



Where people meet

nora[®] rubber flooring for public buildings

nora[®]
by **Interface**[®]

Robust by origin – Rubber



Inspired by nature, perfected by technology

Nature often provides the best ideas. This also applies to nora floor coverings, which are made of high-quality natural and industrial rubber. In addition, minerals from natural deposits and other components as vibrant colour pigments are added, forming the basis for an extremely robust yet permanently resilient classic "Made in Germany".

The special feature of rubber is its inherent elasticity. Vulcanisation makes the floor coverings permanently elastic, helping their unique functionality and aesthetics last for decades to come. The nora complete system is no less unique. With a comprehensive range of

accessories and unparalleled service, it delivers both consistent and cross-functional design across all surfaces, stairs and levels.



Creating attractive environments in public buildings

Public buildings are part of our daily lives. Large numbers of people spend time in places such as airports, museums and libraries every day. It is therefore important to create an environment that is both appealing and functional in such spaces. And that begins with the floor.

The floor covering must, of course, meet a number of criteria. It also has to fulfil the highest standards. Above all, it must be able to withstand the large number of people who visit public buildings. It must be durable, comfortable, ergonomic and easy to maintain and clean. Other critical factors in the

selection of a suitable floor covering for a public building include its aesthetics and the effect it has on the indoor air quality.

This document provides you with an introduction to nora floor coverings.



Cultural center de Warande, Turnhout, Belgium | © Bart Gosselin

Your long-term partner for an appealing environment

Architects, builders, users and processors worldwide rely on nora solutions when it comes to creating healthy and aesthetically pleasing interior design. As the market leader of unique rubber flooring, nora systems GmbH develops and produces premium quality "Made in Germany".

We consistently follow the vision of creating products with outstanding and lasting benefits for our customers. That's why we put all our innovation spirit into our product development. For us, innovation means constant learning – from our customers, the markets and ecological development.

We consider it our responsibility to think and act holistically and in a future-oriented way – for this we have enjoyed the trust of our customers since 1950.

Contents

- 06** Sustainability

- 08** Durability & Longevity

- 10** Ecology & Economy

- 12** Custom design options

- 14** Acoustics

- 16** Ergonomics

- 18** Safety

- 20** Suitability for reception areas

- 22** System solutions

Top ratings for environmental protection

A pleasant environment is very important for public buildings such as airports and museums. Important foundations are laid and suitable building materials are sought for such buildings right from the planning stage. The floor takes up a large part of the room, so selecting the right floor covering is essential. nora rubber floor coverings have extremely low-emissions and so contribute towards high indoor air quality, which is one of many important prerequisites for a positive indoor space.

nora floor coverings also offer a long service life. norament floor coverings have a service life of 50 years, while noraplan and noracare floor coverings have a life of 30 years. .



Our carbon plan is simple: Avoid. Reduce. Store. Inspire.

We have Science Based Targets to achieve by 2030, and a goal to be a carbon negative enterprise by 2040, both without offsets. We will continue to avoid, reduce, and store as much carbon as we can in the manufacture of our products, our business operations, and our supply chain. And we continue to inspire industry and partner with others to create a ripple effect, accelerating collective action and direct impacts.

Eco-Labels



Details on eco-labels, approvals and Environmental Product Declarations can be found at www.nora.com/certificates.

Memberships and other certifications



City Library Rottenburg, Germany | © Elmar Witt



At home in the public sphere

Public buildings such as airports and railway stations are subject to loads from a large amount of traffic every day. This traffic includes people, suitcase rollers, transport vehicles and caddies. The durability and wear resistance of the flooring must therefore fulfil the highest standards. However, the appearance and design of the floor covering also play a major role and these must be taken into account when choosing the best flooring solution. nora rubber floor coverings are extremely durable and long-lasting. They meet the highest requirements and offer an impressively wide range of designs and colours. Even in the event of a fire, the advantages of nora rubber floor coverings are apparent, as they are not only flame-retardant (EN 13501), but also toxicologically safe in the event of fire (DIN 53436).

nora floor coverings are made from rubber, which is a high-performance raw material. The dense, closed surfaces of norament and noraplan are extremely robust, hard-wearing and durable. This makes them ideal for public buildings and ensures a high-quality appearance for many decades. An example of this can be seen at Shanghai Pudong Airport, where nora floor coverings have been installed since 1998. In 2019, a record quantity (over 200,000 square metres) of floor coverings were installed at this airport.

“We wanted a high-end aesthetic yet extremely durable flooring surface that would both impress and stand up to our member traffic.”

Joey Farebrother, Engineering Coordinator,
City of Fort Saskatchewan

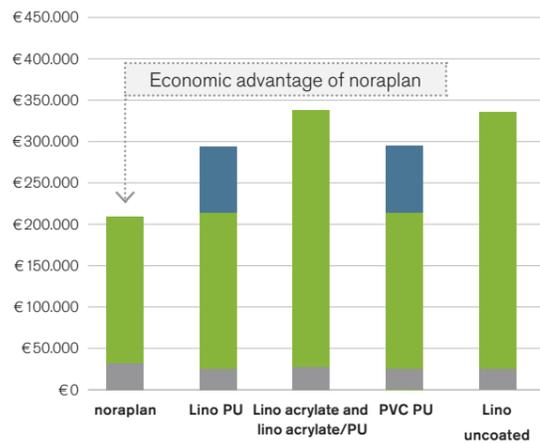
Easy to clean and maintain

Life-cycle costs (LCC) are a crucial consideration when selecting floor coverings. The majority of costs are incurred while the flooring is in use and so the largest potential for savings is during this period. The costs of cleaning, maintenance and any recurrent renovation measures are also significant. nora floor coverings' durability and low maintenance costs have a positive effect on LCC analyses – particularly for public buildings that are used for long periods of time and have high passenger traffic (e. g. airports).

