

0.1

ORTHOPEDICS

- 0.11 SERVICE DESK
- 0.12 FACULTY
- 0.13 PATIENT CARE ASSISTANT
- 0.14 HOSPITAL DOCTOR
- 0.15 PHARMACIST
- 0.16 ADMINISTRATION
- 0.17 ORTHOPEDIC SURGERY
- 0.18 STAFF NURSE

SPHERA HEALTH CARE ENVIRONMENTS

creating better environments

Forbo

FLOORING SYSTEMS



2nd floor
Dermatology

1st floor
Surgery

G
ground floor
Reception & Registration

52253 | shimmer Swedish grey, 50248 | nutmeg, 50254 | thyme

INNOVATIVE, PREMIUM HOMOGENEOUS VINYL

Sphera is Forbo's premium range of homogeneous vinyl flooring, designed to combine outstanding performance with refined aesthetics. Developed by our European design team, the Sphera collections offer a versatile and purpose-driven design portfolio that brings character and style to every project. Each Sphera collection is thoughtfully created with specific application areas in mind. By using the latest production technologies, Sphera delivers a durable, healthy, and hygienic flooring solution that meets the highest standards of modern environments.

Designed for Healthcare Environments

Sphera's distinctive homogeneous vinyl designs are particularly well suited for healthcare facilities. The balanced use of colour, texture, and visual depth contributes to calm, welcoming spaces that support the well-being of patients, visitors, and staff. Combined with excellent hygiene performance and long-lasting durability, Sphera helps create healthcare environments that are both functional and comforting.



50096 | azul, 50103 | barite

PERFORMANCE & DURABILITY

Especially in healthcare environments, it is important that a floor can withstand the impact of the day to day traffic of heavy equipment, hospital beds, wheelchairs and thousands of feet. Not only today or tomorrow, but also in the next decades in which your facility operates.

