



Rethinking hygiene in commercial interiors

How thoughtful specification can create cleaner, quieter and more comfortable commercial spaces

creating better environments

Forbo
FLOORING SYSTEMS



The changing role of commercial interiors

The way we think about commercial interiors is changing. Spaces that were once designed primarily around aesthetics and function are now expected to create welcoming environments, adapt to changing patterns of use and deliver lasting performance throughout their lifecycle. Whether in hospitality and leisure venues, education settings, workplaces or public buildings, interiors are expected to provide experiences that extend well beyond a positive first impression.

Today, the quality of a space is measured not only by how it looks, but by how it performs over time. Comfort,

operational efficiency, durability and user experience have become integral to successful interior design, with every material and finish contributing to the overall performance of the environment.

As these expectations continue to evolve, long-standing assumptions about commercial interiors are being challenged. This whitepaper explores how creating hygienic, welcoming and high-performing spaces no longer requires compromise, and why the choices made throughout a project play a fundamental role in shaping the environments of tomorrow.

What defines a hygienic commercial interior?

The future of hygienic design lies beyond cleaning. It starts with specifying materials that support healthier, more resilient interiors from the outset.

Hygiene is often judged by what we can see. Clean surfaces, polished finishes and orderly spaces naturally create the impression of a well-maintained environment. While appearance plays an important role, it tells only part of the story.

A truly hygienic commercial interior is one that continues to perform throughout everyday use. As people move through a building, they introduce dust, allergens, moisture and contaminants that are not always visible but can influence the quality of the indoor environment. At the same time, frequent cleaning, heavy foot traffic and constant use place increasing demands on the spaces around us.

As expectations around health, wellbeing and building performance continue to evolve, hygiene is no longer defined solely by cleaning routines. It is increasingly shaped by how well a space limits the transfer and accumulation of contaminants, how easily high-contact areas can be maintained and how effectively the indoor environment continues to perform over time.

Creating hygienic interiors therefore requires a broader perspective - one that considers the whole journey through a building, from the moment people enter to the surfaces they touch, the air they breathe and the materials they move across.



Hygiene beyond cleaning

Hygiene is not just about being clean. It's about how effectively a surface cleans, recovers and performs over time.

A hygienic commercial space is shaped by many interconnected elements. Looking beyond visible cleanliness helps reveal where dirt, moisture, particles and everyday contact enter the environment - and where thoughtful design and maintenance choices can help manage them.

Entrance areas

Hygiene begins at the threshold. Well-designed entrance areas can help limit the dirt and moisture carried into a building before it reaches the wider interior. Effective entrance flooring can capture contaminants at the point of entry, easing the burden on subsequent cleaning and helping protect adjoining surfaces from premature wear.

High-contact surfaces

Door handles, counters, handrails and other frequently touched objects form another important part of the hygiene picture. Because these surfaces experience repeated contact throughout the day, their cleanability,

durability and maintenance requirements need to be considered alongside their appearance and function.

Air quality and filtration

Air quality adds another layer. Ventilation and filtration systems help manage airborne particles, while the materials within a space can influence how dust and allergens are retained, released and removed during routine cleaning. In busy interiors, where people continuously move between spaces, these factors become increasingly important.

Taken together, entrance control, touchpoint management and air quality show why hygiene is best understood as a system rather than a single cleaning task. Flooring sits within that wider system: it is one of the largest surfaces in a commercial interior and is exposed continuously to footfall, dirt, moisture and maintenance throughout the day.





In each of these environments, hygiene is closely connected to material performance.



Flooring

The expectations placed on commercial flooring are broader than the appearance alone. Hospitality and leisure facilities must remain attractive and comfortable while responding quickly to spills, stains and constant guest turnover. Education settings need robust surfaces that support concentration and withstand intensive daily traffic. Offices must balance collaboration, focus and employee

experience, while public buildings need dependable performance and straightforward maintenance.

In each of these environments, hygiene is closely connected to material performance. A surface that is difficult to clean, slow to dry or unable to retain its appearance can increase maintenance demands and undermine the quality of the interior. By contrast, materials designed for efficient cleaning

and long-term use help maintain consistent standards with less disruption.

The question is not simply whether a floor can be cleaned, but whether it can be cleaned effectively, recover quickly and continue to support the intended experience throughout its service life. Durability, acoustic comfort, slip performance and maintenance all form part of that assessment.