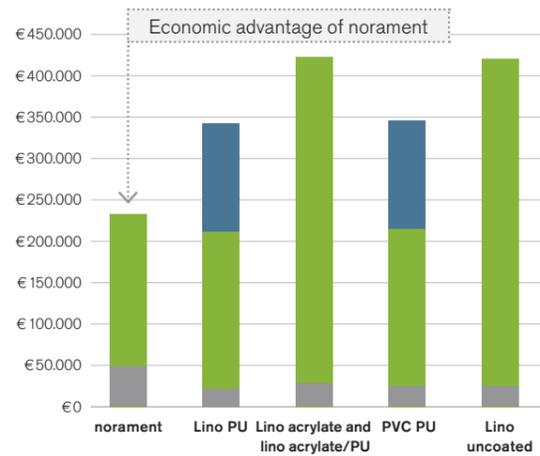
“With nora, we don't have to invest in longterm maintenance because it can be so easily maintained with just light detergent and water.”

Neysha Mejia, Project Manager at Pillar Property Management, Bronx - NY

Life-cycle cost (LCC) comparison: noraplan®



Life-cycle cost (LCC) comparison: norament®



Investment (Grey), Operating and maintenance costs (Green), Surface refurbishment costs (Blue)

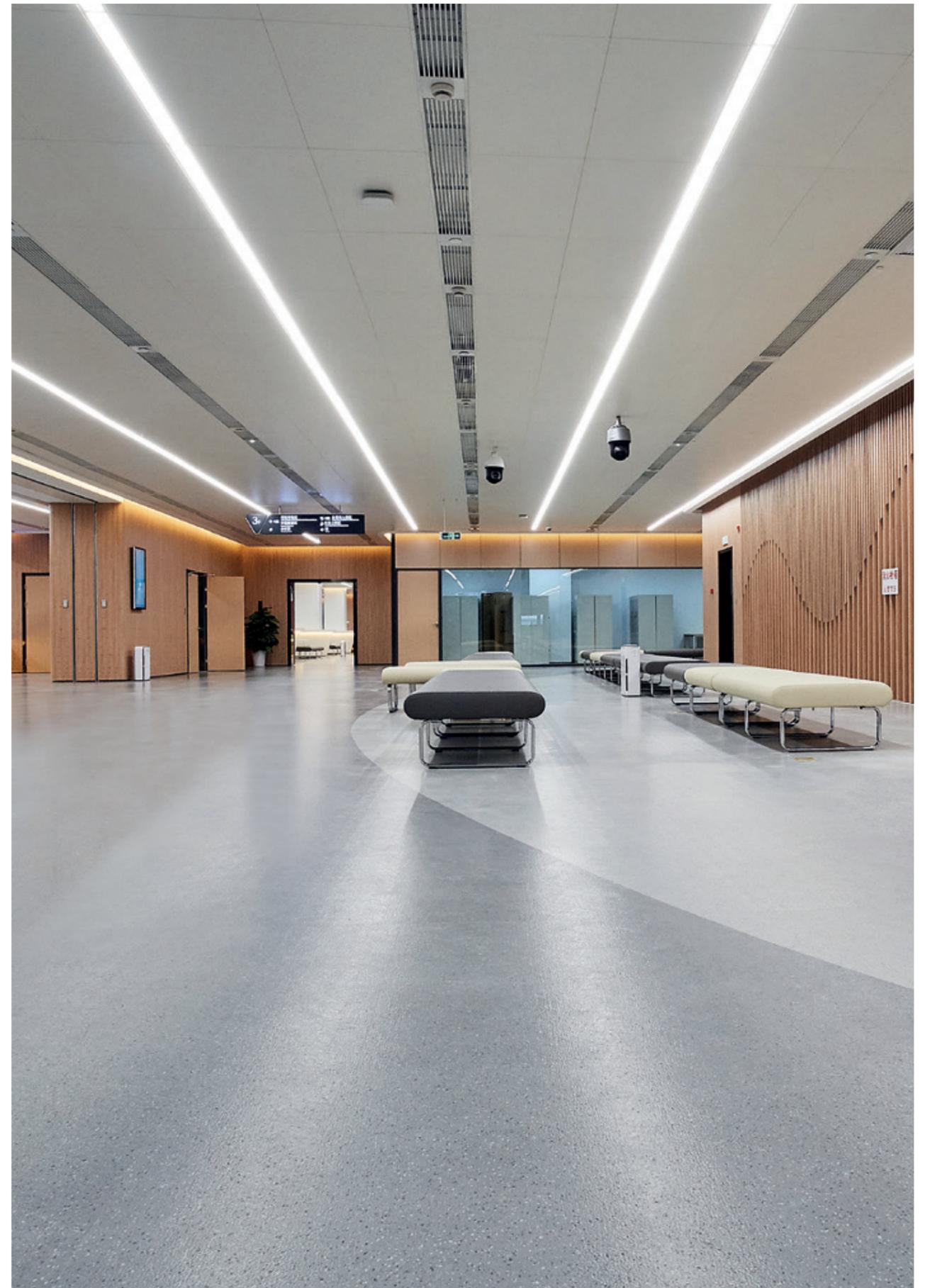
Presumed cleaning scenario for 1,000 m² area and 15 years.