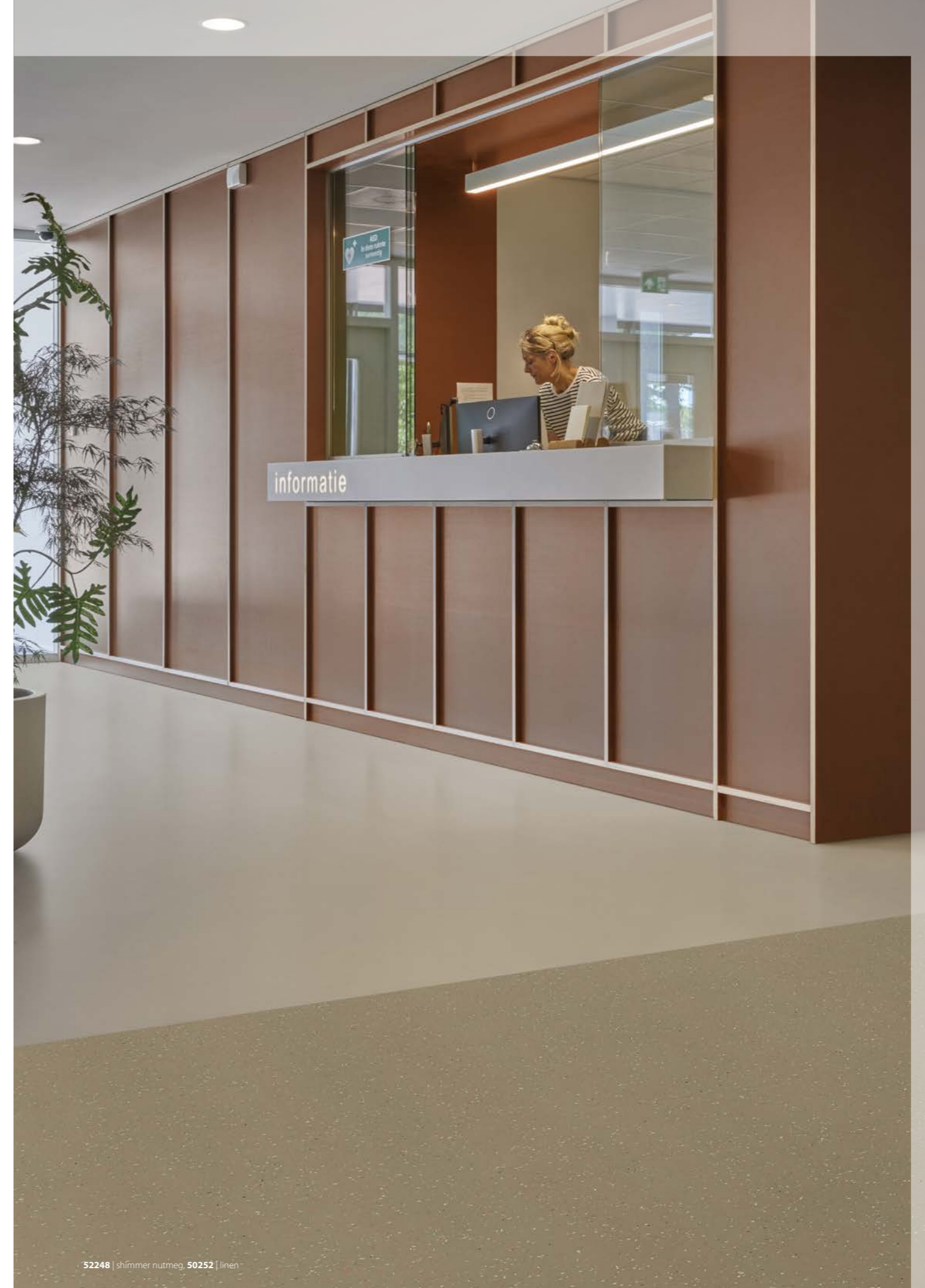
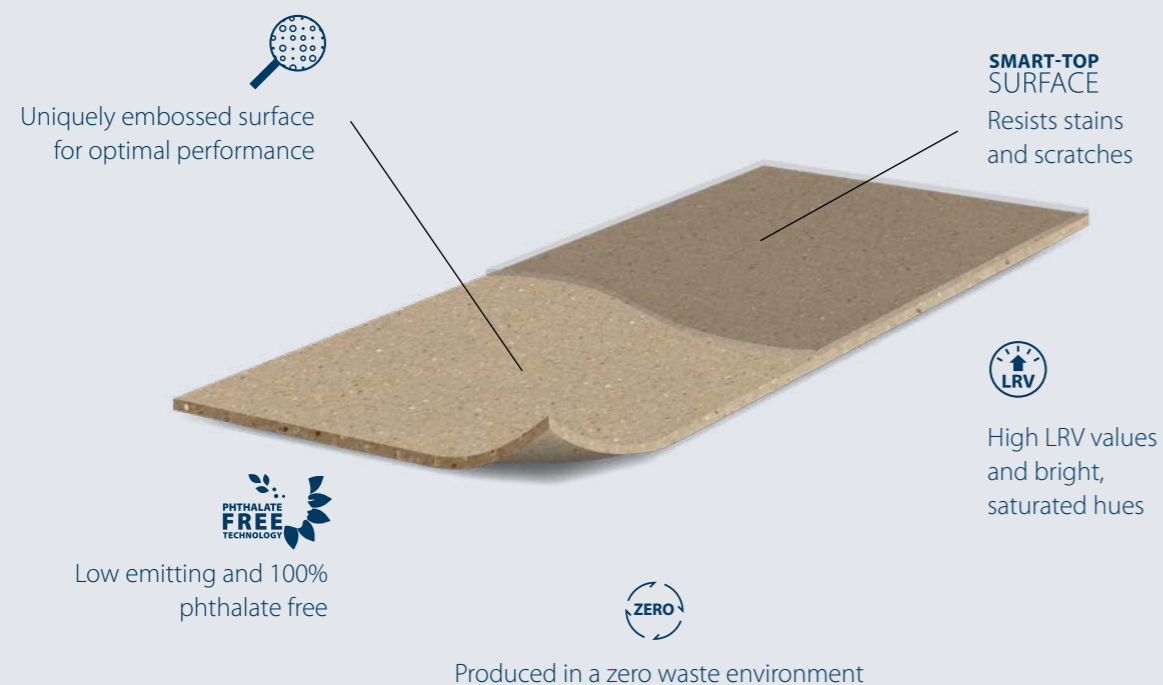
As part of its advanced production process, Sphera is finished with a specially developed UV-cured lacquer. After drying the lacquer, the application of an embossing achieves a particularly matt finish, which diffuses light and conceals any minor sub-floor imperfections that may be present. The Forbo engineered process provides a film of lacquer with consistent thickness on both the peaks and in the valleys.

