testing and environmental monitoring services and product registration consultancy.

We are armed with on-site microbiology, chemistry, tissue culture and virology laboratories fitted with the latest equipment. And we are ready to run tests on close to 130 microorganisms including bacteria, fungi, viruses and spores.

Within a span of one year, we have poised ourselves to meet the demands of an impressive line-up of international clients while upholding high work standards.

How did we achieve this?

Sheer determination. Our crew of 13 staff acquired ISO/IEC 17025 accreditation with 11 European Norms under the scope within 10 months of incorporation and a further 11 norms in the next 5 months. More recently, we added EN 14476:2013+A1:2015 in October 2017, arriving at a total of 23 norms under the scope within just 16 short months of incorporation. And we are still working to add others.

Want to join other savvy manufacturers who have already tried our services? Call us at +60 (0)3 2630 8888

What is ISO/IEC 17025 Accreditation?

We've mentioned the accreditation exactly 4 times but what does it mean to you?

In short, ISO/IEC 17025 helps you:

- avoid getting your laboratory reports rejected by the notified body.
- avoid risking your investment by sending samples to laboratories with dubious track record.
- save time when tests are conducted with tried and tested methods endorsed by an independent third party.
- avoid wasting money on botched tests and expensive re-testing.

ISO/IEC 17025 is an important standard for calibration and testing laboratories worldwide to prove technical competency and capability in producing accurate results and calibration data. Testing laboratories must demonstrate the ability to achieve the following outcomes before they can be accredited:

1

Method verification

Method verification is determined by measuring repeatability and intermediate precision to demonstrate that validated test methods yield consistently accurate results when performed at the laboratory.

2

Interlaboratory comparison

The competency of each microbiologist with the laboratory is substantiated by the collective result of tests conducted within the same parameters by peers from other ISO/IEC 17025 accredited laboratories.

3

Measurement uncertainty

As no test result with a measurement component can be 100% accurate, a laboratory must be able to calculate the degree of uncertainty for each test.

4

Metrological traceability

Every laboratory equipment with measuring function affects the uncertainty of test result and as such must be calibrated periodically and the records retained. Without measurement traceability and verification by an independent body, a laboratory is free to make fraudulent claims.

9 Solid Reasons to Engage Viroxy

We are ISO/IEC 17025 accredited

Our laboratories are ISO/IEC 17025 accredited with 23 European Norms under the scope and we achieved this within just 16 months of incorporation. You don't have to worry about your results getting rejected by the notified body.

1

Our prices are among the lowest

We have the distinct advantage of offering world-class service at an affordable price due to our unique geographic location in Southeast Asia. We are confident our prices are lower than most of our competitors. Don't believe us? Ask for a quote today.

2

We deliver test results at high speed

Our processes are streamlined for better turnaround time and we process each request as soon as it hits our in-tray to prevent unnecessary queues. Our pledge is to deliver your request between 21 working days (for simple tests) and 60 days (for complex tests) from the day we receive your sample.

3

We are the first in Southeast Asia

Viroxy is the first ISO/IEC 17025 accredited laboratory in Southeast Asia offering comprehensive disinfectant efficacy tests according to the European Norms and we are considered as specialists by our clients.

4

We don't just focus on laboratory testing

As much as we'd like to focus solely on laboratory testing services, we think it would benefit our clients more if we shared our expertise in medical devices registration. By offering consultation services, we are able to provide a holistic solution to our clients.

5

We collaborate with our clients

Our correspondences with clients do not always start with a test request and end in a test report. When a result is not as expected by client, we try to explain the possible causes and offer advice to improve future results.

6

Largest inventory of test microorganisms

We are the first testing laboratory in Southeast Asia with a collection of almost 130 microorganisms ranging from bacteria and fungi to viruses and spores. If there is a test microorganism not available in our inventory, just let us know.

7

We also include provisional norms

In addition to approved and accepted European Norms, we also conduct tests according to provisional norms pending approval from relevant committees. Our clients can proceed with testing activities while a norm is awaiting approval, saving them time and minimising disruption.

8

We research beyond the standards

We run more than just tests. From time to time, we conduct independent researches and studies to find out if the methods outlined in the norms or standards yield similar results under different circumstances. These make for great case studies that help our clients immensely.