Details and source: nora systems GmbH

noraplan: typical scenario for areas with average stress, such as a kindergarten.

norament: typical scenario for areas with heavy dirt influx and high mechanical load, for example in the school foyer.

With foresight and forward planning, a lot of money can be saved in the maintenance of public buildings. We will be happy to create your individual life-cycle cost analysis and show you potential savings specific to the building premises.



Hangzhou Xiaoshan District Administrative Service Center, China | © nora



Escher Museum, Den Haag, Netherlands | © CR-BEELDWERKEN

Attract and guide your visitors

Creative design concepts can turn public buildings into unique environments. Inlays offer a wide range of options for highlighting zones within traffic areas. nora 4you offers unique, customisable products that give public buildings a special character.

Inlays

Inlays are a simple way to implement sophisticated orientation and guidance systems, symbols and logos the way you envisage them and the way you want them.

Modular installation

norament and noraplan allow you to combine tiles and planks in different formats, colours and designs. This creates attractive environments in which people enjoy spending time.

Custom colours

At over 300 shades, our standard range of colours is exceptionally large. If you would like a different shade for your project, we will be happy to develop a custom colour. We can implement almost any colour you want using samples and colour codes (NCS, RAL, Pantone).



National Technical Library, Prague, Czech Republic | © Andrea Lhotakowa



Central Library Düsseldorf, Germany | © Elmar Witt

See the result now?

You won't know how design works in spaces until you've seen it. In the nora interior design studio, rooms can be individually and virtually redesigned. Experience a wide variety of colours and designs in real spaces. Or take a picture of your room, upload it and virtually install any nora rubber flooring in your spaces. You can also import the selected floor into your CAD or 3D modeling program. Further information can be found on our website.



Theatre for Lower Saxony, Hildesheim, Germany | © Elmar Witt

Less noise makes for a more pleasant environment

Good acoustics create rooms in which people feel comfortable. Too much noise is unsettling and causes stress levels to rise. Good room acoustics are crucial in public buildings in which many people spend time every day, such as museums. The aim of acoustic measures is to minimise unwanted sources of noise. It is not only sound-insulation elements in walls and ceilings that improve room acoustics; floor coverings can also make a positive contribution.

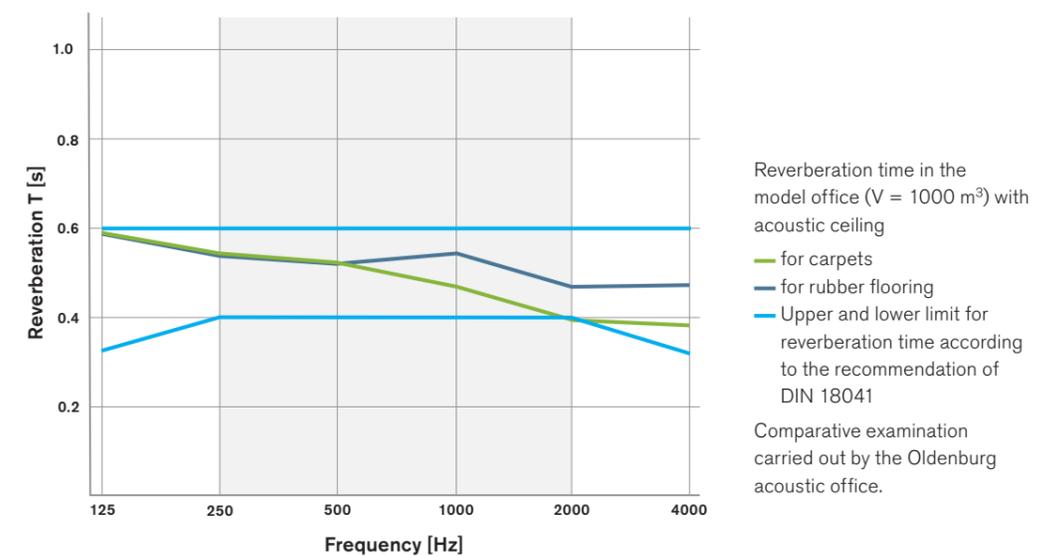
Reduced noise generation

The long-lasting elasticity of nora floor coverings reduces the noise generated by footfall and wheels more efficiently than harder materials (by up to 20 dB).