Healthier interiors: a balanced approach

Entrance areas

An effective entrance strategy should be designed as a system rather than a single mat at the doorway. A three-zone approach can begin outside, continue immediately inside and extend into circulation areas, allowing dirt and moisture to be progressively removed as people move through the building. Forbo guidance indicates that a six-metre entrance system can stop up to 95% of walked-in dirt and moisture and reduce cleaning costs by up to 65%. The right solution should reflect the building's location, expected footfall, user profile and entrance configuration. Where fire performance is required, the specific entrance-flooring system should also be checked against EN 13501-1; Bfl-s1 classification is available within commercial textile entrance systems.

The specification should reflect location, expected footfall, user profile and entrance configuration. Where fire performance is required, entrance flooring should also carry an appropriate reaction-to-fire classification for its application, such as Bfl-s1 in accordance with EN 13501-1 (British Standards Institution, 2019).

High-contact surfaces

Material choice can directly influence how effectively high-contact surfaces are maintained. Frequently touched elements such as handles, handrails, counters, lift controls, shared touchscreens and washroom fixtures should favour smooth, non-porous, durable and readily cleanable finishes. CDC guidance recommends avoiding materials that retain moisture or

The best-performing interiors are designed as a whole, not specified in isolation.

contain difficult-to-clean seams and crevices, and identifies metals and hard plastics as preferable choices where resistance to microbial growth is important. (Centers for Disease Control and Prevention, 2024)

Surface condition matters too. Cracks, scratches and damaged finishes can make effective cleaning more difficult, while a recent review published in Building and Environment found that material porosity and texture influence cleanability, with smooth, non-porous finishes generally allowing more effective cleaning than porous or highly textured surfaces (Zeinali & Platt, 2025)

For selected high-touch applications, antimicrobial materials may offer an additional layer of protection.



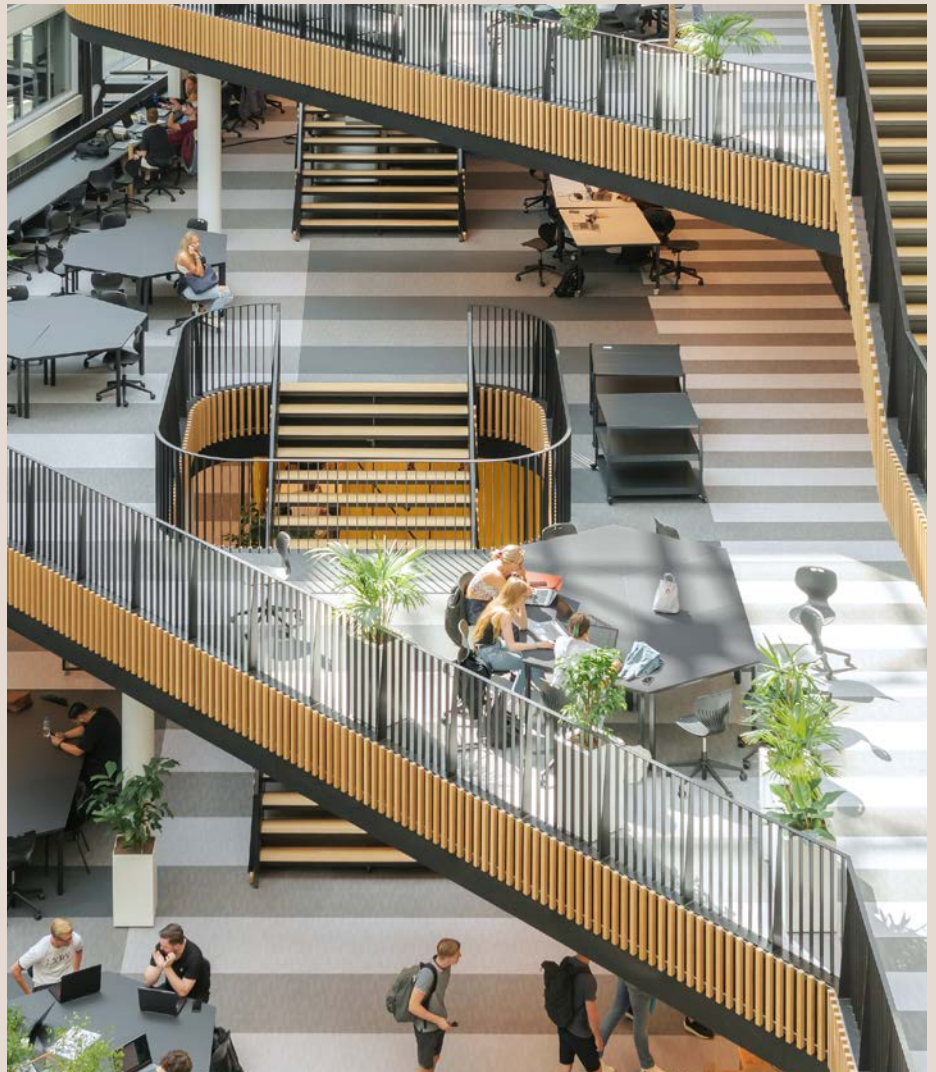
Research published in *Letters in Applied Microbiology*, covering environments including offices and education settings, found significantly lower bacterial levels on copper touch surfaces than on conventional surfaces. This highlights how material choice can support a wider hygiene strategy alongside effective cleaning and maintenance (Inkinen et al., 2017)