9

Disinfectant Efficacy Tests According to the European Norms

We run almost all the tests you need to prove the efficacy of your disinfectants.

Bactericidal Tests

1. EN 1040:2005

Quantitative suspension test for the evaluation of basic bactericidal activity of chemical disinfectants and antiseptics. (Dilution-neutralization Method)

Medical Area

2. EN 13727:2012+A2:2015

Quantitative suspension test for the evaluation of bactericidal activity in the medical area. (Dilution-neutralization Method, Modified Dilution-neutralization Method & Membrane Filtration Method)

3. EN 14561:2006

Quantitative carrier test for the evaluation of bactericidal activity for instruments used in the medical area.

Veterinary Area

4. EN 1656:2009

Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in the veterinary area. (Dilution-neutralization Method)

5. EN 14349:2012

Quantitative surface test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in the veterinary area on non-porous surfaces without mechanical action.

Food, Industrial, Domestic & Institutional Area

6. EN 1276:2009

Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas. (Dilution-neutralization Method)

7. EN 13697:2015

Quantitative non-porous surface test for the evaluation of bactericidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas.

Tuberculocidal & Mycobactericidal Tests

Medical Area

8. EN 14348:2005

Quantitative suspension test for the evaluation of mycobactericidal activity of chemical disinfectants in the medical area including instrument disinfectants.

9. EN 14563:2008

Quantitative carrier test for the evaluation of mycobactericidal or tuberculocidal activity of chemical disinfectants used for instruments in the medical area.

10. EN 14204:2012

Quantitative suspension test for the evaluation of mycobactericidal activity of chemical disinfectants and antiseptics used in the veterinary area. (Dilution-neutralization Method)

Yeasticidal & Fungicidal Tests

11. EN 1275:2005

Quantitative suspension test for the evaluation of basic fungicidal or basic yeasticidal activity of chemical disinfectants and antiseptics.
(Dilution-neutralization Method)

Medical Area

12. EN 13624:2013

Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity in the medical area.
(Dilution-neutralization Method, Modified Dilution-neutralization Method & Membrane Filtration Method)

13. EN 14562:2006

Quantitative carrier test for the evaluation of fungicidal or yeasticidal activity for instruments used in the medical area.

Veterinary Area

14. EN 1657:2005

Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity of chemical disinfectants and antiseptics used in the veterinary area.
(Dilution-neutralization Method)

15. EN 16438:2014

Quantitative surface test for the evaluation of fungicidal or yeasticidal activity of chemical disinfectants and antiseptics used in the veterinary area on non-porous surfaces without mechanical action.

Food, Industrial, Domestic & Institutional Area

16. EN 1650:2008+A1:2013

Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas.
(Dilution-neutralization Method)

17. EN 13697:2015

Quantitative non-porous surface test for the evaluation of fungicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas.

Virucidal Tests

Medical Area

18. EN 14476:2013+A1:2015

Quantitative suspension test for the evaluation of virucidal activity in the medical area.
(Quantal Tests)

Veterinary Area

19. EN 14675:2015

Quantitative suspension test for the evaluation of virucidal activity of chemical disinfectants and antiseptics used in the veterinary area.
(Quantal Tests)

Sporicidal Tests

Food, Industrial, Domestic & Institutional Area

20. EN 13704:2002

Quantitative suspension test for the evaluation of sporicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas.
(Dilution-neutralization Method)

Tests for Hand Hygiene Products

21. EN 1499:2013

Hygienic handwash

22. EN 1500:2013

Hygienic handrub

23. EN 12791:2016

Surgical hand disinfection

Others

24. EN 16615:2015

Quantitative test method for the evaluation of bactericidal and yeasticidal activity on non-porous surfaces with mechanical action employing wipes in the medical area (4-field test).

More than Tests

Whenever questions start forming in our minds, we carry out independent studies and publish the findings in our blog.

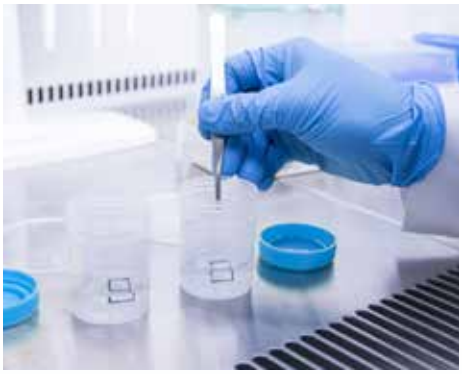
"How big a surface space can a disinfectant wipe disinfect?"