Reverberation times

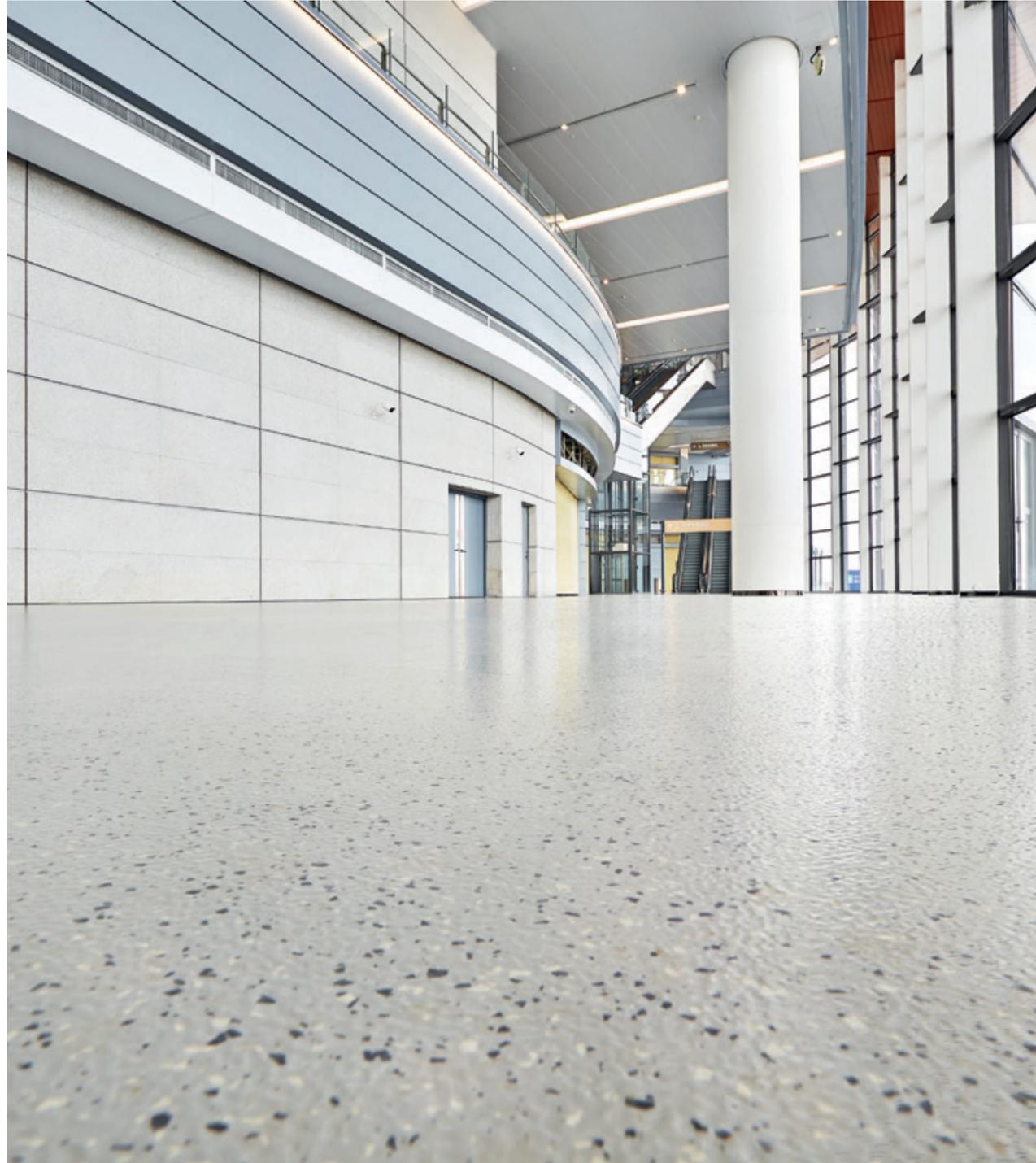
In the case of rubber and textile coverings, the reverberation times in a room equipped with an acoustic ceiling in the relevant frequency range are comparable and correspond, among other things, to the recommendation of DIN 18041 (see comparative study by the Oldenburg acoustic office).