Forbo is known for its high quality products, using state of the art technology and processes, leading to:

- Advanced technology
- Excellent durability
- High scratch resistance
- Chemical resistance

FORBO'S HOMOGENEOUS FLOORING TECHNOLOGY

The Sphera collection is treated with a specially developed SMART-top finish. This UV cured PUR-coating ensures Sphera has a high resistance to chemicals, scratches and stains. The surface treatment in combination with the embossing provides an easy to clean solution.



MODERN ADVANCED TECHNOLOGY

There are many parameters influencing product quality of a homogeneous vinyl. The type of PVC in combination with the SMART-top finish and the process settings are key factors. It is not just the binder content that determines how the floor performs.

The type of PVC (length of the polymer chains) in combination with the process settings (e.g. temperatures of extruders and ovens) are important to the product quality. Forbo's experienced research and development team has put a lot of effort into the recipe and process development of Sphera.

A binder content of >55% is considered premium homogeneous vinyl, classified as type 1 according to EN-ISO 10581. When the binder content gets too low and the filler content gets too high (class II and III products), abrasion resistance can become problematic.

There is a perception sometimes that the lightest product in weight is the best, because this is often the product with the highest binder content. The majority of all premium homogeneous vinyl's is between 2.7 and 3.0kg/m² at 2mm thickness. They have been produced like this for many, many years and have performed well in high traffic environments for a very long time.

So whatever homogeneous vinyl from Forbo you choose, you know that the highest quality standards will be met.

CHEMICAL RESISTANCE

Floor coverings in healthcare environments are often exposed to a wide variety of spills and potential staining coming from a wide range of chemicals. For hygienic and aesthetic reasons, it is important that substances that are likely to end up on the floor do not damage the floor. Sphera's SMART-top, a UV-cured PUR coating, protects the floor against staining.

Sphera has been tested on a selection of generic and healthcare specific stains according to international standard EN-ISO26987, simulating spillage of substances. Some are used regularly, like Betadine, professional detergents and (hand)disinfectants that are used to ensure a hygienic environment for patient and staff. Commonly used chemicals may vary from country to country.

Some substances like iodine, THF and sulphuric acid will affect all vinyl floors, including the premium products with an advanced surface finish, when left on the floor over a longer period of time. Colourants and chemicals used in medical and biochemical laboratories are very specific. The majority of installations do not require resistance against these type of chemicals. Contact Forbo when advice on specific stains is required.



50267 | celeste, 50269 | electric blue, 52267 | shimmer celeste, 50268 | blue sky

sphera® elite b+

THE NEXT STEP IN SUSTAINABLE DESIGN

Building on the trusted quality of Sphera, the new Sphera elite b+ takes our **commitment to people and planet** even further.

With **bio-based raw materials**, thoughtfully added recycled content, and nature-inspired colours, it combines beautiful design with enhanced environmental performance.

Backed by a 3rd party verified **Environmental Product Declaration (EPD)**, Sphera elite b+ gives you the confidence that your choice supports a brighter, more responsible future **without compromise**.



BIO-CIRCULAR PVC: SAME QUALITY, LOWER IMPACT

Bio-circular PVC has the exact same quality as **fossil-based PVC**, as the molecular structure is identical.

Mass Balance Principle

Because the chemical composition is the same, regular and bio-circular PVC are mixed in the production process. In bookkeeping the fossil and virgin material is segregated, the amount of bio-circular material required to produce the SQM of Sphera elite b+ is purchased.

Benefits 24% bio-circular raw materials, attributed by mass balance, not competing with the food chain and palm-oil free.

- Reduced Global Warming Potential, less CO₂ impact
- 24% bio-circular raw materials, attributed by mass balance, not competing with the food chain and palm-oil free.

