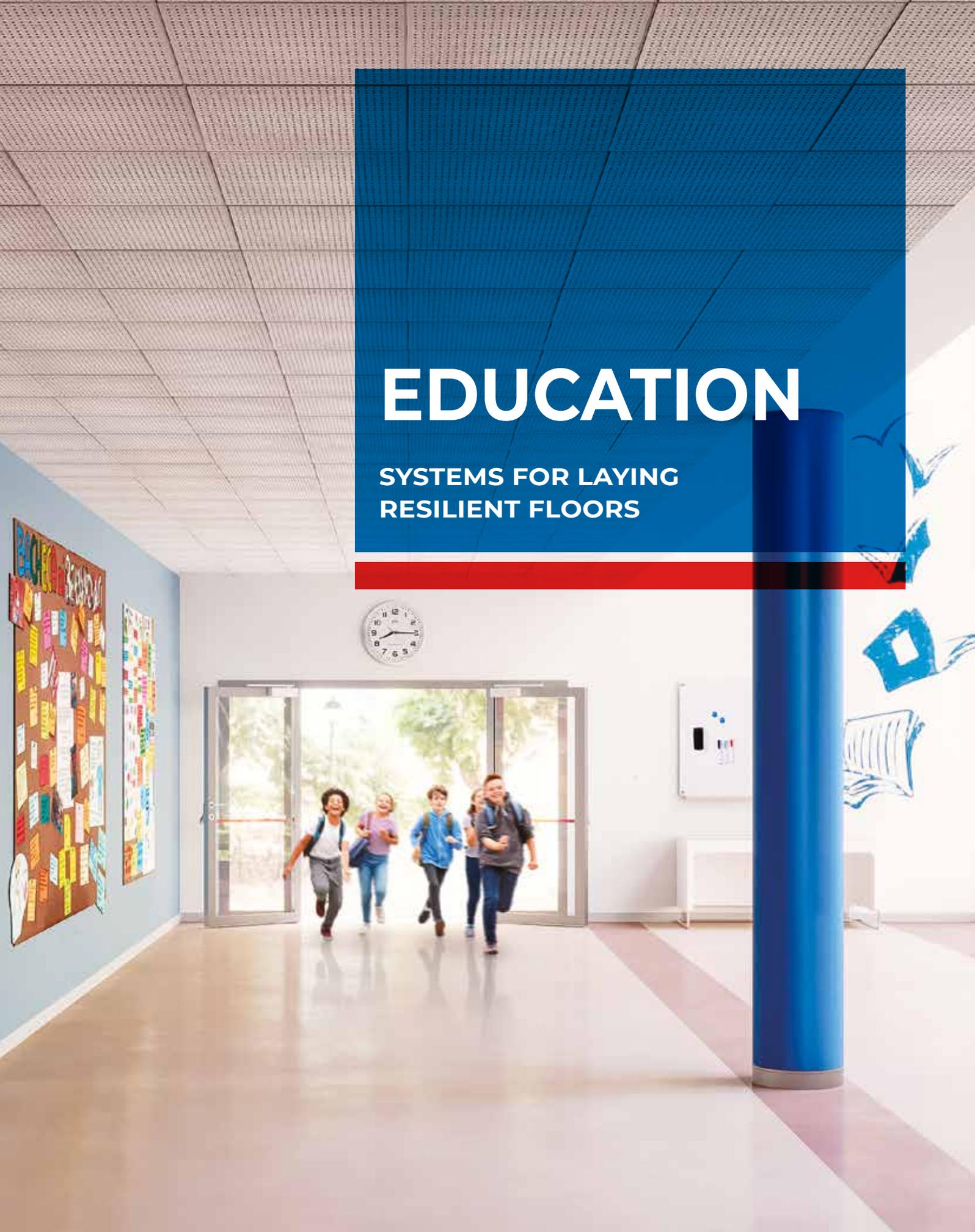


EDUCATION

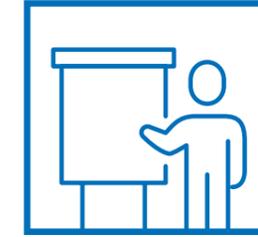
SYSTEMS FOR LAYING
RESILIENT FLOORS



EDUCATION

SYSTEMS FOR LAYING RESILIENT FLOORS

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PAG. 6	CORRIDORS
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When **designing school buildings**, choosing the right flooring and wall coverings is very important in order for them to meet a number of different requirements.

Their main characteristics are **resistance** and **hygiene**. At the same time, installation systems have to play a part in making surroundings **comfortable, functional** and suitable for the latest needs in educational establishments, from nurseries to universities. What is more, they need to be created in such a way that they **reduce maintenance costs** and their **impact on the environment** as much as possible. Resilient and textile materials are often adopted by designers for flooring and wall coverings for various spaces and areas in school buildings. **Mapei** has extensive experience and expertise in this particular field and has a portfolio of specific installation systems for these types of materials, and is a **reliable partner for their design and installation for even the most complex applications**.



Receptions and communal areas

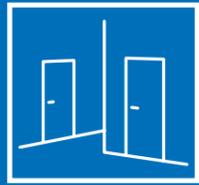
Atriums and communal areas are highly representative of spaces in school buildings: they are the first areas where students, parents, external visitors and school personnel meet and interact. It is very important, therefore, to choose the most appropriate flooring and wall covering to guarantee maximum comfort, safety and resistance to intense foot traffic, as well as ensuring their surfaces that are easy to clean and maintain. To meet these design requirements, Mapei has the most extensive range of products with the required mechanical characteristics for creating and levelling off sublayers, adhesives and installation systems for any type of resilient flooring, LVT and textiles and protective finishes to improve the non-slip properties of surfaces.

- 1 Topcem Pronto
- 2 Eco Prim T Easy
- 3 Ultraplan Xtra
- 4 Ultrabond Eco Fast Track
- 5 Resilient flooring



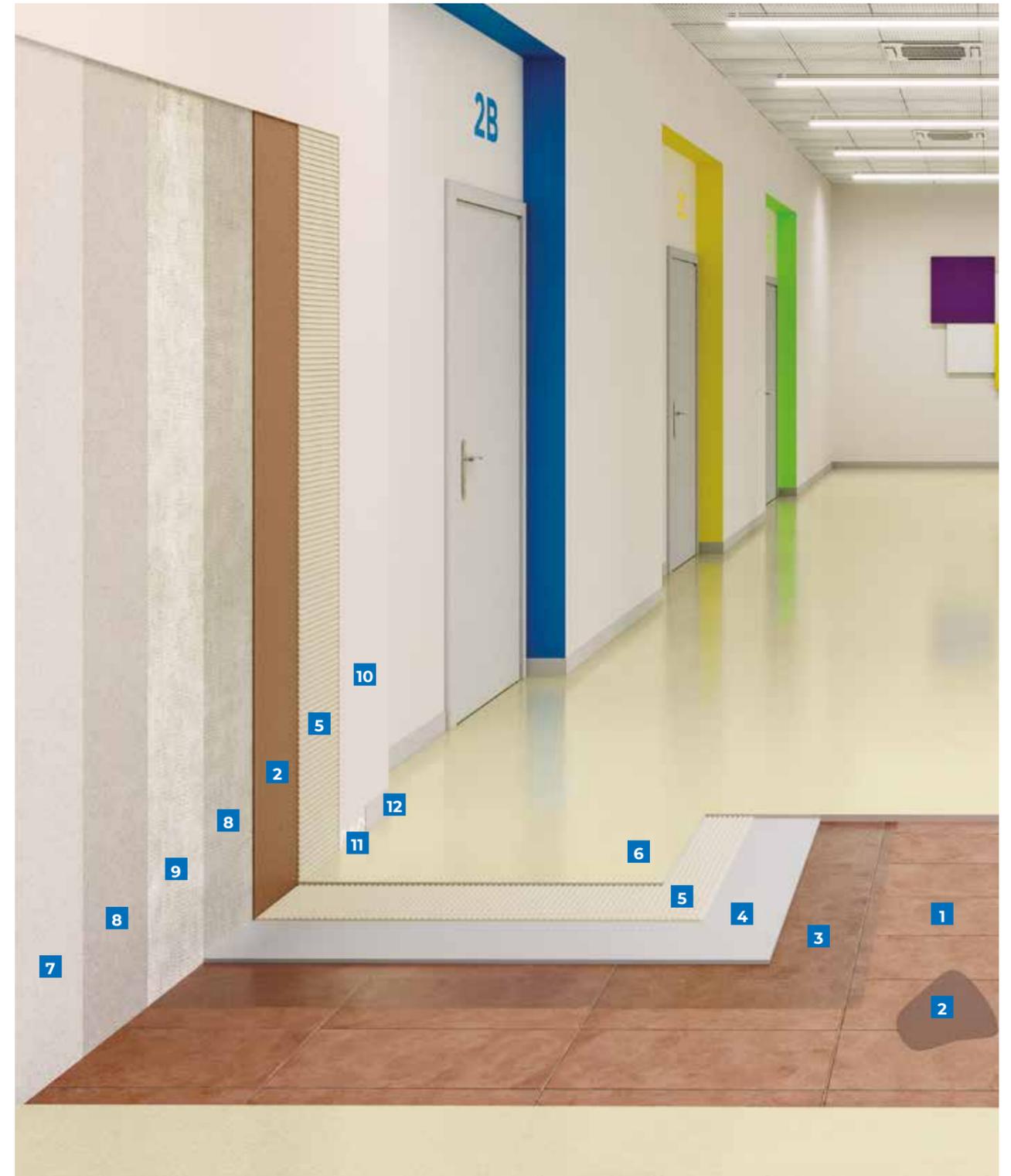


- 1** Concrete
- 2** Eco Prim T Pro
- 3** Ultraplan Contract
- 4** Ultrabond Eco 530
- 5** Linoleum flooring