Room acoustics: expected reverberation times

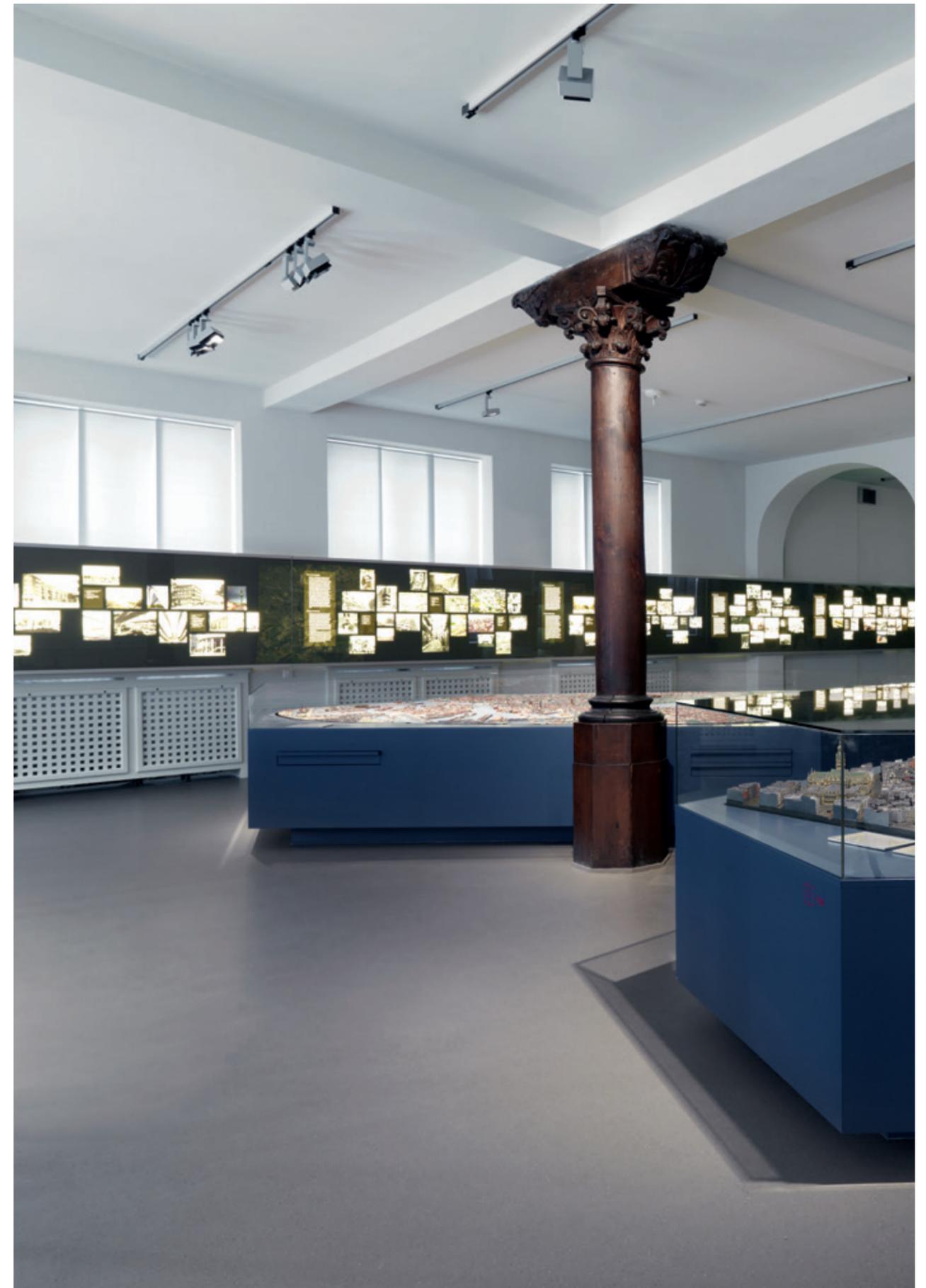


For a pleasant ergonomic environment

The long-lasting elasticity of rubber offers acoustic advantages and ensures a pleasant ergonomic environment. A floor covering that is comfortable to stand and walk on contributes to the well-being of all those who work or spend time in public buildings. The use of such coverings can significantly reduce back pain, joint pain and fatigue.



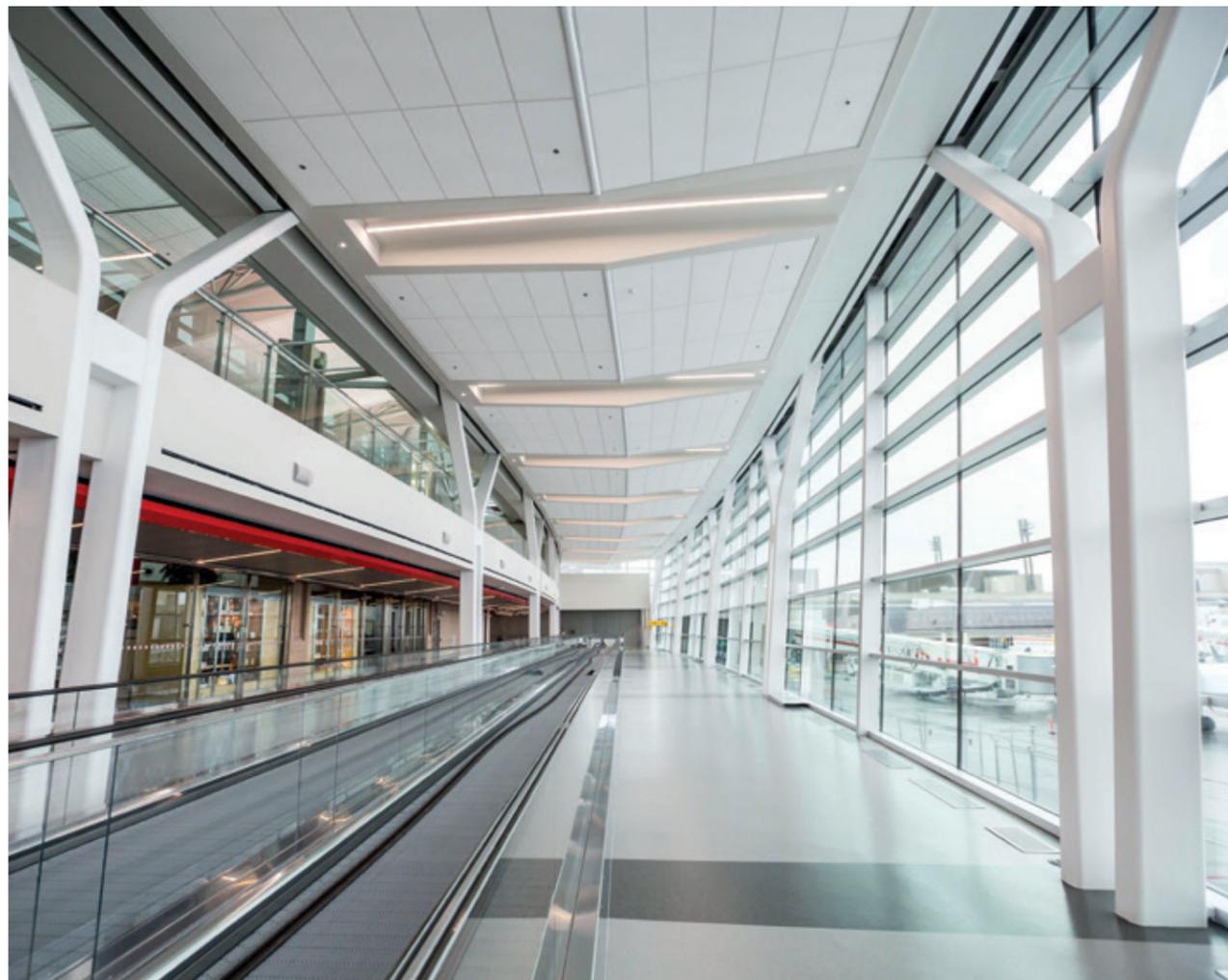
Hong Kong-Zhuhai-Macao Bridge, China | © nora