Air quality and filtration

Ventilation should respond to how a space is occupied and used rather than being treated as a universal specification. Occupancy density, activity levels and pollutant sources all influence outdoor-air requirements, which is why offices, classrooms, restaurants and leisure spaces can require very different approaches.

ASHRAE guidance provides useful benchmarks. Typical office spaces have an outdoor-air rate of 2.5 L/s per person plus 0.3 L/s per m², while restaurant dining rooms require 3.8 L/s per person plus 0.9 L/s per m². More active leisure environments have greater requirements: health club rooms use 10 L/s per person plus 0.3 L/s per m². These differences demonstrate why ventilation should be matched to the function, occupancy and activity level of each space. (ASHRAE, 2022)

Good indoor air quality also relies on more than ventilation rates alone. Pollutants should be controlled at source where possible, sufficient outdoor air introduced to dilute indoor contaminants, and appropriate filtration used to capture airborne particles. Filters and ventilation systems should be maintained regularly and performance reviewed when occupancy or the use of a space changes. ISO 17772-1:2017 provides recognised indoor environmental parameters covering indoor air quality, alongside thermal environment, lighting and acoustics, which can inform building design and assessment together with applicable national requirements (International Organization for Standardization, 2017).



Flooring

Flooring specification has traditionally involved a compromise. Hard surfaces are associated with durability and straightforward maintenance, but can create a harder underfoot experience and contribute to noisier interiors. Carpet brings warmth, softness and acoustic comfort, yet concerns around stains, dust, moisture and long-term maintenance may limit its use in demanding environments. That compromise is particularly visible in hotels, restaurants, leisure venues, learning environments and collaborative workplaces, where comfort must sit alongside spills, heavy traffic, wheeled movement and frequent cleaning. Recognised standards can help turn these requirements into measurable

criteria: EN ISO 10874, for example, classifies flooring according to the intensity of use, with Class 33 covering heavy commercial environments (International Organization for Standardization, 2009).

The specification challenge is not simply to choose between performance and comfort, but to identify materials that can deliver both. Acoustic performance can be measured through impact sound reduction, while recognised testing such as BS 7976-2 can be used to assess slip risk (British Standards Institution, 2013). Considering these alongside cleanability, durability and comfort helps specifiers focus on how a floor will actually perform throughout its service life.

flotex® applying the principles in practice

80
MILLION

nylon fibres per square metre

Low slip risk in both wet and dry conditions, assessed in accordance with BS 7976-2 using the UK SRG pendulum method

up to
21dB

impact sound reduction

Forbo Flooring System Flotex is a flocked flooring range developed for commercial interiors where hygiene, durability and comfort need to work together. Its dense nylon 6.6 surface and waterproof backing create a washable, fast-drying floor designed for intensive daily use. Most common stains can be removed with water, helping areas return to use quickly while limiting downtime.