Corridors

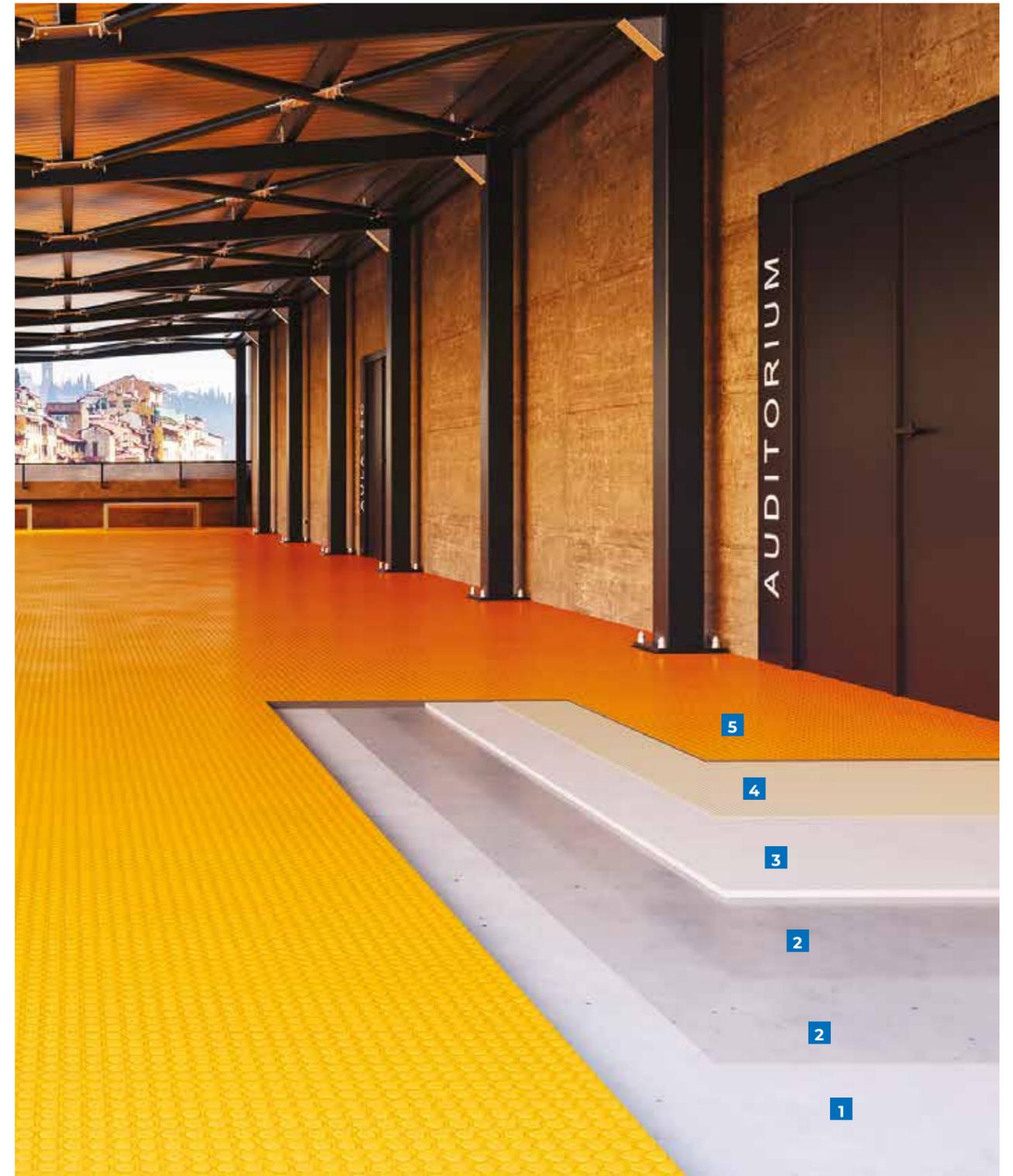
High resistance to foot traffic, wear, scratches and stains and surfaces that are easy to maintain to reduce costs: these are the characteristics to look for when choosing flooring installed in corridors. To achieve maximum comfort, “seamless” flooring is the ideal solution. For this kind of setting, too, designers often opt for resilient flooring and wall coverings. These types of materials must be installed using systems that guarantee maximum functionality and durability over time.



- | | |
|-------------------------------|-------------------------------|
| 1 Old ceramic flooring | 7 Render |
| 2 Planipatch Xtra | 8 Mapewrap EQ Adhesive |
| 3 Eco Prim T Plus | 9 Mapewrap EQ Net |
| 4 Ultraplan Renovation | 10 PVC wall covering |
| 5 Ultrabond 333 | 11 Ultrabond Eco 575 |
| 6 Resilient flooring | 12 PVC profile |



- | | |
|---|----------------------------|
| 1 Concrete with high residual moisture | 8 Plasterboard |
| 2 Control joint | 9 Eco Prim T Pro |
| 3 Planipatch + Latex Plus | 10 Adesilex MT32 |
| 4 Mapeproof Primer | 11 Vinyl wallpaper |
| 5 Ultraplan | 12 Undercove |
| 6 Ultrabond Eco V4SP | 13 Mapecontact Plus |
| 7 Resilient flooring | 14 Cove |