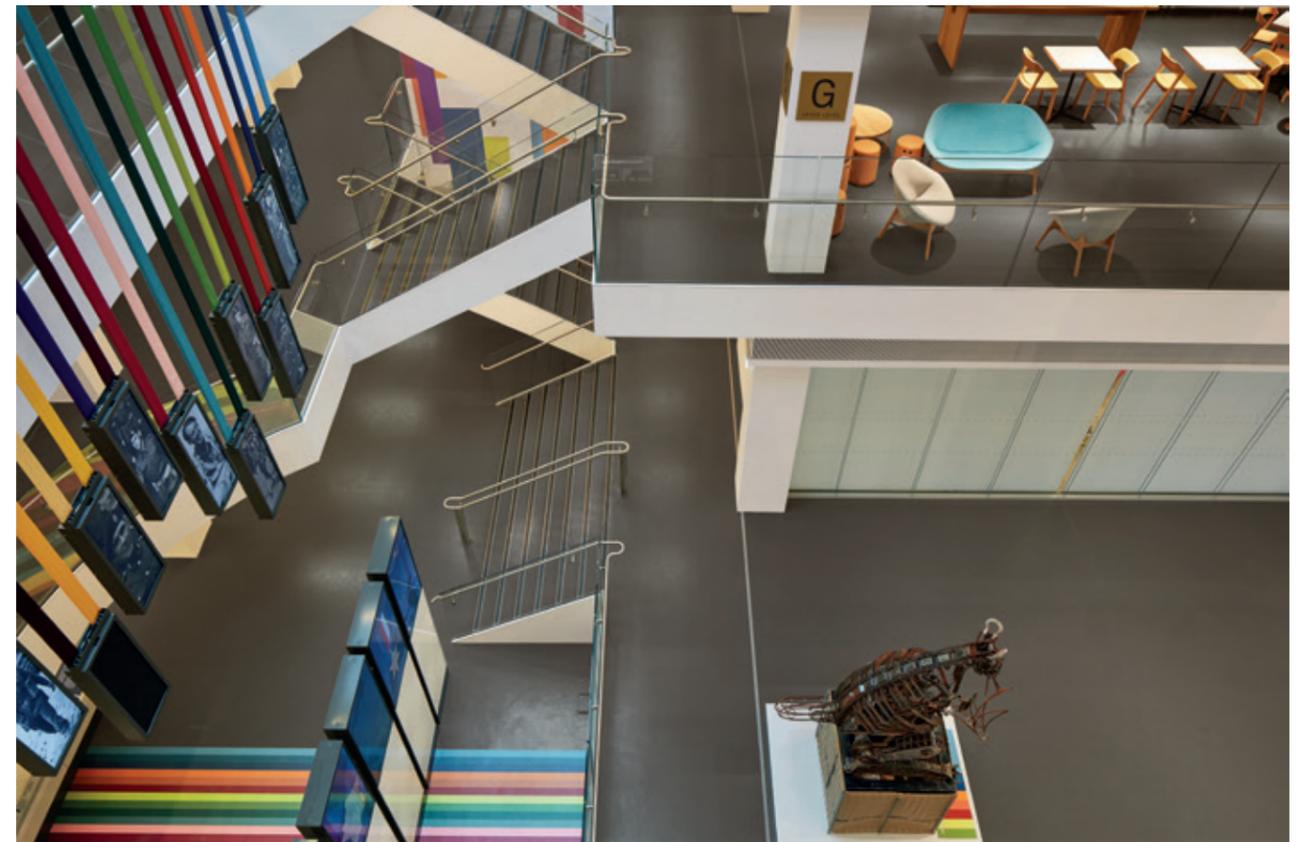
Museum for Hamburg history, Hamburg, Germany | © Oliver Heinemann

Safety at all times

Fire protection and toxicological safety in the event of a fire are crucial in public buildings. Selecting the right building materials is essential for fire protection in buildings such as airports, museums and theatres. nora rubber floorings offer many advantages in this respect. They are flame-retardant in accordance with EN 13501 and are also considered toxicologically safe in the rare event of a fire in accordance with the German DIN 53436 standard.



