

# vital4D

CLEANER, HEALTHIER BUILDINGS

**An expert approach  
to cleaning**

**BROUGHT TO YOU BY NEWLINE**



# 4D CLEANING

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The COVID-19 pandemic raised questions about the effectiveness of traditional cleaning methods.

The need for completely clean buildings, workplaces, living spaces and meeting spaces has never been greater.

All employers, directors and business owners have a responsibility to protect employees, residents, guests and others from coronavirus (COVID-19) while working,

living on or visiting their premises.

The coronavirus pandemic showed us that a completely new, multi-dimensional approach to cleaning is needed; one that protects against viruses transmitted via the air, and via surfaces, doors, walls and floors.



### A new approach to cleaning: Vital 4D

Vital 4D is our new approach to cleaning for the age of COVID and beyond. It can be adopted by managers, cleaning companies, operatives, cleaning supplies providers, employees, visitors and other stakeholders.

We believe it is the responsibility of all of us to work together on improving standards in cleaning and hygiene through:

- High quality, efficient cleaning equipment
- Environmentally sustainable cleaning products
- Training and education on techniques and hygiene standards
- Adoption of new modern technologies.

**vital4D**  
CLEANER, HEALTHIER BUILDINGS

## Why Newline?

Newline provide cleaning supplies, equipment and advice underpinned by a deep commitment to technical expertise, innovation and service.

We are dedicated to transforming all kinds of buildings into cleaner, healthier places to live, work, play, visit and learn.

Our vision is to make buildings safer and cleaner for all through innovative cleaning solutions and hygiene standards that are good for people and good for the planet.

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## How and why the approach to cleaning needs to change

Cleaning is often perceived as a functional task with only a low requirement for training and technology. Yet with the new demands of modern cleaning, that needs to change.

Cleaners not only need the right tools for the job. They require support from management and new recognition for the role of cleaning.

Across the board, organisations need to take a fresh look at cleaning from the perspective of environmental and sustainability issues, hygiene standards and the negative effects to health of prolonged cleaning chemical use.



# A 7-point plan for change in cleaning

**1 Perception change at all levels**  
The approach to cleaning from corporate management and organisational governance needs to change, so that hygiene issues feature consistently and prominently at high level.

The same applies to management and governance at cleaning companies, so that responsibility and accountability for standards is shared by everyone on the team.

**2 Improved awareness for all**  
Improved awareness around workplaces, offices and campuses is needed, providing clear guidance for the use of washrooms.

Facilities managers must verify that common areas and toilets are cleaned properly as well as being provisioned with enough hand washing facilities, paper towels and other supplies.

**3 Better training for cleaning operatives**

Cleaning needs to be transformed from unskilled to skilled work that requires formal training and accreditation not just on what constitutes "clean", but on the use of equipment, chemicals and techniques.

Research following 6,000 people over 20 years found that lung function decline among women working as cleaners using national brand cleaning products was comparable to smoking 20 cigarettes a day.

For example, cleaners should be educated in:

- Use of 'wipe vs spray' techniques to avoid inhalation (of chemicals) when using surface cleansing agents
- The length of time for which cleansing agents and anti-viral sanitisers must be in contact with a surface to be effective
- The difference between sanitising and disinfecting surfaces and why cleaning a surface before doing either is vital.

**To kick off your training, use the Vital 4D Health Check**

This service identifies areas of improvement for training, across cleaning products, equipment, COSHH and hand hygiene.

**4 The right tools for the right jobs**

Chemicals and cleaning products must be right for the job, but so must the tools and equipment. Modern tools can improve cleaning efficiency, speed up cleaning and improve quality.

Training cleaners in the use of new cleaning tools and technologies is also key to healthier, safer cleaning.

**5 Using sustainable and environmentally safe products**

Many chemicals traditionally used in industrial and commercial cleaning can be harmful, not just to the cleaners using them but also to those working or living in the cleaned spaces.

So sourcing environmentally and sustainably sound cleaning products from ethical suppliers will result in higher levels of safety for cleaners, and a safer, healthier building.

Sustainable cleaning products such as Tersano, Innuscience and Shield Me offer an alternative to bleach- and petrochemical-based cleaning products.