"Do disinfectants display different levels of efficacy when applied on different materials?"

19 September 2017

We Have Extended Our Disinfectant Efficacy Testing Scope to Include 23 ENs!

We now offer almost all disinfectant efficacy tests according to the European Norms under the scope of ISO/IEC 17025



30 June 2017

Suspension Test and Carrier Test for Disinfectants According to European Norms

Suspension and carrier tests are two significant test methods listed in EN 14885:2015 to determine if a disinfectant is effective.

Get hold of our findings the moment they're published

SIGN-UP NOW!

www.viroxylabs.com/viroxy-blog/

27 August 2017

Viroxy Internship Program - Fare Thee Well, Adina!

Viroxy inaugurated our first internship program in May 2017 and welcomed our first intern, Ms. Adina to a steep learning curve.

13 August 2017

New Team Member - Suhana

We recently brought another learned microbiologist into our fold to strengthen our team and serve you even better.

17 May 2017

Of Corruption, Greed and Tragedy

An entire nation suffered loss and misery when one man completely disregarded prevailing standards in infection control.

13 April 2017

The One Norm Every Manufacturer of Disinfectants in Europe Should Know - EN 14885:2015

Find out how EN 14885:2015 can help you make better decisions when testing your disinfectants.

The One Norm Every Manufacturer Of Disinfectants in Europe Should Know - EN 14885:2015

Find out how EN 14885:2015 can help you make better decisions when testing your disinfectants.

The primary purpose of a disinfectant is to reduce the number of microorganisms on an instrument or surface to render them safe for re-use. One of the reasons manufacturers of disinfectants advertise a long list of antimicrobial claims is to outnumber the claims of competitors and prove the superiority of their products. In medical settings however, these claims can be a matter of life and death and as such must be supported by independent laboratory tests.

In Europe, the process of qualifying a disinfectant intended for use in the area of human medicine, veterinary or food, industrial, domestic and institutional areas is guided by EN 14885:2015. At present, the standard is applicable to products for which activity is claimed against vegetative bacteria, bacterial spores, mycobacteria, yeasts, fungal spores and viruses including bacteriophages.

The norm lists basic laboratory tests chemical disinfectants must pass to validate antimicrobial claims by manufacturers. It includes test methods, specific test microorganisms, test conditions and log reduction requirements. To illustrate this better, let's take instrument disinfectants as an example.

Instrument disinfectants

According to EN 14885:2015, all instrument disinfectants intended for use in the medical area must pass the following bactericidal and yeasticidal activity tests to meet the minimum requirements:

- Bactericidal activity tests - EN 13727: Quantitative suspension test for the evaluation of bactericidal activity in the medical area (Phase 2, Step 1) and EN 14561: Quantitative carrier test for the evaluation of bactericidal activity for instruments used in the medical area (Phase 2, Step 2).
- Yeasticidal activity tests - EN 13624: Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity in the medical area (Phase 2 Step 1), EN 14562: Quantitative carrier test for the evaluation of fungicidal or yeasticidal activity for instruments used in the medical area (Phase 2, Step 2).

EN 14885:2015 further states that to pass EN 13727 (Phase 2, Step 1) suspension test, the test product must be tested against *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Enterococcus hirae* between the temperatures of 20°C (obligatory) and 70°C and *Enterococcus faecium* when the temperature is 40°C or higher. The product must demonstrate the ability to reduce the number of each type of microorganism by 100,000-fold known as 5-log reduction within 60 minutes in clean or dirty conditions. To simulate clean conditions, bovine serum albumin (BSA) is added to the suspension. BSA is a type of protein derived from cows and it is typically used as a standard protein in microbiological tests due to its stability. To simulate dirty conditions, BSA and sheep blood is added to the suspension.

In EN 14561 (Phase 2, Step 2), the test product is tested under the same conditions as mentioned previously using a glass slide as a carrier of test bacteria, which is why it is commonly known as a carrier test. Once again, the test product must demonstrate the ability to achieve 5-log reduction within 60 minutes or less at 20°C.