HYGIENE, SAFETY IN HEALTHCARE

Part of the Sphera collection is specifically designed for the most sensitive environments. Sphera SD | EC provides permanent ESD control and ensures the highest hygienic properties. Sphera Element is also tested for use in cleanroom environments and suitable when electrostatic control is not needed.

Health and hygiene are crucial in healthcare facilities. Sensitive environments where intensive cleaning with aggressive disinfectants is part of the daily business require smart solutions. The conductive surface treatment is stain resistant and withstands widely used decontamination procedures. Also heavy traffic from beds, (motorized) wheelchairs, or equipment is most often daily business. Sphera Element and Sphera SD | EC are the durable, highly stable and indentation resistant solution. Sheet format requires less welding and ensures highest hygiene properties.

A clean and hygienic floor can contribute to the well-being of the patient. Especially areas where patients with fragile health are treated or nursed, a sterile environment is vital. When a floor is carrying microorganisms like fungi or bacteria, there is a potential transfer to other areas like medical devices, clothing or staff and finally to the patient. Special precautions are to be taken to reduce microbiological contamination risks to a minimum.

One of the things to pay attention to is that the materials utilised may not serve as a nutrient for microorganisms. Sphera has been tested according to ISO 846 to evaluate the behavior of the material. Two external institutes WFK and Fraunhofer IPA, show that Sphera does not contribute to the growth of bacteria and fungi.

Ensuring a safe environment is one of the most important concerns for sensitive healthcare environments. Static discharges can be unpleasant for patients and employees and sensitive medical devices can be negatively influenced by static

charges. Sphera SD | EC provides a trustworthy conductive flooring solution, effectively protecting the people and equipment against static events.

Sphera Element has been assessed by the Fraunhofer IPA institute on cleanroom suitability.





WHAT IS A HEALING ENVIRONMENT?

The essence of the modern vision on healthcare is creating a 'healing environment'. Meaning that the facilities and atmosphere within a care or cure environment can contribute to the well-being and recovery of the patients. Hospitality, homeliness, safety... Just a few fundamentals that are part of this trend.

Nowadays, there is a lot of attention for material use, colouring, lighting and art. That used to be different. Previously, functionality and management of the facility were the guiding motives in the design. Now the well-being of the patient and employee is at least as important. One way of

doing this is using the natural environment outside the facilities as an inspiration for the indoor design. Local colours and materials tend to create a homely and comfortable feeling for those who are inside the building.

HEALTHCARE, WELL-BEING & HEALING ENVIRONMENT

We emphasize the development of our products in relation to the quality of the indoor environment and the individual using and occupying the space. By focusing on safety, hygiene and well-being, it is our ambition to make a positive contribution to the indoor environment and the health of the individual. We do this by offering environmentally responsible products and by paying special attention to such aspects as allergy prevention, emissions and design of the floor coverings.

Forbo Sphera has very low emissions of $<10\mu\text{g}/\text{m}^3$ after 28 days, is phthalate free and, also, offers colourways with high light reflectance values (LRV) ensuring that it can contribute to a healthy indoor

environment. Its SMART-top surface treatment resists stains and is easy to clean ensuring safe and hygienic floors.

DESIGNING FOR DEMENTIA ENVIRONMENTS

Forbo are currently collaborating with a number of partners across the globe looking at the topic of Dementia design. Specifically we are trying to assist the design process so people can use our products to create better environments for patients and carers.

Age-related changes and impairments can make it more difficult to understand and navigate the built environment. Impairments may include sensory, mobility or cognitive (or sometimes a combination of them all) which can affect people's functioning, behavior, independence and ultimately, their quality of life.

Forbo has partnered with the Dementia Services Development Centre (DSDC) at the University of Stirling in Scotland, an international centre that draws on global research and practice, to identify which products can contribute to improving the quality of life for people living with dementia. Sphera Element has been approved for use in dementia environments.