**6 Measures and standards**

Workplaces deserve hygiene rating systems, similar to the Food Hygiene ratings system used in the restaurant trade, to show that a building has been cleaned. Yet what constitutes "clean" and how is "hygiene" defined in workplaces and shared spaces?

With no industry regulation to provide tangible standards, until now our only measure of cleanliness has been our eyes and nose.

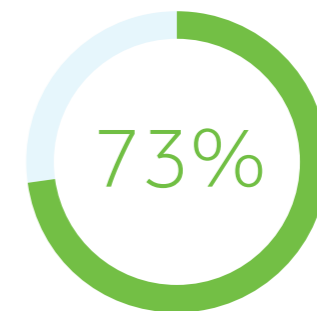
Even so, science-based testing methods along with auditing can take some of the guesswork out of standards, making the invisible visible. Why not use ATP testing as a true measure of surface cleaning?

**7 4D Cleaning**

For total effectiveness in cleaning, all four dimensions of a room - floors, walls, surfaces and air - must be treated.

Cleaning one without the other, or leaving just one component untreated, constitutes ineffective overall hygiene, so if floors, walls and surfaces are all clean, but air is dirty, the whole building cannot be deemed clean.

4D Cleaning lies at the heart of Newline's VITAL 4D approach, which is designed to raise standards in cleaning to new levels in buildings, workplaces, meeting spaces and living spaces.



of Newline's customers agree sustainability is important.

Tersano, Innuscience and Nordic Chem offer alternatives to bleach- and petrochemical-based products.

As part of the Vital 4D Health Check, Newline use ATP (Adenosine Triphosphate) swab testing to analyse processes and provide scientific proof of surface cleaning standards.

# Vital4D

The VITAL 4D approach combines 4D Cleaning expertise with environmentally safer cleaning products, modern equipment and new technologies to achieve cleaner, healthier, more hygienic buildings.

It treats each dimension of a room, office, meeting place or workspace individually, cleaning floors, walls and ceilings, surfaces and air separately and systematically. The result is cleaner, healthier buildings.



## DIMENSION 1 FLOORS

Floor cleaning is possibly the most common aspect in the cleaning regime, with cleaners typically spending up to 60% of their day vacuuming or manual mopping. High traffic areas in any building may harbour dirt and disease walked in from the external environment. Using traditional mops can be very time-consuming.

To deal with floor-based dirt and disease, VITAL 4D combines new cleaning materials with products such as the i-mop, which cleans 90% more effectively than conventional string mops. The i-mop cleans floors 70% faster and reduces environmental impact by as much as 75% by using less water.



*"Newline and Norse both value care and innovation. With Newline's expert help, we have reduced costs and increased staff morale by investing in the i-mop".*

**Simon Bullimore**  
Procurement and Contracts Manager, Norsecare



MADE BLUE

Sustainability issues are important for the cleaning sector. For every i-mop sold, social enterprise Made Blue provide 18 litres of cleaning drinking water daily for 3 ½ years to communities in water-deprived areas of the world.

CURRENTLY THE TOTAL STANDS AT NEARLY **1 BILLION LITRES** AND COUNTING



## DIMENSION 2 WALLS

Walls may not be included in every cleaning schedule because of accessibility issues, lack of proper equipment or time constraints. Yet dirt and grime on walls is usually present, if not always visible, impacting on health and hygiene.

To overcome these challenges, Vital 4D recommends JET3's targeted spray-scrub technology. The JET3 fits into spaces which other machines cannot reach, where its powerful scrubbing action releases ingrained dirt from any surface.



## DIMENSION 3 SURFACES

Surfaces such as worktops, desktops, furniture, doors and sanitaryware can all harbour dirt, germs and viruses which must be eliminated. Surface types and materials vary from sector to sector and building to building, as do their frequency of use. Surface cleaning is vital to health and hygiene.

In communal areas, surfaces are particularly vulnerable to germs and may require varying treatments. VITAL 4D's approach combines cleaning materials with specialist techniques to address this issue. Recommended products include Tersano and Shield Me for safe, non-toxic daily cleaning for as little as 4p per trigger spray, and Zonitise, which provides long term barrier protection.

Shield Me's formula stands out because it is non-alcoholic, non-irritant, non-flammable and eco-friendly. Plus, it removes viruses and bacteria on surfaces in less than 1 minute.