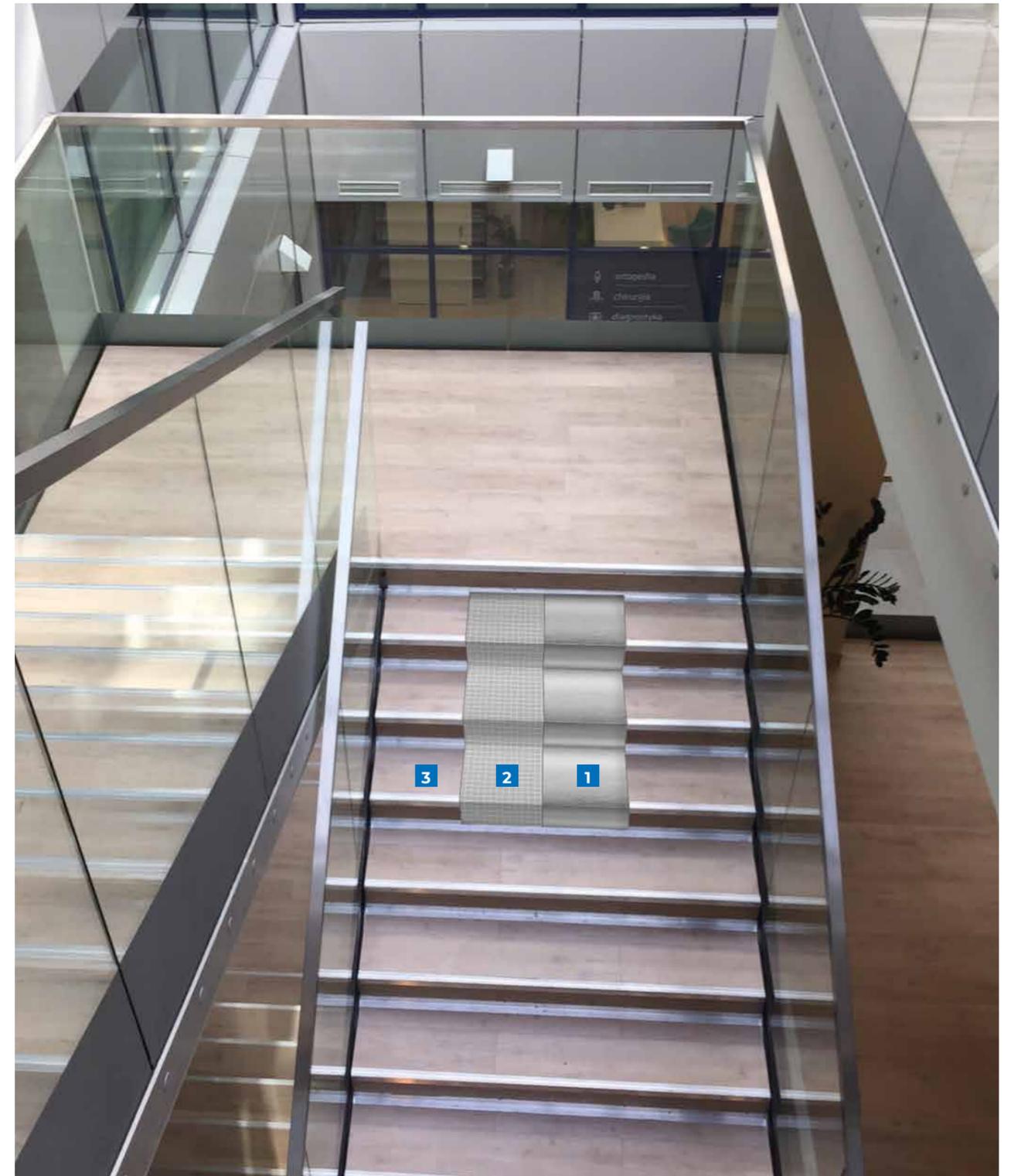


- | |
|--------------------------|
| 1 Screed |
| 2 Primer MF |
| 3 Planex HR |
| 4 Adesilex G20 |
| 5 Rubber flooring |



Steps and stairs

Stairs with a non-slip finish, contrasting profiles and which are easy to access are required in school buildings to guarantee a certain level of safety. Mapei's range of products from the resilients line includes an extensive variety of complementary systems specific for installing finishing elements on steps and stairs, such as resilient flooring and wall coverings, skirting, steps, corner profiles and nosing on different types of substrate.



- 1 Metal
- 2 Mapecontact Plus
- 3 Resilient covering

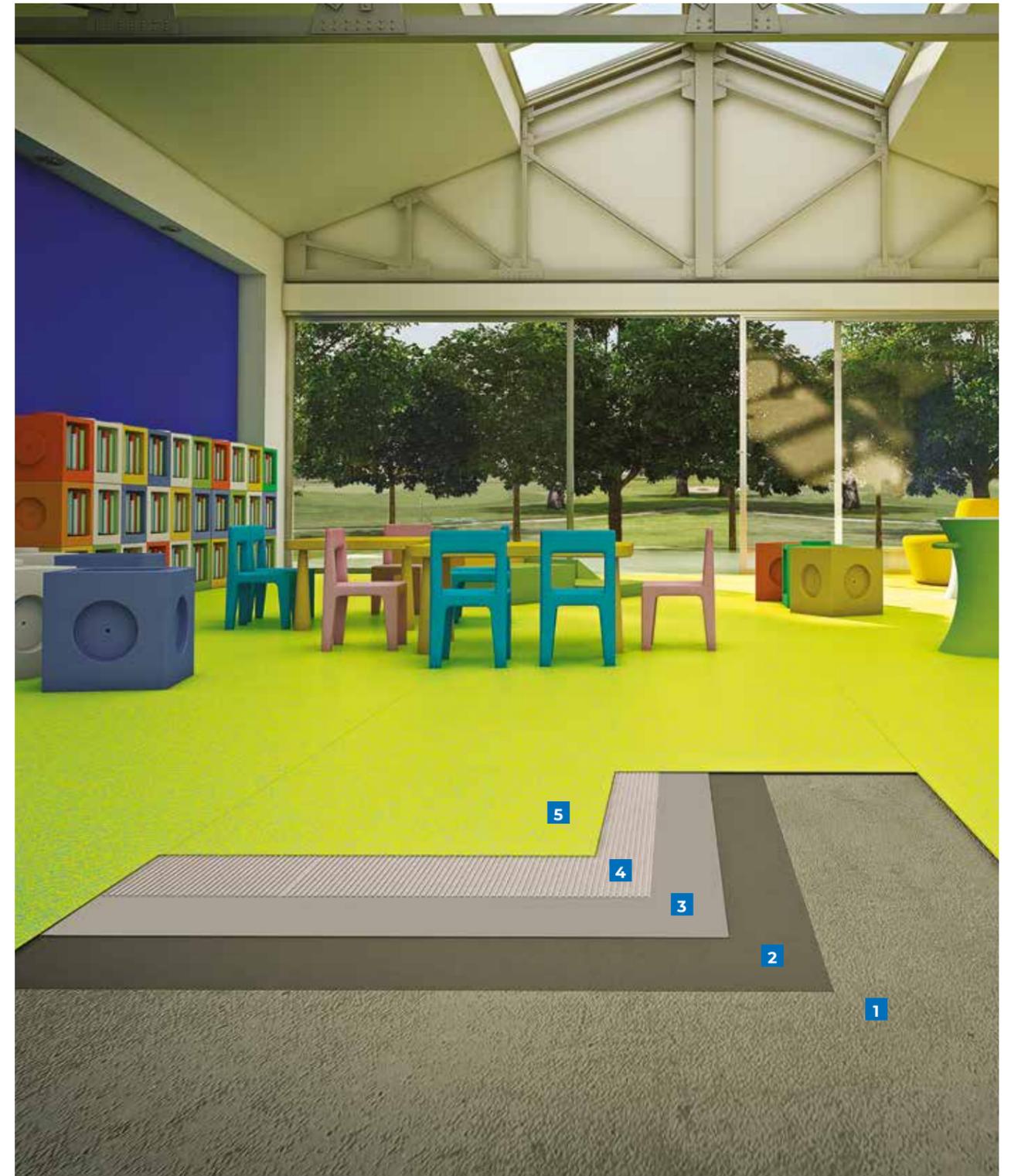


- 1 Concrete
- 2 Ultrabond Eco Contact
- 3 Resilient covering



Classrooms

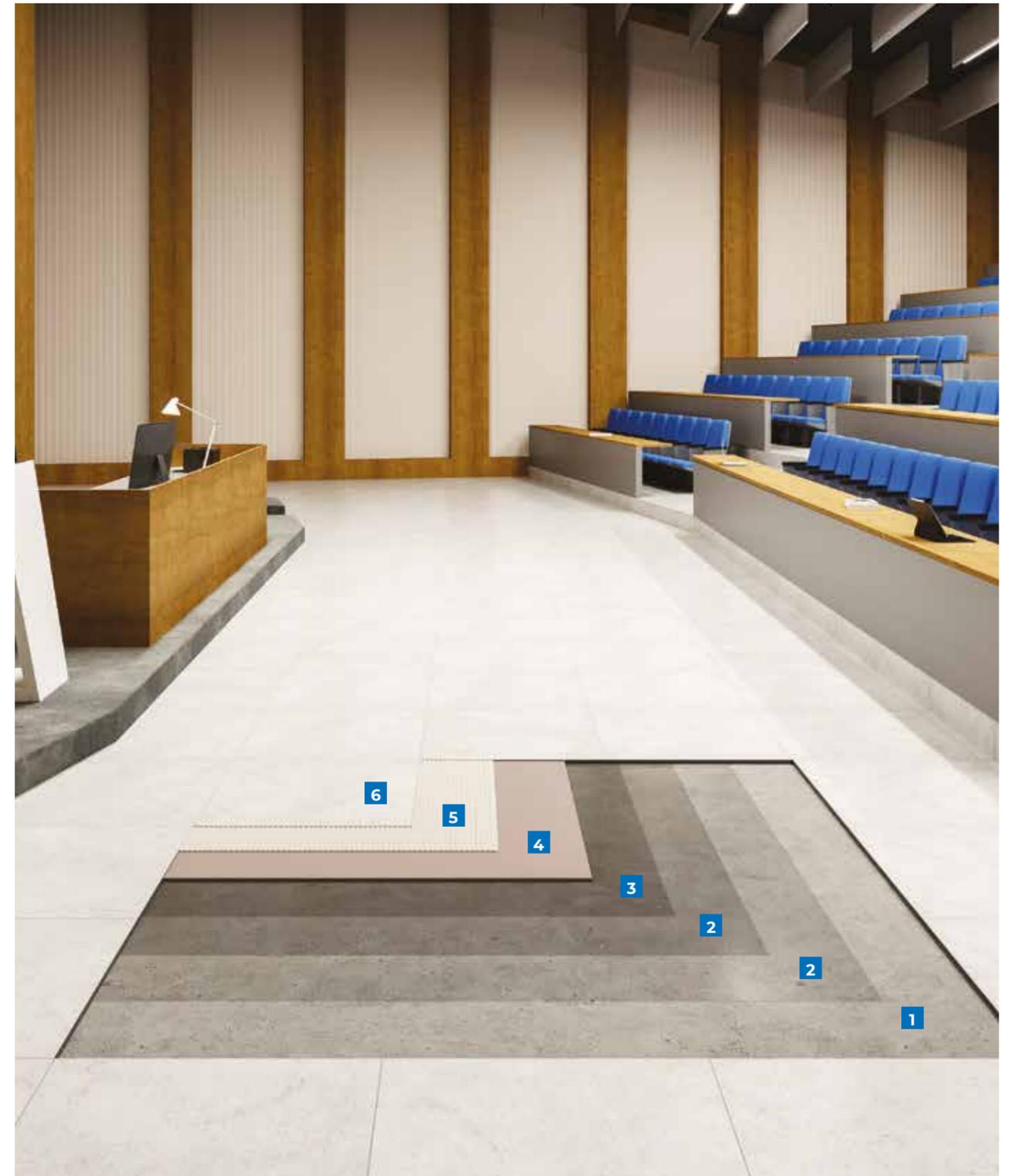
Nowadays, a classroom is no longer seen as a static environment where lessons are held, but rather a highly flexible and dynamic space for group work and interaction. Choosing the right flooring and wall covering is very important in order to guarantee comfort and safety while people are moving around or furniture is being rearranged (desks, equipment, etc.) during the various didactic activities. And Mapei, thanks to their extensive range of installation systems and adhesives for resilient flooring, offers the optimum solution for these types of applications.