DEMENTIA FRIENDLY FLOORING SELECTION

Tonal contrast is critical for materials to be seen against each other. Both DSDC and BS8300:2009 recommend a difference of 30 degrees of LRV between critical surfaces such as floors to walls and doors to walls. Adjoining flooring should be tonally similar to reduce the risk of falls. Flooring LRVs should be within 10 degrees of each other (less is better). Transition strips should match the tones of both surfaces with an ideal difference of no more than 3 degrees of LRV step difference. It is recommended that skirtings contrast with both the wall and the door where possible.

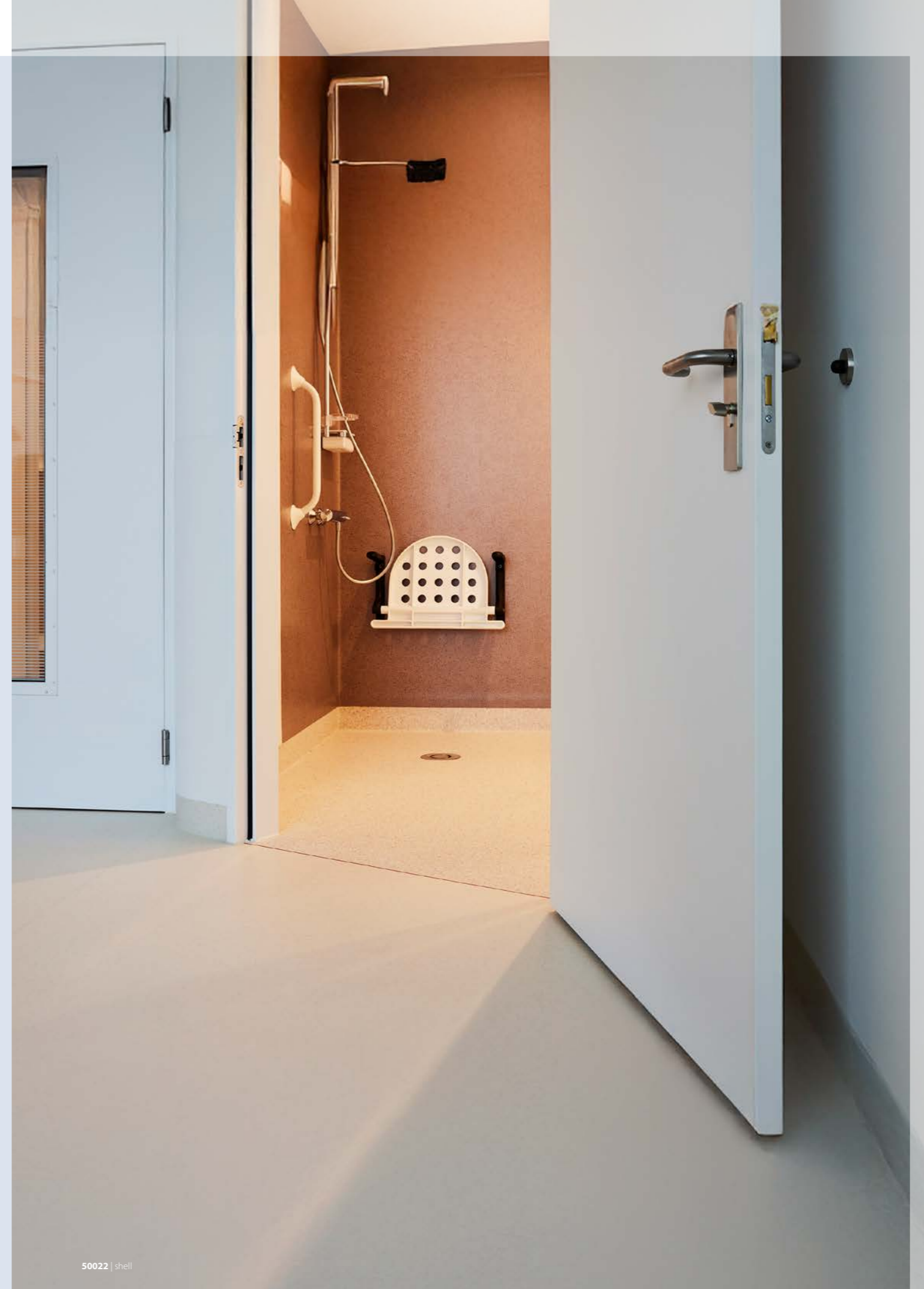
For areas that have specific requirements such as safety flooring or acoustic flooring, our team can offer help and advice on dementia friendly products to meet your needs, all designed to work with your visualization.