*"For long term surface hygiene, Nordic Chem UK-tested and approved antimicrobial coating stops and prevents growth of micro-organisms for up to 30 days."*



## DIMENSION 4 AIR

"Sick Building Syndrome" can result from poor air quality inside buildings. Yet most traditional cleaning contracts do not include air cleansing to remove air-borne contaminants which are commonly redistributed through the air inside a building. VITAL 4D's approach is to "scrub" internal air, removing contaminants and improving air quality.

A single sneeze can expel up to 40,000 virus-containing droplets which may linger in the air for up to 8 hours. The Radic8 Viruskiller is a market-leading solution that can kill 99.9999% of all airborne viruses and pathogens in one single air pass.



# MICROFIBRE VS TRADITIONAL MOPS, CLOTHS AND WIPES

It's been known for some time that microplastics – and in particular microfibres – building up in our oceans constitute a huge environment problem.

For the cleaning sector, questions arise about the extent to which microfibres are used in products such as cleaning cloths and mops, and how their environmental impact and performance fair against traditional mops and cloths.

## Why is microfibre used in cleaning fabrics?

Microfibres are fine synthetic, hollow or split fibres. Cloths made from microfibre tend to have more fibres than a traditional cleaning cloth, creating a much larger surface area and giving them both a static effect when dry and a capillary suction action when wet.

This means microfibre cloths are highly efficient in removing 99.9% of bugs, dirt and bacteria from surfaces.

## Durable and hygienic

Cleaning cloths, mops and wipes made from microfibre can be washed and reused many times, in order to kill and remove bacteria and prevent cross-contamination.

This process uses less water and fewer chemicals, resulting in fewer allergens released into the air and waterways, making microfibre cloths cost-effective and better for the environment.

## So what's the catch?

It's already well known that microfibres are shed by materials such as cloths and clothing, entering water systems and eventually ending up in the oceans.

Because synthetic microfibres do not degrade easily, they can persist for decades, building up with other microplastics and entering the food chain with devastating consequences.

## Are there any less harmful microfibre products?

Yes. There are less harmful microfibre products, such as the Robert Scott Exel range.

Testing of microfibre material used in the Exel cloth by an independent laboratory in Germany found that in a simulated cycle of 100 washes at 50 degrees, the Exel microfibre cloth sheds less than many products.

**It was given an "A grade" for microfibre shedding.**



## Microfibre cloth and mop benefits

- ✔ Remove 99.9% of micro-organisms
- ✔ Clean up to 45 square metres per floor mop
- ✔ Clean 45% better and up to 20% faster than string mops
- ✔ Use 70% less water than string mops
- ✔ Require fewer chemicals
- ✔ Use less plastic and less carbon.

# BIOTECHNOLOGY IN CLEANING

Bio enzyme cleaning is the use of living organisms such as bacteria and enzymes combined with surfactants to make high performance cleaning products.

The aim of bio enzyme cleaning is to replace harmful chemicals, eliminate waste and deliver sustainable cleaning solutions through biotechnology and sustainable solutions.

This biotechnological approach is environmentally smart because it involves renewable raw materials instead of petrochemical-based materials such as crude oil. After use, bio enzyme products become biodegradable and can return – sustainably – to the natural cycle.

Furthermore, bio enzyme products usually require less energy in production, resulting in lower emissions.



## WHY CHOOSE BIO ENZYME CLEANING?



**Performance**  
Superior Performance



**Price Competitive**  
Cost in use



**Passionate Service**  
National Support Team



**People Friendly**  
Reducing H&S Liability



**Planet conscious**  
Either Ecolabel or Ecologo approved

*"Working with Newline, we have recently changed all our cleaning chemicals from petrochemical to bio enzyme-based products. This is a great success and receives positive feedback from our staff."*

**Tom Lyons**  
Managing Director, Black Swan Care Group

# Tersano Stabilised Aqueous Ozone (SAO) cleaner and sanitiser



Save up to 70% of your cleaning chemical budget with Tersano's natural and sustainable SAO solution. It's a chemical free, cost effective and safe cleaning solution that's more effective at killing germs than bleach!

Developed by Tersano, this system is 100% natural and needs just water, oxygen and electricity to create a powerful cleaning aid.

With no toxic chemicals, it is safe for use in areas where people live and work and can kill 99.999% of harmful bacteria without the need for potentially dangerous chemical cleaners.