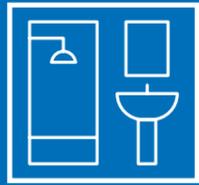
- 1 Primer MF
- 2 Eco Prim T Plus
- 3 Planex HR
- 4 Adesilex G20 Fast
- 5 Resilient flooring



- 1 Old ceramic flooring
- 2 Planipatch Xtra
- 3 Eco Prim T Plus
- 4 Ultraplan Xtra
- 5 Ultrabond Eco 388
- 6 Resilient flooring



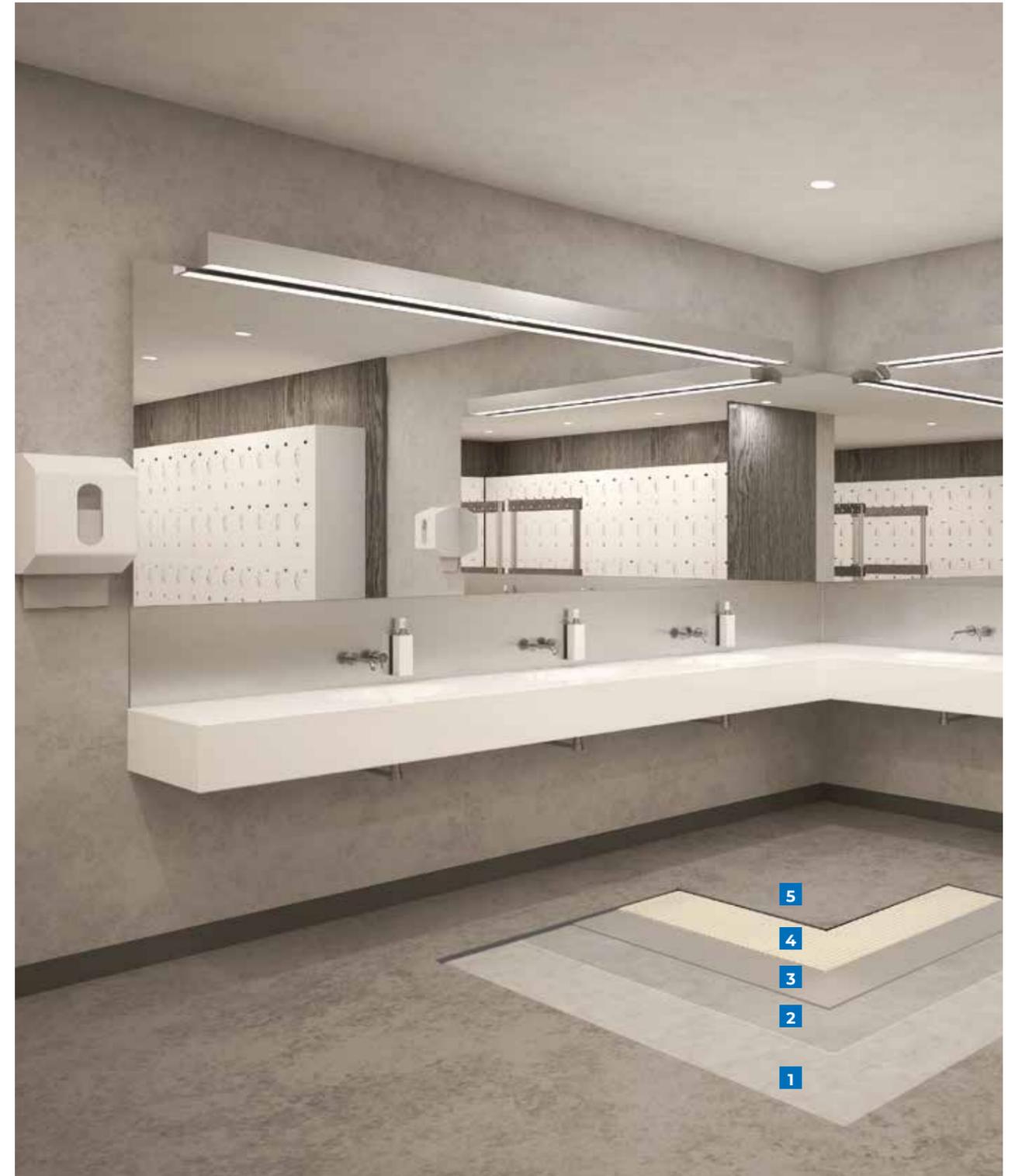
- 1 Screed
- 2 Primer MF
- 3 Eco Prim T Plus
- 4 Ultraplan Contract
- 5 Ultrabond Eco 4 LVT
- 6 LVT



Bathrooms

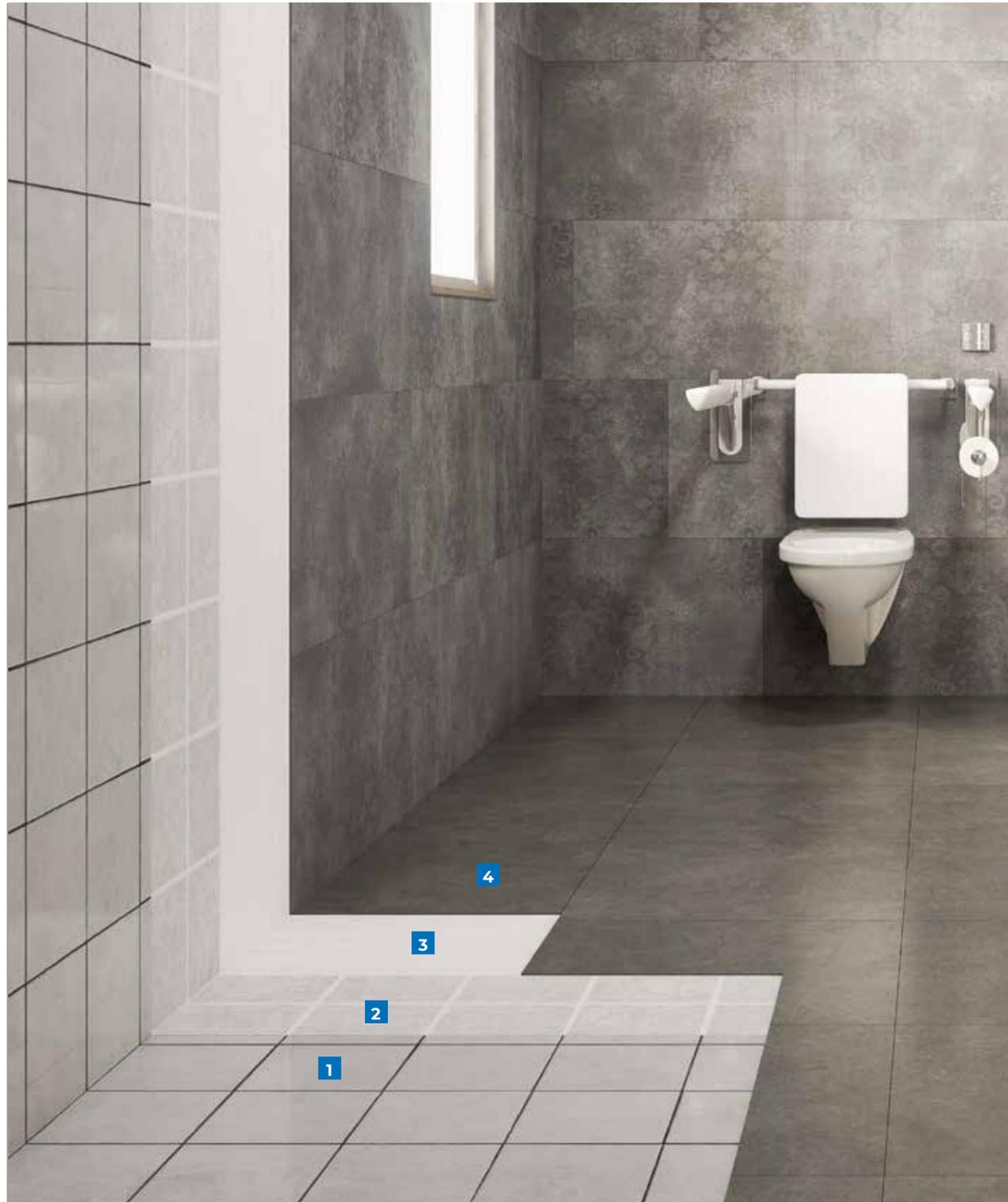
Bathrooms need to be characterised by maximum hygiene, cleanliness and safety. This translates into non-slip flooring resistant to urine, waterproofness and ease of maintenance and cleaning. Mapei waterproofing systems, combined with adhesives and products of the latest generation with high performance properties for installing LVT and resilient materials, help achieve these results.