DSDC audit certificate

This service independently assesses care setting design for people with dementia. DSDC auditors will visit the building and carry out a detailed audit of all areas used by people with dementia and rate the design of a building against evidence-based research on dementia-friendly design.

The audit award categories are Gold, Silver, Bronze and Highly Commended.

The auditors' report will provide feedback on areas of design and how they rate. If the building receives a rating of Gold, Silver, Bronze or Highly Commended you will receive a certificate from the University of Stirling, DSDC that can be displayed for 3 years to recognise accreditation.



GOOD TO KNOW

Does dementia friendly flooring exist or is it specific to the individual person with dementia?

Dementia presents differently in each person but the evidence suggests there are common attributes in relation to floor design which helps or are of benefit to most. Therefore 'dementia-friendly' flooring is flooring which omits the common design features which have been identified through research as having a negative impact on most.

If considering tonal contrasts in adjacent areas, should we be using tones with a similar LRV? If yes, why can't contrasting colours be used?

Flooring in adjacent areas should at all times be tonally similar/provide tonal continuity of no more than 10 degrees of light reflectance value. Where tonal contrast is present which is greater than 10

degrees of light reflectance value there is a greater likelihood of the person with dementia perceiving a step (and high-stepping) thus increasing the risk of falls; or misinterpreting the flooring which can lead to confusion or can be perceived as a barrier thus reducing movement.

What is the maximum % in LRV terms that should be used as a contrast, and how does that translate in terms of colour?

The maximum permissible % change in tones for adjacent floors is 10 units of LRV. This is a numerical figure which represents 'tone'. This does not represent 'hue' or 'saturation' values of a colour and therefore when considering contrast, it is the tone which is relevant. This is supported in the BS8300: 2009 Accessible Standard.



What makes a certain design or colour of flooring look like water & why can't I use these?

Highly reflective or sparkly flooring is most likely to be perceived as water and therefore we recommend matt floor finishes and flooring without a speckle or sparkle.

Are lighter pastel colours better to use than dark colours? What about bright, stronger colours like reds or yellows? Can we use black? Should we use colours used in Nature? Are warmer colours better than blue/grey tones?

The DSDC product accreditation includes both dark, mid and light tones and the guidance in relation to how to make these more dementia-friendly is provided in the Do's and Don'ts technical literature.

Can contrasting colours be used for 'way finding'?

People with dementia experience a range of changes that can make wayfinding difficult, including spatial disorientation, related to spatial misperceptions; memory problems that make it difficult for people to remember where they are going; and problems with spatial and depth perception.

These can make it difficult for people to get around, go where they wish to, and find their way back again. Colours, can be used for wayfinding but we discourage the use of contrasting colours on the floor for wayfinding.

Should different colours be used for different areas of use?

Normal age related changes in the eye can make colour discrimination more difficult. Therefore, we don't recommend the use of different colours for different areas where this is intended to support the person with dementia to wayfind; the effectiveness is likely to be less on the person with dementia owing to the reduction in colour discrimination.

Where the design encourages more colours, the tonal contrast must be considered & carefully mapped to avoid increasing risk of falls where the contrast between adjoining floors is too great.

How should entrance matting be incorporated into designs? Does dark matting appear as a black hole to dementia sufferers?

Entrance matting should be designed in the same manner as any other adjacent floor. It should match tonally with the adjoining floor finishes. Dark matting is therefore a concern and can be perceived as a hole if the flooring on which it sits or is adjacent to, presents too much of a contrast.

Where the dark matting is adjacent to an equally dark floor, it is unlikely this will be seen and perceived as a hole.

What colours of furniture and soft furnishings work best with the flooring?

Flooring design needs to also consider the contrast between the wall and the floor (which should be more than 30 units of LRV) and the upholstery (which should also contrast). Increasing contrast between the wall and the floors can help the person with dementia better interpret the 3d aspects of the environment and aid movement and wayfinding.