The SAO Dispenser improves cleaning procedures by:

- Reducing your chemical expenditure by 70%
- Delivering a 25% average ROI via cost savings
- Eliminating harmful bacteria, germs and viruses including coronavirus, salmonella and E.coli
- Removing stains on surfaces and carpets without chemicals
- Cleaning without chemicals, toxins, VOC's, carcinogens or chemical residue
- Improving sustainability by eliminating toxic, chemical waste and reducing transportation costs and single use plastic packaging.

**tersano**™ Sustainable, affordable chemical-free cleaning

<p><b>Natural and sustainable</b> solution that's more effective than bleach</p>	<p>Reduces use of chemicals of concern by <b>70%</b></p>	<p><b>25%</b> average ROI costs savings</p>
<p><b>70%</b> saving of your cleaning chemical budget</p>	<p>Can kill <b>99.999%</b> of harmful bacteria</p>	<p>Contains <b>no toxins, VOCs, carcinogens or chemical residues</b></p>
<p><b>543,735,000</b> litres* of toxic cleaning chemicals prevented from entering the environment each year.</p>	<p><b>90%</b> less water used</p>	<p>Certified under <b>EN1276</b> and <b>EN13697</b></p>
<p><b>100%</b> natural, using only water, oxygen and electricity</p>	<p>Highly effective cleaning and stain removal solution for surfaces and carpets</p>	<p><b>83%</b> Reduced plastic packaging</p> <p><b>72%</b> Reduced cardboard packaging</p>

# Washroom hygiene and odour control

Sugarcane is a class C4 plant, absorbing more carbon dioxide (CO<sup>2</sup>) and oxygen than trees.

With concerns growing about hygiene and environmental issues, we all want the products we use in our washrooms to be as sustainable as possible.

Sustainable washroom products are also a big priority. Newline's Fig range of bamboo and sugarcane paper consumables are not only healthier. They're sustainable and more cost effective too.

sustainability-conscious organisations who also want to stay within budget without compromising on quality.

Both bamboo and sugarcane products are hypoallergenic – as well as being more sustainable than tree-based products, taking months to grow back after harvesting, compared to the decades taken by trees.

Fig's eco-friendly, sustainable washroom paper consumables include toilet tissue, towel rolls, hand towels and a stylish range of antimicrobial dispensers. They're a smart choice for all



**BAMBOO** can grow 3 feet in 24 hours

Bamboo and sugarcane create softer, superior quality, chemical free products.

## Biogene's automatic solution for washroom odours

There are 5 main reasons washrooms smell and none of them can be solved with air fresheners. In fact, air fresheners are the most common – and most ineffective – solution for washroom odours.

The causes of washroom smells are bacteria contamination (often from urine) on and around:

- Walls
- Floors
- Toilet bases
- Drains

Biogene's innovative probiotic hygiene solution gets to the route of the problem, killing odour-causing bacteria in every dimension of the washroom.



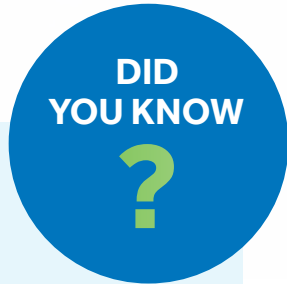
### CLIENT TESTIMONIAL

"For some time, we'd been experiencing a pervasive, unpleasant odour in one of the student toilets. No matter what we tried, the odour persisted. Then our cleaning company introduced us to Biogene, which we trialed in the offending toilet. A short while after treatment, the smell started to disappear.

My understanding is that Biogene contains microorganisms which consume urine from toilet and washroom surfaces – yuck! Soon after, we couldn't smell anything other than air freshener, so we extended Biogene to the rest of our toilets and since then we haven't had any complaints about bad odours!"

Head Housekeeper  
St Faith's School, Cambridge

# 4D Cleaning at a glance



- ✓ The average can of air freshener contains up to 66 different chemicals
- ✓ Thousands of litres of chemicals from cleaning products are washed into water courses each year
- ✓ Sodium hypochlorite (or household bleach) in wastewater can form persistent carcinogens which may ultimately enter the foodchain
- ✓ Some cleaning products used over the long term can damage lung function

Ask Newline about a free **Vital 4D Health Check**

Contact the experts at Newline to see how we can help you achieve cleaner, healthier buildings.

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