YYC Calgary International Airport, Canada | © Courtesy of Calgary Airport Authority

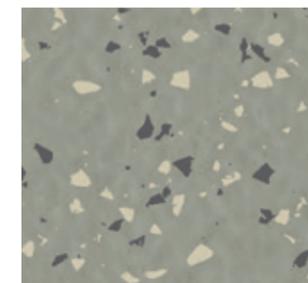


National Army Museum, Chelsea, UK | © Paul Raftery

Millions of people spend time in public buildings every day. Whether they are travellers on their way to their next connection or visitors to museums and theatres, their safety is top priority. Some of the most common injuries are due to slippage.

nora rubber floorings offer slip resistance ratings up to R11 for use according to the area of application. nora rubber floorings help to increase slip resistance and with it safety.

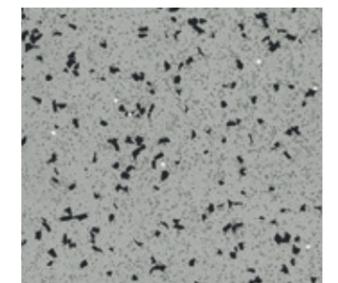
The wide range of surfaces ensures that various slip resistance requirements can be met. This is demonstrated in the following examples:



R9 assessment group
norament and noraplan
standard floor coverings



R10 assessment group
e.g. norament 926 arago,
norament 926 grano (cubic structure)



R11 assessment group
noraplan ultra grip

Please refer to our technical data sheets for other floorings with slip resistance R9, R10 or R 11.

First impressions count

First impressions count on any visit to public spaces such as the reception and visiting areas of theatres, museums, etc. Design and aesthetics play a particularly important role. The floors must, of course, be easy to clean and, due to the high level of traffic in these areas, very hard-wearing. nora floor system solutions' wide colour spectrum and inlays make it possible to realise striking custom designs. nora floor coverings offer a unique combination of design and functionality.