If the test product passes both these tests, it is accepted as active against all bacteria and as such entitled to make bactericidal claim. However, this single claim is not sufficient if the product is to be sold in the European Union. It must pass yeasticidal activity test as well.

EN 13624 (Phase 2 Step 1) is a suspension test similar to EN 13727 (Phase 2, Step 1). However, there are 2 significant differences:

- The test microorganism is substituted with *Candida albicans*.
- The test product must demonstrate the ability to achieve 4-log reduction of *C. albicans* in 60 minutes.

EN 14562 (Phase 2, Step 2) is a carrier test similar to EN 14561 (Phase 2, Step 2). As you may have already guessed, the test microorganism here is substituted with *Candida albicans* to represent yeasts and it must achieve 4-log reduction.

Upon passing all four tests, the test product is deemed to have met the minimum requirements of EN 14885:2015 and as such eligible for sale in the EU.

One point to note here is, although the standard lists the minimum requirements, each area of application also has additional European standards a product can be tested against. Instrument disinfectants for example, can be tested for fungicidal, tuberculocidal / mycobactericidal activities, limited or fully virucidal activities or sporicidal activity. At Viroxy, we encourage our clients to consider adding these suggested tests to make additional claims. When we consider the dangers that viruses and mycobacteria pose in medical settings, the onus is on manufacturers to develop products that exceed the minimum requirements.

It is important to remember that EN 14885:2015 has established different requirements, tests and pass criteria for different areas of application (i.e medical and veterinary) to address the challenges of each area effectively.

We highly recommend manufacturers to refer to EN 14885:2015 test methods by the European Committee for Standardisation when deciding on the appropriate test standards to support product antimicrobial claims.

Why is EN 14885:2015 Important?

1. Simulates actual conditions

EN 14885:2015 outlines a 3-phase test method where the test conditions come closer to resembling actual settings with each phase. Phase 1 tests are basic quantitative suspension tests to establish that the active ingredients in a disinfectant have antimicrobial properties without considering specific areas of application. Phase 2 is sub-divided into step 1 and step 2 to test the product's antimicrobial capabilities under simulated conditions. Phase 3 is a field test, conducted under real conditions and extend over a period of time. It is important to note here that the result from phase 1 test conducted outside the actual area of application cannot be used for efficacy claim.

2. Provides manufacturers a point of reference

The norm outlines the most basic of disinfectant tests. It enables manufacturers to select the appropriate standards to meet minimum requirements and validate claims. Astute manufacturers usually procure tests beyond the scope of EN 14885:2015 and sometimes beyond European standards to inflate product capabilities. By doing this, the product is able to compete in markets outside the European Union and it is well recommended as long as the product meets basic requirements.

Learn more about the tests we perform on your disinfectants

3. Enables end-users to assess products

A product tested according to standard tests, validated and clearly labelled as such will enable users to assess the suitability of a product for their intended use. For example, a surface disinfectant meant to disinfect surfaces in a hospital may not be appropriate to disinfect surfaces in a veterinary hospital. Each area of disinfection has specific requirements and employ different disinfection methodologies as outlined in EN 14885:2015.

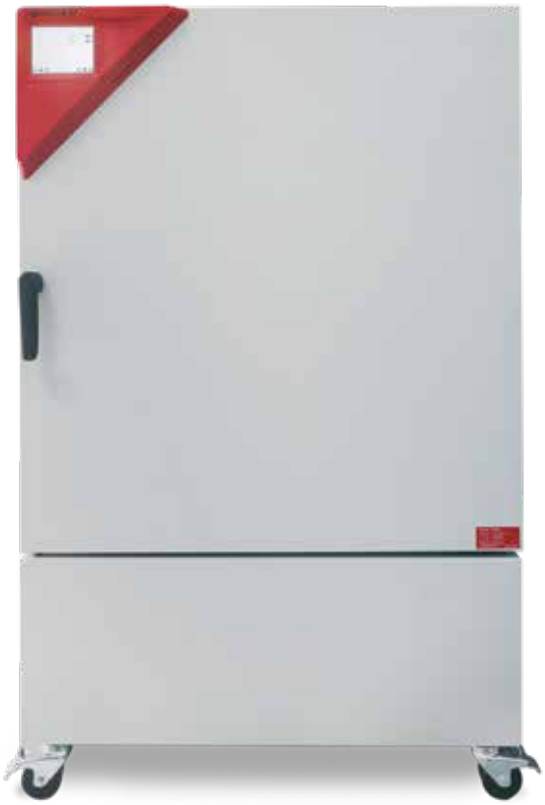
4. Helps regulatory authorities in validating claims made by manufacturers

The standards set in EN 14885:2015 make it easier for regulatory authorities to verify the claims made by manufacturers. A transparent and fixed standard applied across the board provides little room for error and does not leave definition to terms such as bactericidal, virucidal, sporicidal etc. open to interpretation or debate. False claims can be proven swiftly and the perpetrators brought to justice.