- 1 Old resin flooring
- 2 Eco Prim T Plus
- 3 Planex HR Maxi
- 4 Ultrabond Eco MS 1
- 5 Resilient flooring





- 1** Old ceramic flooring
- 2** Planiprep 4 LVT
- 3** Ultrabond Eco MS 4LVT Wall&Floor
- 4** LVT

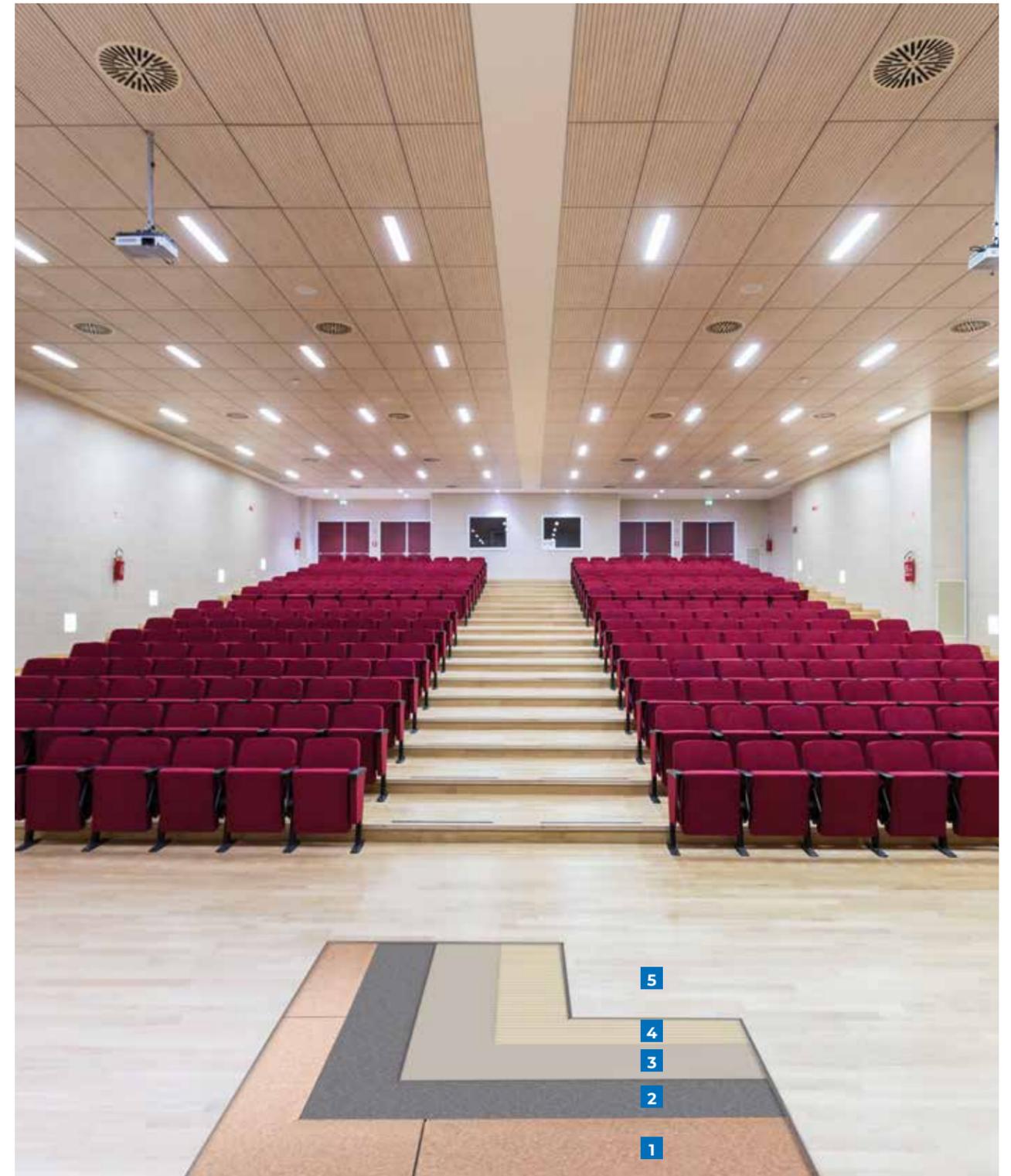


- | | |
|--|--------------------------|
| 1 Topcem Pronto | 6 LVT |
| 2 Eco Prim T Pro | 7 Mapecoat 4 LVT |
| 3 Planex HR Maxi | 8 Mapesil AC |
| 4 Mapegum WPS | 9 Flexcolor 4 LVT |
| 5 Ultrabond Eco MS 4 LVT Wall&Floor | 10 Plasterboard |