Tourist-Information Karlsruhe, Germany | © DITTEL ARCHITEKTEN GMBH

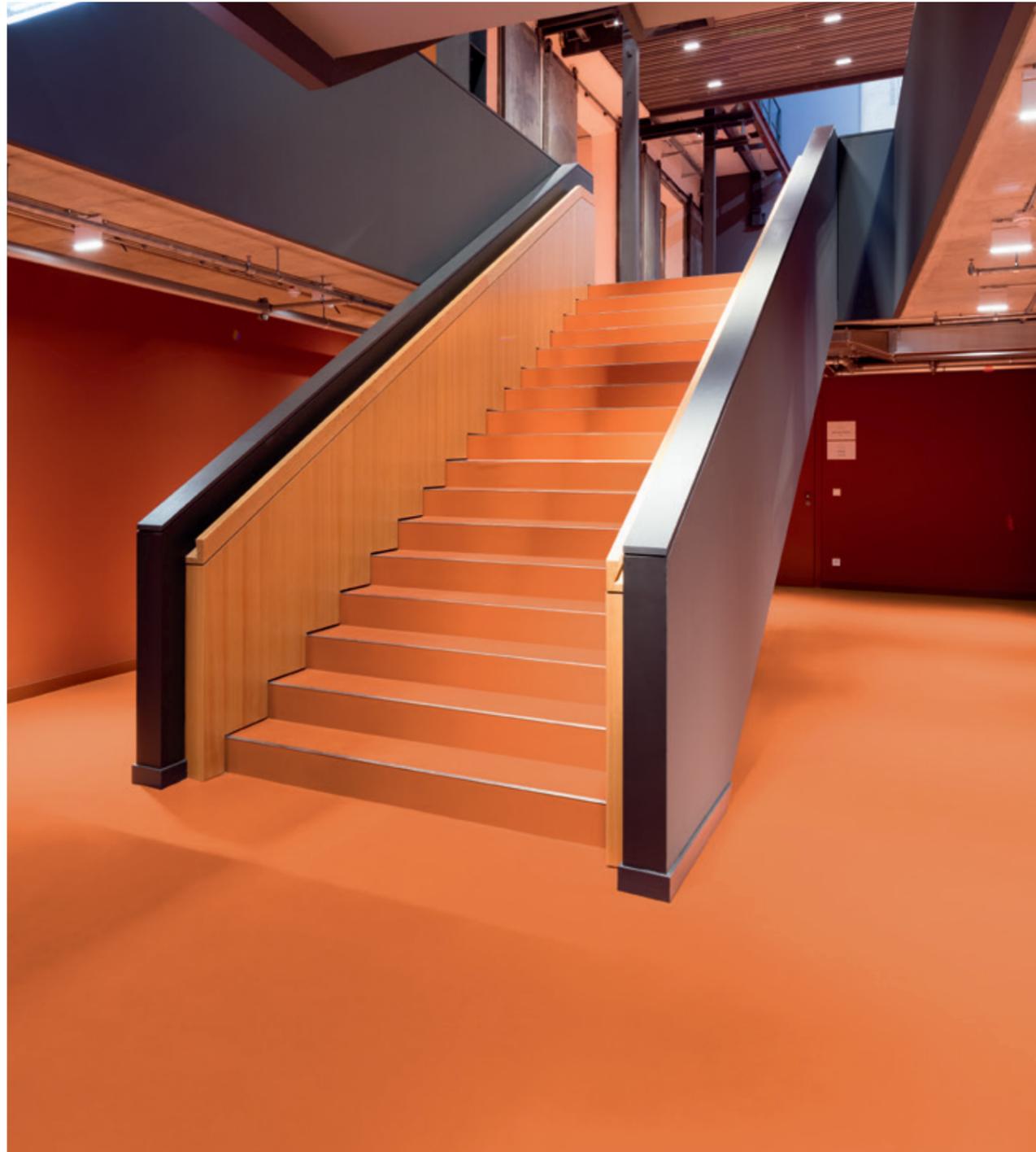


Zibo Science and Technology Museum, China | © nora

The designers of the Zibo Science and Technology Museum in China selected over ten different bright colours from the standard range of norament 926 grano and norament 926 satura designs. The various colours were used to identify the different areas of the museum and reflect their respective characters. The areas that specialised in technology used various shades of grey, while the children's areas were more colourful, using green, yellow and blue. In one area, stylish inlays were used to skilfully showcase the different floor colours and character of the museum.

A single multifunctional design

nora floor coverings make it possible to implement uniform design solutions. nora rubber floor coverings are available in different thicknesses, as tiles or in rolls, and with various functional properties (from extra slip resistance to outstanding acoustic properties). Everything from the stairtread to the matching skirting looks as if it has been cast from a single mould.



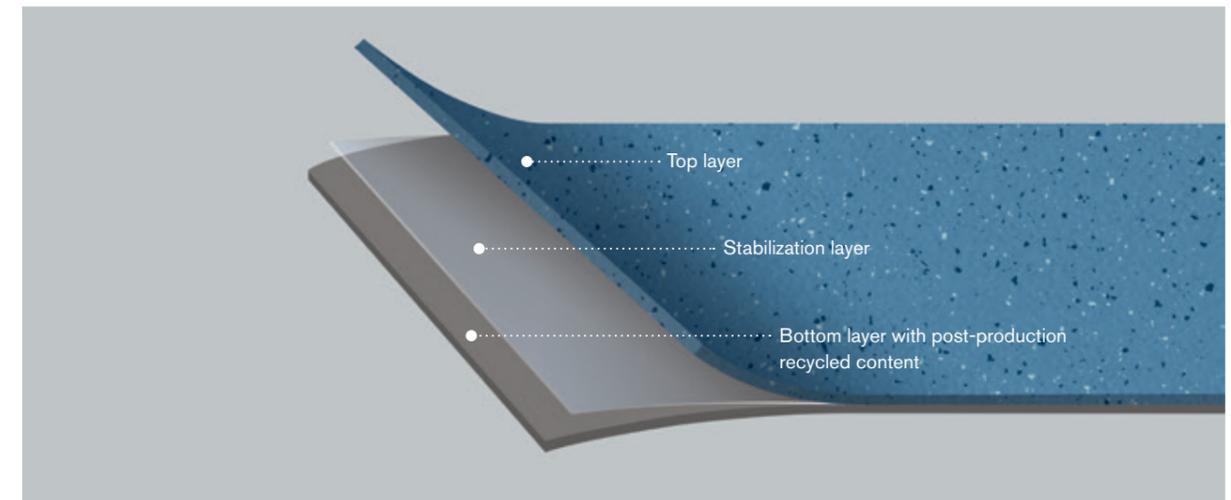
Barenboim-Said Academy, Berlin, Germany | © Dirk Wilhelmy

Future-proof installation

Quality work with a system – nora offers you different installation solutions that have one thing in common – you don't have to worry about anything.

Removable floor covering: norament® 975 LL

This rubber floor covering can be quickly installed using a suitable tackifier and can be used as soon as it has been laid. It can also be removed and reused, which allows flexible use in a range of applications. It is suitable for new and renovated buildings as well as raised-access floors, temporary flooring and installation on existing old coverings. This product is made using recycled raw materials.



Quick installation system: nora nTx

nora nTx is a unique technology for the professional installation of nora rubber floor coverings. It consists of our noraplan and norament standard floor coverings, which are equipped with an adhesive backing. The flooring is cleanly and safely installed in only a few steps and immediately ready for use. This can be done on concrete or cement screed subfloors typical in new construction, as well as over other existing floor coverings. Even increased residual moisture in the concrete or screed is no problem.



Reliable installation result



Immediate usability



High efficiency



For all types of subfloors

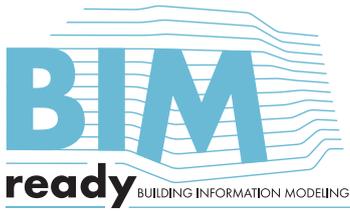


Use with residual moisture



Covering-over-covering installation





Smart Navigators to the perfect floor



www.nora.com/flooringfinder



www.nora.com/roomdesigner

Photo page 2/3: © CR-BEELDWERKEN

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