Check out our blog at www.viroxylabs.com

Material Compatibility Testing

Material compatibility testing according to EN ISO 21530 is mandatory under MDR to ensure your disinfectant is dental equipment friendly.



Our brand new climate chamber by Binder.

Although R&D experts have a general idea how a substance reacts with others, the extent to which the final formula will damage a surface material can only be determined through material compatibility testing.

The Medical Device Regulations in Europe require manufacturers to test disinfectants for dental equipment and surfaces according to EN ISO 21530 before they are released in the EU market due to the potency of the active ingredients often used in the development of disinfectants. Most antimicrobial agents such as alcohol, chlorine dioxide and hydrogen peroxide can damage certain (not to mention, expensive) surfaces instantaneously or over a period of time.

However, there is a safe threshold for every product containing these active ingredients, making it suitable for the intended use. Material compatibility testing identifies these thresholds to prevent dental service providers from facing financial losses due to premature instrument and surface degradation.

The concentration and exposure time of sample is pre-determined to form the basis of compatibility test. One important factor to remember at this stage is the intended use of the disinfectant. This simply means that the test must consider the materials that the disinfectant is expected to come in contact with during the course of its use.

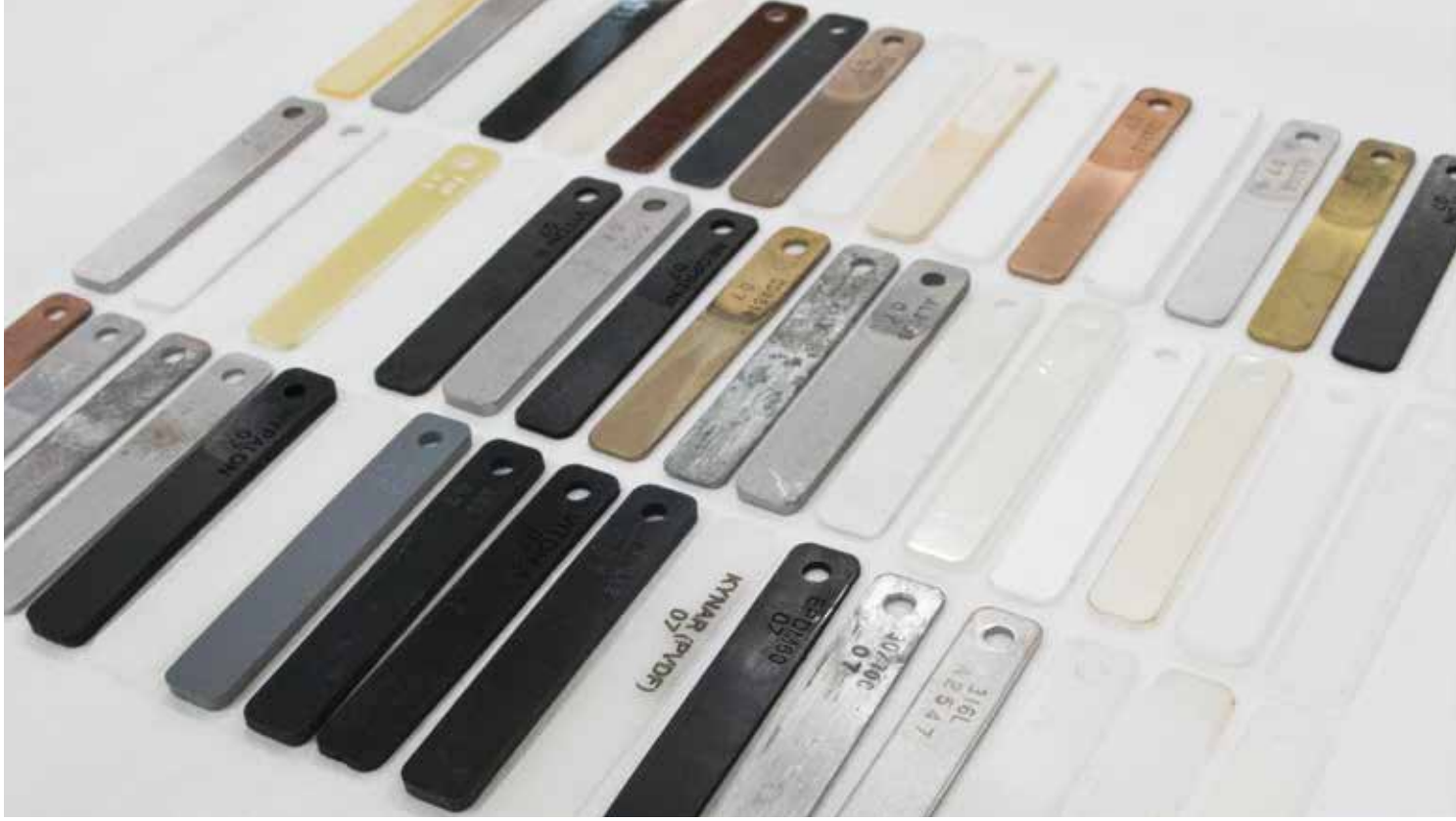
At Viroxy, we help manufacturers determine the compatibility of their products against a wide range of surfaces and materials. We are capable of testing disinfectants on genuine leather, stainless steel, polyethylene, latex and various other materials.