Lecture theatres, study rooms and libraries

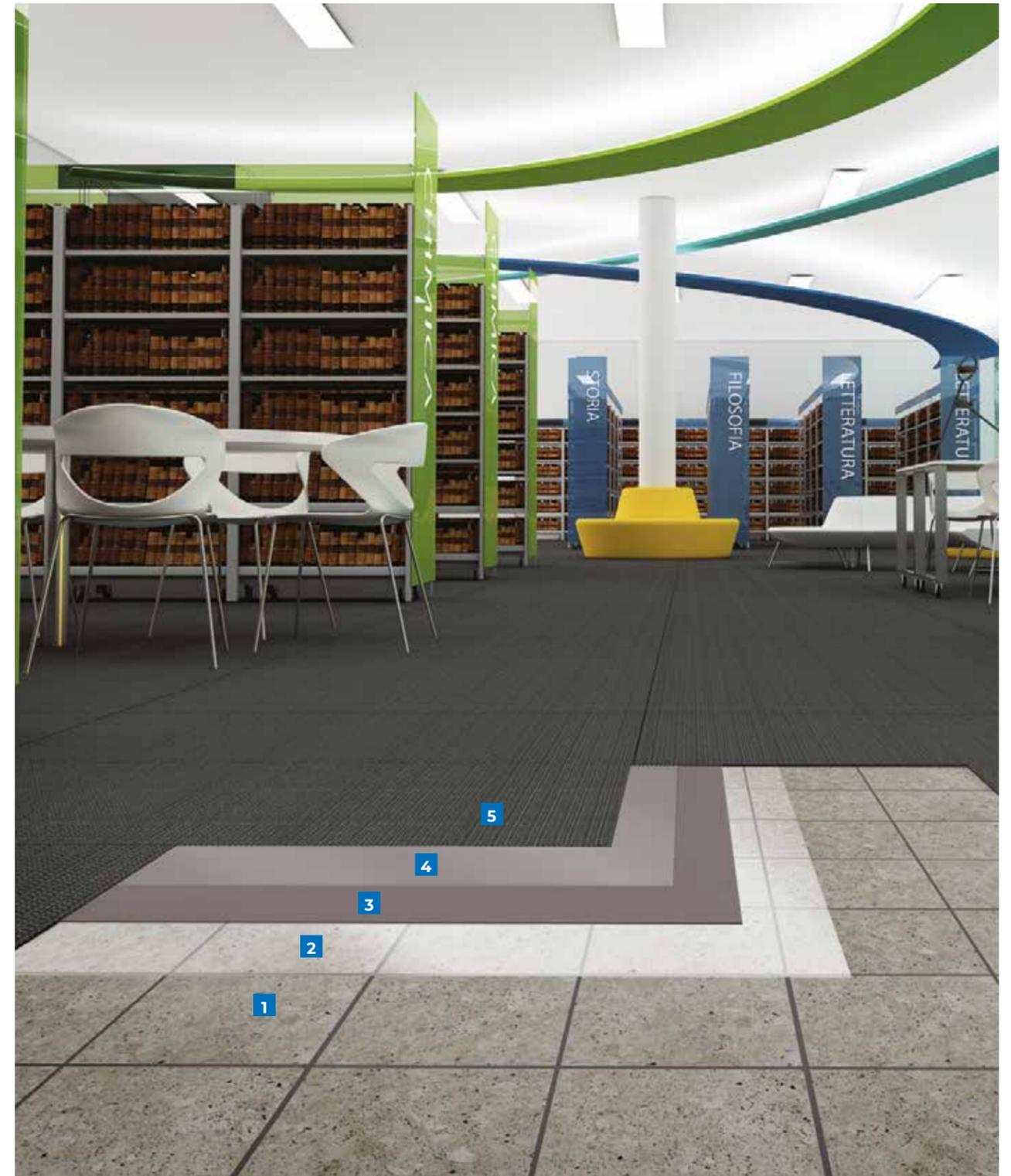
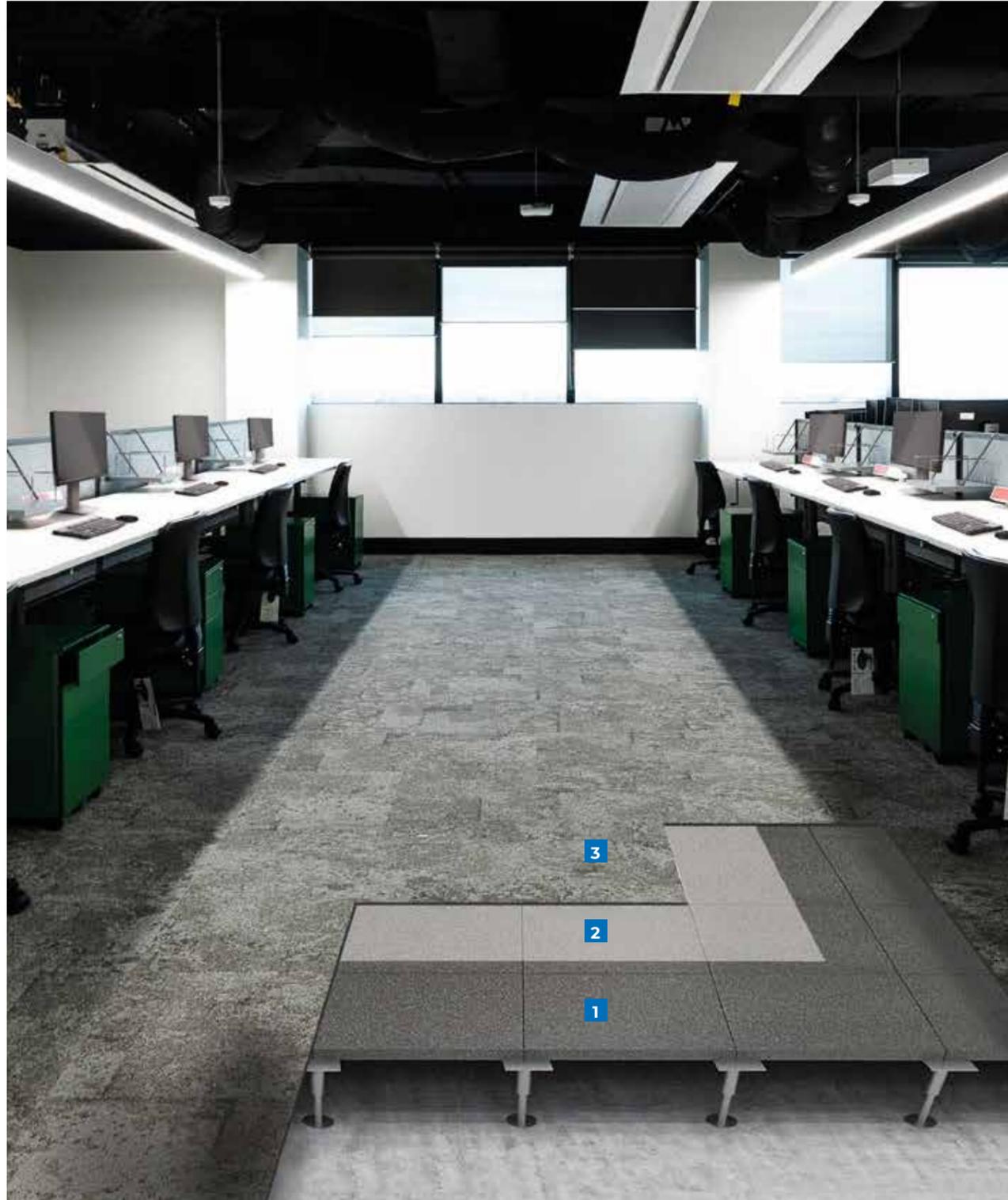
Flooring and wall coverings chosen for these environments must guarantee surroundings conducive to the learning process and that favour concentration. They must also maximise safety and minimise noise. Surfaces, often characterised by flooring in squares or rolls of resilient or textile material, must also guarantee high resistance to foot traffic and heavy loads generated by furniture typically found in such areas.



- 1 Old ceramic flooring
- 2 Eco Prim Grip Plus
- 3 Ultraplan Eco
- 4 Ultrabond Eco 4 LVT
- 5 LVT



- 1** Raised flooring
- 2** **Ultrabond Eco Tack 4LVT**
- 3** Loose lay carpet tiles

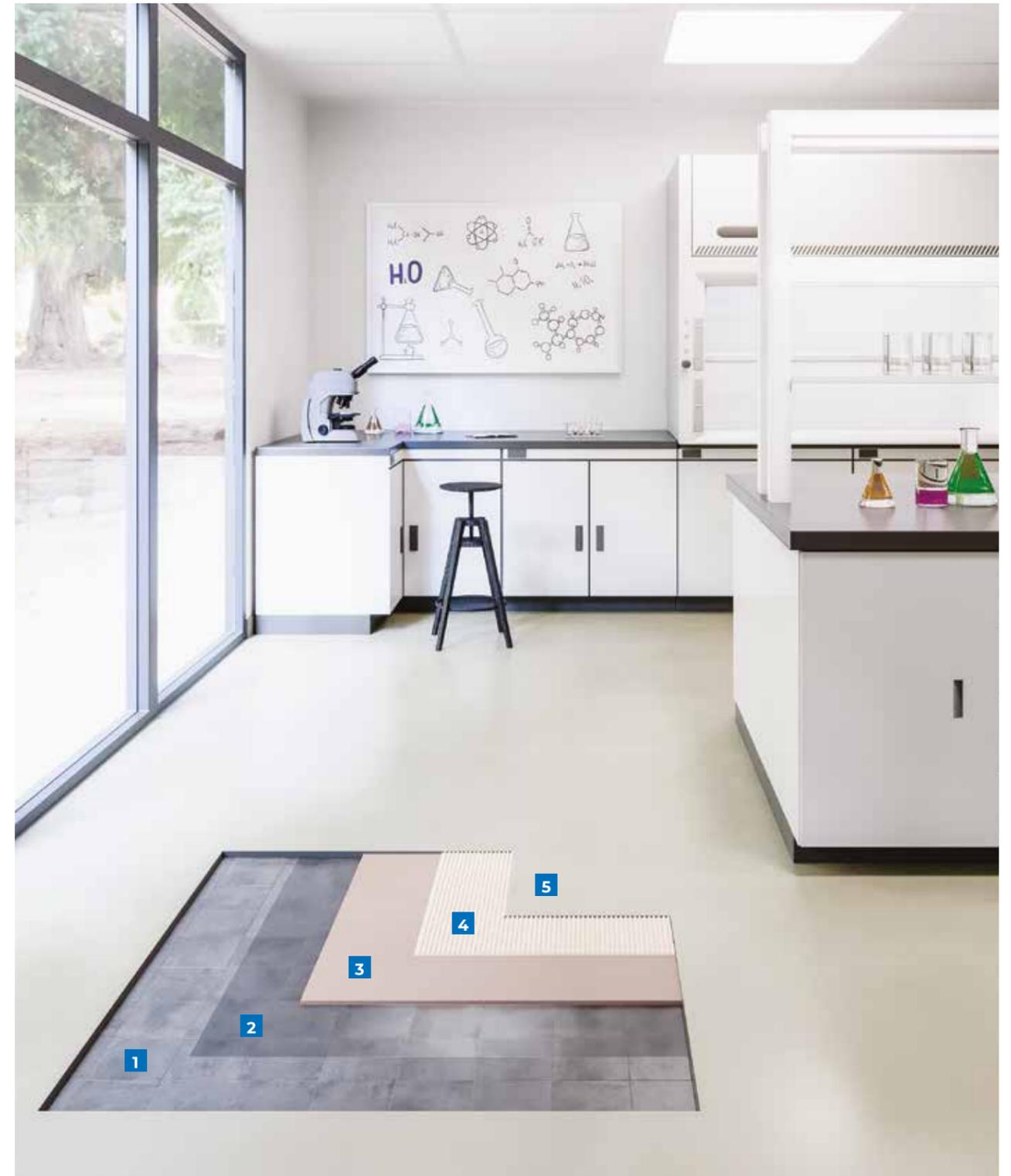


- 1** Marble chip tiles
- 2** **Eco Prim T Plus**
- 3** **Ultraplan Xtra**
- 4** **Ultrabond Eco Fix**
- 5** Resilient flooring