Providing contrast between the upholstery and the flooring can help the person with dementia to accurately see the seat and position themselves accurately over it, thus reducing the likelihood of falling off. We also recommend that worktops / table tops contrast with the floor to aid placement of objects some of which can be a hazard such as a hot drink.

INSTALLATION, CLEANING & MAINTENANCE

A prerequisite for a floor that performs for many years is determined by the quality of the installation. Especially in healthcare environments, where heavy traffic from beds, (motorized) wheelchairs and equipment is daily business, the use of the right adhesive and tools is essential. In addition, hygienic solutions that are of the highest importance in healthcare environments require specific solutions like rounded corners, coving strips and sealed surfaces. Finally, the array of colours and designs as well as the eye for detail provided by multicoloured welding rods provide an aesthetically pleasing finishing.

CAN SPHERA WITHSTAND ALL THE WHEELED TRAFFIC IN A HOSPITAL?

Installation instructions

Sphera is a premium homogeneous vinyl that is strong enough to last many years of heavy traffic. Problems with damaging of the floor by e.g. wheels of hospital beds often occur when there is insufficient adhesive or when the instructions of the adhesive manufacturer are not followed. Other potential causes may be that the wheels are too small or sharp. A residual indentation that is too high can also be part of the problem. With a typical value of 0.03 mm, Sphera is amongst the best performing homogeneous vinyls.

WHAT IS THE BEST SOLUTION TO CREATE A HYGIENIC INSTALLATION?

Corners/covings

Rounded corners and covings make it easier to keep the floor clean. The Sphera collection is easy to form because of the absence of a glass fleece carrier. Professional installers know how to cove the material on site. In most cases, coving on site is preferable; it is a custom solution for every corner (also when not 90°), it is cheaper, no lead time to make preformed corners, always a similar batch as the rest of the floor. Coving strips, skirting and other accessories to create a neat and clean floor finish are recommended.



Cleaning & maintenance

When deciding on a floor, Forbo recommends to consider the expected amount of traffic, floor plan and maintenance planning. The location in the building can be a motivation to choose a specific colour and design. For example spaces where hygiene is of absolute importance can ask for light and plain colours, so one can see contaminations. In entrance areas where soiling is more prominent, darker colours

with more contrast in the design are more forgiving. Entrance flooring is fundamental to modern building design: an effective entrance system can stop up to 95% of dirt and moisture being walked into a building, minimising maintenance costs, protecting the interior flooring and preventing slips. With both textile (Coral) and rigid (Nuway) Entrance Systems in our portfolio, we can offer an entrance solution for every situation. Contact Forbo to obtain tailored advice.



Sphera SD 550000 | white, Sphera SD 550036 | water

UNDER CONTROL PORTFOLIO

Within the wide range of Forbo products, there are several collections which offer a solution for the highest requirements and needs of controlled environments. Colorex and Sphera SD | EC form the base of the Forbo's **Under Control** portfolio.

The installation and final finish of the floor will have significant impact on the floors performance and lifespan. Forbo has developed a series of products and pre-formed accessories to ensure the final result will keep functioning for the protection of your product.

Accessories

In hygiene sensitive areas, high quality finishes are a must from a hygienic point of view. The use of preformed corners and skirtings provides the perfect solution for water-tight floor-to-wall transitions which are perfectly hygienic and aesthetically pleasing. Our integrated coving system for Colorex creates a perfect seal for these critical areas.

Preformed corners with a radius linked to the size of cleaning pads found on most commercial cleaning machines. This ensures that no sharp corners are created that would prove difficult to clean. Preformed outer corners are prevented from tearing thanks to their because of their special construction. The inner reinforcement prevents the outer corners tearing or breaking due to high mechanical pressure, e.g. the rotation of a cleaning machine.