Our clients typically request for these 2 tests:

Material compatibility soak test

Materials commonly used in this test include stainless steel, aluminium and copper. The material is visually inspected, weighed and photographed to record its condition before exposure to sample. Next, the test material is immersed in the sample either completely or partially for a predetermined period of time over several cycles to determine how much exposure the material can withstand without damage. The test material is then removed, inspected visually, weighed and photographed again to record the changes. The average time required to complete a material compatibility soak test is 14 days.

There is no point in developing powerful disinfectants that damage surfaces. Test it before making claims



Contact test

Contact test is usually performed to test the compatibility of a disinfectant with the surfaces it is meant to be applied to. Common materials used in this test include artificial leather, polymethyl methacrylate and latex. As in material compatibility soak test, the test material is first visually inspected and the condition recorded. Next, a cotton ball soaked with sample solution is placed on the test material to cover at least 50% of the surface. The cotton ball is replaced with a fresh soak every 24 hours for 14 days. The test material is then inspected again for changes such as discolouration and surface bubbles.

Common factors that contribute to material incompatibility

There are two common factors that contribute to material incompatibility:

- The level of acid or alkali content in the test sample – extreme acidity or alkalinity can damage most substances.
- The presence of oxidizing agents – oxidizing agents such as hydrogen peroxide and chlorine can corrode certain substances with prolonged exposure.

Material compatibility testing is necessary for every disinfectant intended for use in the dental industry. Mainly because the industry uses several equipment made from sensitive materials such as dental impressions, dental chairs and burs. Depending on the type of material used to manufacture the equipment, they may deteriorate rapidly if the wrong type of disinfectant is used or proper care is not administered.

Material compatibility testing helps manufacturers identify and declare the types of materials their disinfectant is compatible with so that users can determine what's best for their facility.

At Viroxy, you can request to test your disinfectant on a specific material and we will test them according to EN ISO 21530 standards*

**Test is not under the scope of accreditation*

Email us at info.kl@viroxylabs.com or info@viroxylabs.com to get a quote for material compability testing

Take Your Pick From a List of 129 Test Microorganisms Available at Viroxy

The more microorganisms your disinfectant is effective against, the more powerful your clients perceive it to be.