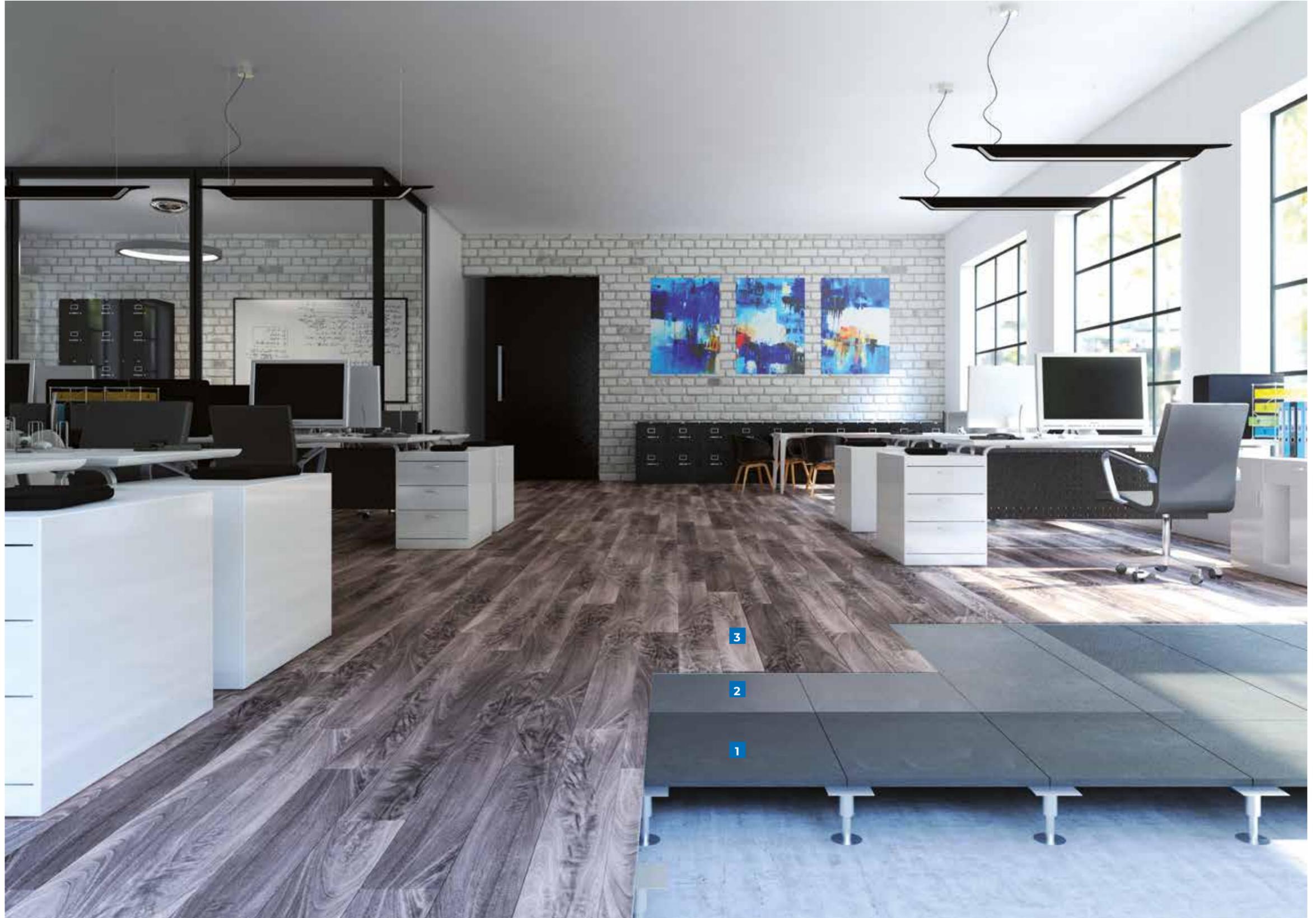


Laboratories

Resilient flooring and wall coverings are the optimum choice in laboratories because they guarantee that activities can be carried out safely and in comfort thanks to their non-slip, conductive and antistatic-dissipative properties and their resistance to chemicals and stains. And Mapei, thanks to their extensive range of installation systems and adhesives for resilient flooring, offers the optimum solution for these types of application.



- 1 Old flooring
- 2 Eco Prim T Pro
- 3 Ultraplan
- 4 Adesilex G20
- 5 Resilient flooring

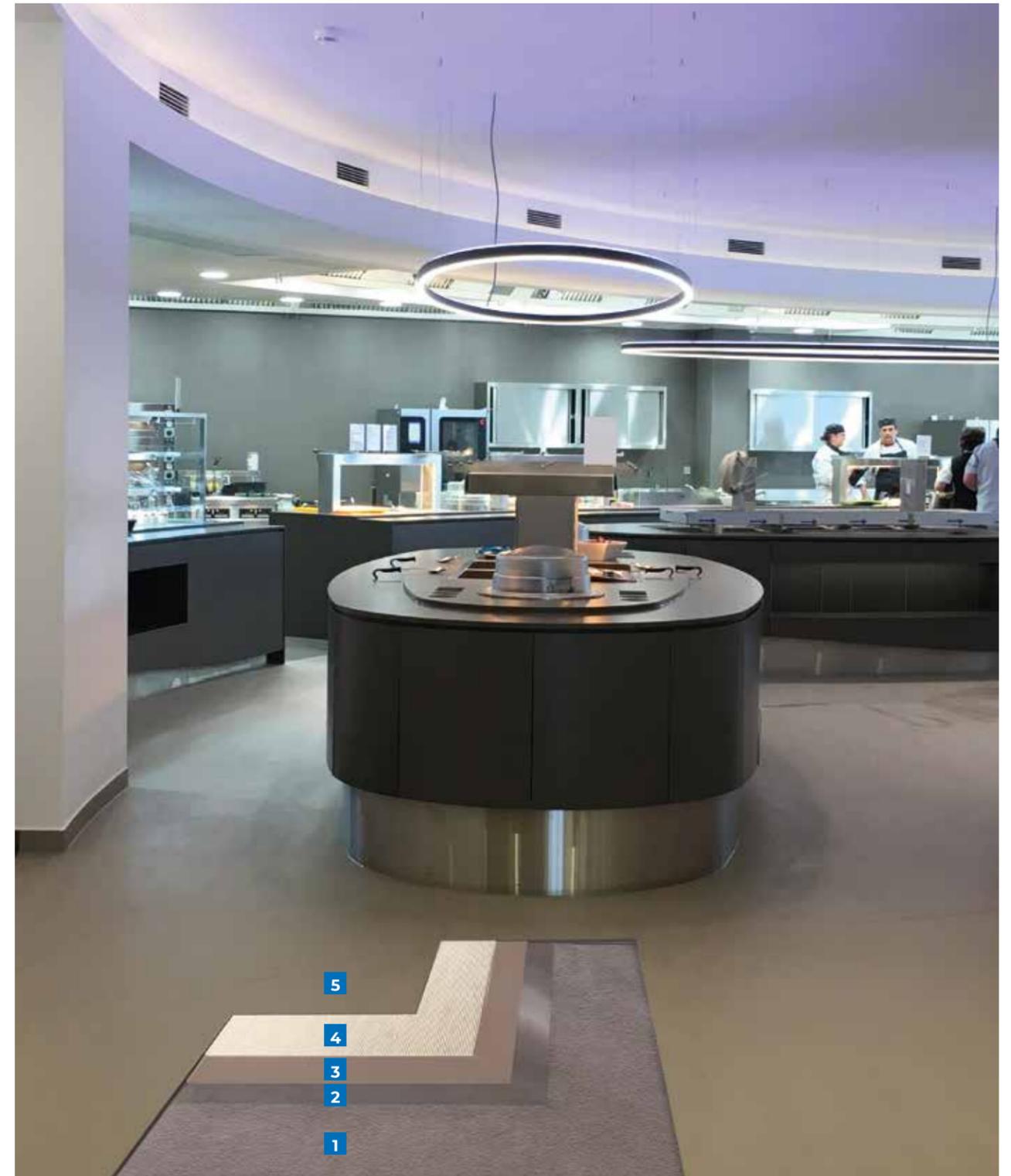


- 1** Raised flooring
- 2** Ultrabond Eco Tack TX*
- 3** Loose lay LVT



Canteens and bars

Aesthetics and functionality are also important requirements in environments used for preparing and consuming food and drinks, such as restaurants, bars and canteens. In these spaces, and more so than in other areas, the surfaces of flooring and wall coverings are at risk of coming into contact with substances that could damage them, or at least stain them, and they are also required to guarantee a high level of cleanliness and hygiene. When hygiene is one of the main requirements resilient flooring has proven to be the ideal material, in that it creates a compact, hermetic, seamless surface that can then “rise” along the bottom of walls, thereby eliminating sharp corners and gaps between floors and walls where food waste can collect or bacteria can form. The joints are sealed or hot-welded so that flooring and wall coverings can be completely disinfected. Surfaces must also be highly resistant to finger marks and abrasion and must maintain their durability over time. Mapei systems and products for preparing sub-layers and bonding these types of flooring help achieve the best results in terms of aesthetics and performance.