The accessories shown on the right are frequently used accessories. More options are available, please ask your local Forbo contact or visit our website for the complete offer.

eurocol

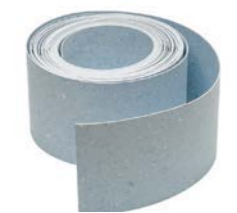
Installation of controlled environment flooring can require the use of specific accessories such as conductive adhesive and copper strips, as offered by Eurocol or other high quality brands.

coral® & nuway®

Entrance flooring systems such as Coral and Nuway are not meant to be installed in controlled environments, but they are essential for almost every



Inner and outer corners (Colorex and Sphera SD | EC)



Skirting (Colorex only)

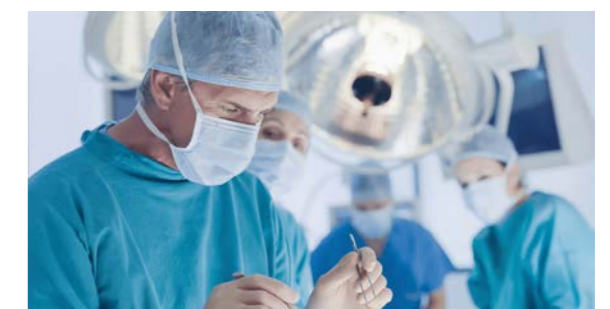


Colour matching welding rod (Colorex and Sphera SD | EC)



Ventilated skirting (Colorex and Sphera SD | EC)

building. Soil and dirt can inhibit the conductive properties of ESD flooring. Capturing dirt in an early stage by the use of entrance flooring can be part of a contamination control plan for facilities with strict hygienic requirements. Entrance flooring can even be used for internal and external entrance areas where heavy duty loads and intense pedestrian and/or wheeled traffic are to be catered.



OTHER FLOORING SOLUTIONS FOR HEALTHCARE

Forbo offers a comprehensive portfolio of flooring solutions designed to meet the demanding hygiene, safety and performance standards of healthcare environments.



Marmoleum

Marmoleum helps create healthier indoor spaces by naturally inhibiting the growth and spread of bacteria such as MRSA, Norovirus and C. difficile. Its unique Topshield Pro surface finish reduces soiling and resists staining from hand disinfectants, making it ideal for hospital environments.

Approved by Allergy UK, Marmoleum does not harbour house dust mites thanks to its smooth, easy-to-clean surface. Marmoleum 2.0 mm and 2.5 mm are independently EPD-confirmed as CO₂ neutral (cradle-to-gate), and the range holds 12 independent ecolabels more than any other floor covering worldwide.



Colorex – static control flooring

Colorex conductive flooring provides the highest hygiene standards with its dense, pore-free surface while meeting strict ESD and cleanroom requirements. It prevents electrostatic discharge that could interfere with sensitive medical equipment. Highly stain resistant and designed to withstand intensive cleaning and disinfection cycles, Colorex combines technical performance with aesthetics and is available in 21 colours.



Sarlon – Acoustic Vinyl Sheet

With over 30 years of expertise and more than 100 million m² installed worldwide, Sarlon is a trusted acoustic solution for healthcare settings.

Phthalate-free and available in a wide range of colours and designs, Sarlon reduces impact sound by 15–19 dB, making it ideal for waiting areas and circulation spaces where noise reduction improves patient comfort. Easy to clean and maintain, it offers reliable, long-term performance.



Step – safety vinyl sheet

Designed for areas prone to spillages, Step safety flooring offers reliable slip resistance (R10–R12) to enhance safety for patients and staff.

The PUR Pearl finish improves cleanability and resists scuff marks, while particles embedded in the wear layer ensure sustainable, lifetime slip resistance. Step is available in over 60 contemporary wood and stone designs.



Eternal – general purpose vinyl sheet

Eternal is a durable and versatile flooring solution ideal for general healthcare areas such as waiting rooms and public spaces.

Available in realistic wood, stone and abstract designs — including digitally printed visuals — Eternal combines practicality with inspiring aesthetics.



Allura – luxury vinyl tiles

Allura luxury vinyl tiles combine premium design with durability, offering a high-quality aesthetic solution for healthcare spaces where appearance and performance go hand in hand.



50955 | juniper grey, 50953 | misty veil

Forbo Flooring Systems is part of the Forbo Group, a global leader in flooring and movement systems, and offers a full range of flooring products for both commercial and residential markets. High quality linoleum, vinyl, textile, flocked and entrance flooring products combine functionality, colour and design, offering you total flooring solutions for any environment.

Find us on



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creating better environments



FLOORING SYSTEMS