Bacteria

Achromobacter xylosoxidans
Acinetobacter baumanni multi-drug resistant
Acinetobacter lwoffii
Aeromonas caviae
Aeromonas hydrophila
Alcaligenes faecalis
Bordetella bronchiseptica
Brevundimonas diminuta
Burkholderia cepacia
Citrobacter freundii
Corynebacterium minutissimum
Elizabethkingia meningoseptica
Enterobacter aerogenes
Enterobacter cloacae subsp. *cloacae*
Enterobacter gergoviae
Enterobacter hormaechei
Enterococcus casseliflavus
Enterococcus faecalis
Enterococcus faecium
Enterococcus faecium vancomycin resistant
Enterococcus gallinarum
Enterococcus hirae
Enterococcus raffinosus
Escherichia coli ATCC 10536
Escherichia coli (Migula)
Escherichia coli K12
Escherichia coli NCTC 8196
Escherichia coli O157:H7
Haemophilus influenzae
Klebsiella oxytoca
Klebsiella pneumoniae subsp. *pneumoniae*
Klebsiella pneumoniae subsp. *pneumoniae* ESBL positive
Kocuria rhizophila
Kocuria rosea
Leclercia adecarboxylata
Listeria innocua
Listeria monocytogenes
Micrococcus luteus
Moraxella catarrhalis
Neisseria gonorrhoeae
Pantoea agglomerans (Enterobacter agglomerans)
Proteus mirabilis
Proteus vulgaris ATCC 13315
Proteus vulgaris NCTC 4635
Proteus vulgaris OX19
Providencia alcalifaciens
Providencia stuartii
Pseudomonas aeruginosa ATCC 15442
Pseudomonas aeruginosa (Schroeter)
Pseudomonas aeruginosa NCTC 6749
Ralstonia insidiosa
Salmonella bongori
Salmonella enterica subsp. *arizonae*
Salmonella enterica subsp. *enterica* serovar Choleraesuis
Salmonella enterica subsp. *enterica* serovar Typhimurium
Serratia liquefaciens
Serratia marcescens
Shigella boydii
Shigella flexneri
Shigella sonnei
Sphingomonas paucimobilis
Staphylococcus aereus ATCC 6538
Staphylococcus aureus NCTC 4163
Staphylococcus aureus subsp. *aureus (MRSA)*
Staphylococcus capitis
Staphylococcus epidermidis
Staphylococcus epidermidis methicillin resistant
Staphylococcus haemolyticus SM131
Staphylococcus lugdunensis
Staphylococcus saprophyticus subsp. *aprophyticus*
Staphylococcus sciuri subsp. *sciuri*
Staphylococcus simulans
Staphylococcus warneri
Stenotrophomonas maltophila
Streptococcus agalactiae
Streptococcus bovis
Streptococcus dysgalactiae
Streptococcus gallolyticus
Streptococcus mutans
Streptococcus oralis
Streptococcus pneumoniae
Streptococcus pyogenes
Streptococcus salivarius
Streptococcus uberis (Diernhofer)
Vibrio parahaemolyticus
Yersinia enterocolitica subsp. *enterocolitica*

Bacterial Spores

Bacillus cereus
Bacillus licheniformis
Bacillus pumilus
Bacillus subtilis subsp. *spizizenii*
Clostridium difficile
Clostridium sporogenes

Yeasts

Candida albicans
Candida glabrata
Candida guilliermondii
Candida krusei
Candida lusitaniae
Candida parapsilosis
Candida tropicalis
Cryptococcus gattii
Cryptococcus neoformas
Rhodotorula mucilaginosa
Saccharomyces cerevisiae

Fungi

Aspergillus brasiliensis
Aspergillus fumigatus
Aspergillus ustus
Aureobasidium pullulans var. *melanigenum*
Cladosporium cladosporiodes
Microsporum canis
Penicillium chrysogenum
Scopulariopsis acremonium
Trichophyton mentagrophytes
Trichosporon mucoides
Zygosaccharomyces rouxii

Mycobacteria

Mycobacterium avium
Mycobacterium bovis
Mycobacterium fortuitum subsp. *fortuitum*
Mycobacterium peregrinum
Mycobacterium smegmatis
Mycobacterium terrae

Enveloped Viruses

Bovine viral diarrhea virus strain NADL
Feline coronavirus, strain Munich
Human herpesvirus 1, strain F
Vaccinia virus, strain MVA

Non-Enveloped Viruses

Adenovirus type 5, strain Adenoid 75
Bovine Enterovirus type 1
Murine Norovirus, strain S99 Berlin
Poliovirus type 1, LSc-2ab
Porcine parvovirus, strain NADL-2

We only purchase bacteria and yeasts with biosafety level II clearance and permitted for import by the Malaysian law.