Across the Flotex range, up to 80 million nylon fibres per square metre create a highly durable surface that retains its appearance and performance in demanding applications. The straight fibres capture fine dust and allergens and release them during cleaning, supporting regular maintenance and indoor environmental quality. All Flotex products are tested for indoor air emissions in accordance with EN 16516 after 3 and 28 days, with Flotex sheet offering ultra-low emissions. Flotex also combines this practical performance with a warm, comfortable underfoot feel and impact sound reduction up to

21 dB, helping to support quieter and more comfortable interiors.

The wider Flotex range is available in sheet, tile and plank formats, allowing the same core performance principles to be applied across different spaces, installation requirements and design ambitions. Sheet provides a continuous flooring solution with extensive creative possibilities, while tiles and planks introduce modular flexibility for different layouts and localised replacement. For projects requiring something more individual, Flotex Bespoke uses high-definition digital printing to recolour existing designs or create entirely new visuals, allowing branding, imagery or a specific creative concept to be incorporated into the floor.

See Flotex hygiene in action

Discover how simple it is to maintain a clean, hygienic Flotex floor in our video.

CLEANING & MAINTENANCE



What to consider when specifying commercial spaces



Creating a cleaner commercial environment involves looking beyond any single surface. The following questions provide a practical framework for considering entrance areas, high-contact surfaces, air quality and flooring together throughout the lifecycle of a space:

Does the entrance strategy provide enough coverage to capture dirt and moisture before it travels further into the building?

Are high-contact surfaces designed for effective cleaning and repeated daily use?

Have unnecessary joints, gaps and hard-to-reach details been minimised where dirt can accumulate?

Does the ventilation strategy provide appropriate fresh air for the occupancy and use of the space?

Is filtration suited to managing airborne particles, with filters that can be easily accessed and maintained?

Have potential sources of dust, allergens and indoor pollutants been identified and considered?

Can spaces return to use quickly following cleaning, spills or maintenance?

Will materials withstand intensive use while retaining their appearance and performance over time?

Does the flooring balance cleanability and durability with acoustic comfort, underfoot comfort and slip resistance?

Can worn or damaged elements be maintained or replaced without unnecessary disruption and waste?

Are entrance control, surfaces, air quality, materials and maintenance being considered together rather than in isolation?

Considering these questions together helps move decision-making beyond short-term appearance or initial cost. It creates a more complete view of how the interior can support hygiene, operational efficiency, user comfort and long-term quality.

Project insights

Built projects provide useful evidence of how material choices respond to real operational demands. These examples show how Flotex can support different environments through cleanability, durability, comfort and design flexibility.

AstraZeneca, Warsaw, Poland

AstraZeneca's Warsaw expansion created capacity for another 500 people while establishing a central community hub supported by an agora, conference rooms, focus rooms, design work zones and smaller settings adapted to different ways of working.

A combination of Forbo flooring solutions, including Flotex Wood, Concrete, Seagrass and a bespoke Flotex Vision design, helped the interior respond to distinct activities while maintaining a coherent visual language.

Flotex supported more comfortable working settings while providing the practical performance required in a busy contemporary workplace.

Viewed together, the projects provide two forms of real-world proof: intensive, repeat use in a high-volume education environment and adaptable performance within a contemporary workplace. Both demonstrate how Flotex can contribute to spaces that need to remain comfortable, maintainable and resilient over time.



151001 | black wood, 151006 | antique wood,
151003 | grey wood

University of Illinois, USA

The University of Illinois' street dining renovation serves more than 3,000 students each day through a high-end micro-restaurant concept. Across the wider campus, more than 8,000 m² of Flotex has been installed in student housing and shared areas used for dining and student-union activities.

The university has repeatedly selected Flotex because of its proven cleanability, durability and hygiene. In spaces exposed to continuous footfall, food service and frequent cleaning, this repeat use provides practical evidence of the floor's ability to support demanding maintenance routines while retaining long-term performance.



t546032 | metro petrol, **t546005** | metro nimbus, **t546008** | metro anthracite



151001 | black wood, **151003** | silver wood
151005 | red wood, **151007** | english wood



Looking ahead

Healthier commercial interiors are rarely created through one design decision. They are the result of many carefully considered choices working together to improve everyday performance and preserve the intended experience of a space over time.

As expectations around wellbeing, hygiene and operational efficiency continue to evolve, flooring has an increasingly important role to play in shaping environments that perform as well as they look. The future of commercial flooring is no longer about choosing between comfort and cleanability. It is about expecting both.

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