- 1 Topcem Pronto
- 2 Eco Prim T Easy
- 3 Planex HR
- 4 Adesilex G20
- 5 Resilient flooring

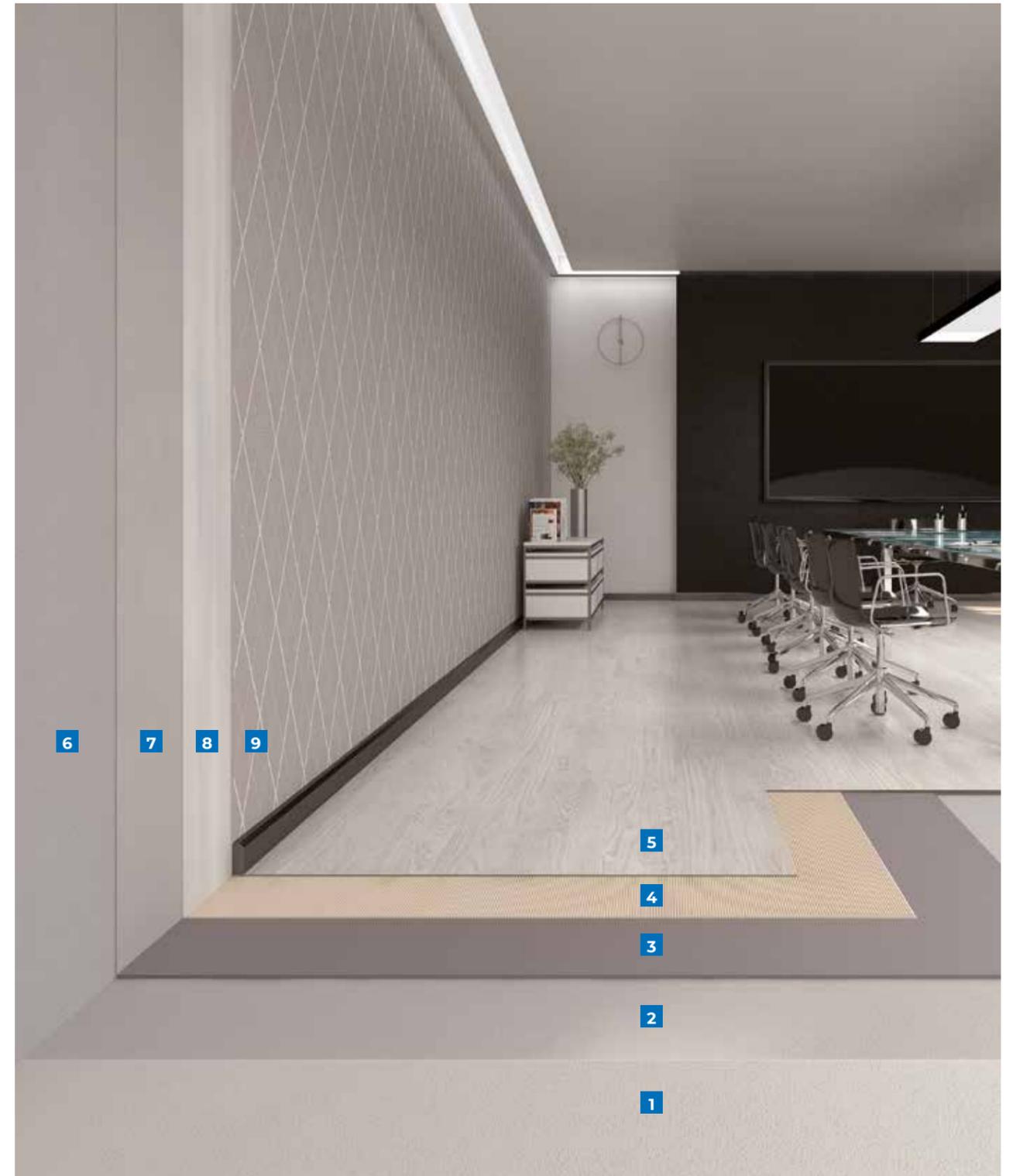


- 1 Existing flooring
- 2 Planipatch Xtra
- 3 Eco Prim Grip Plus
- 4 Ultraplan Contract
- 5 Ultrabond Eco VS60
- 6 LVT



Administration offices

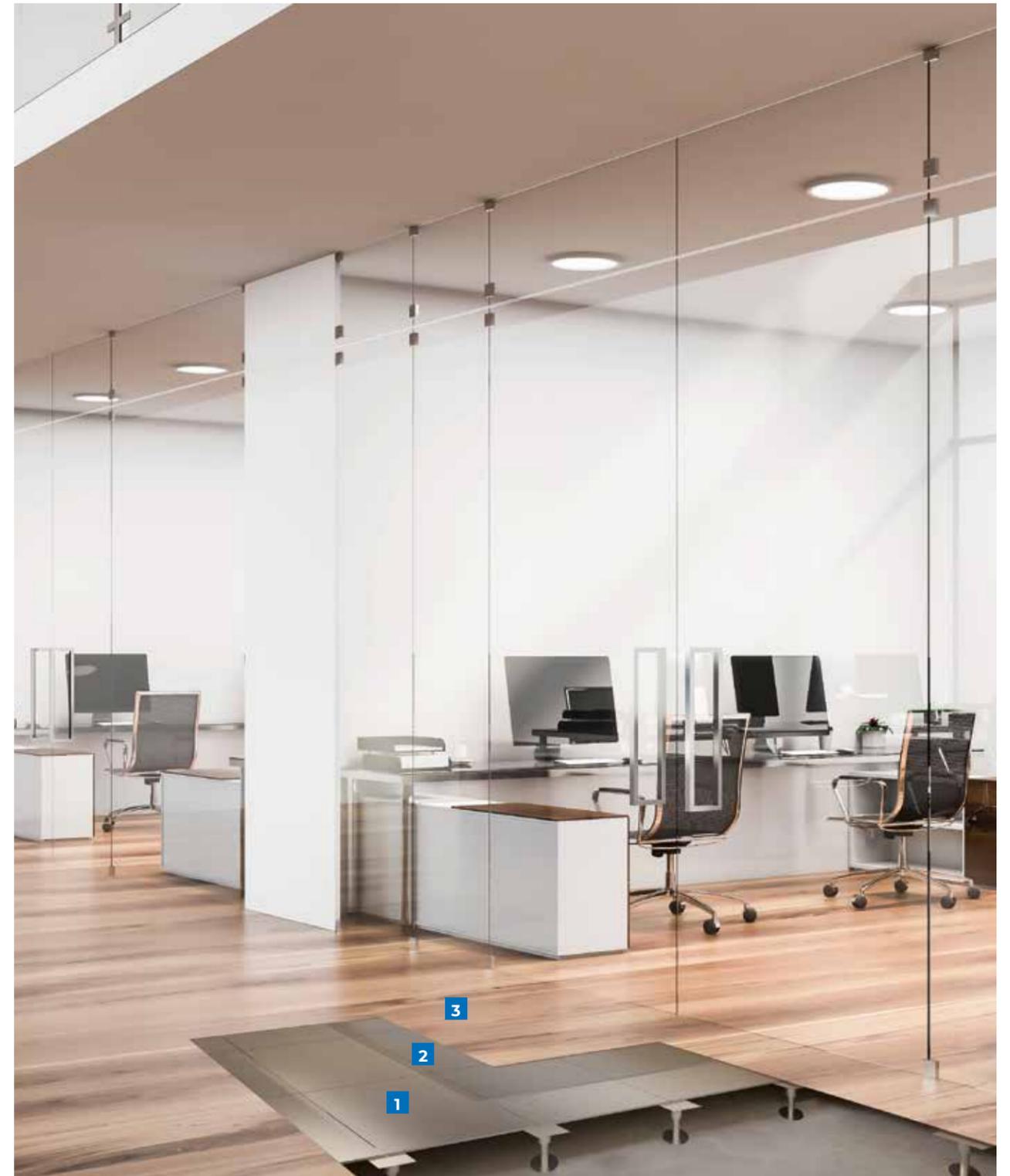
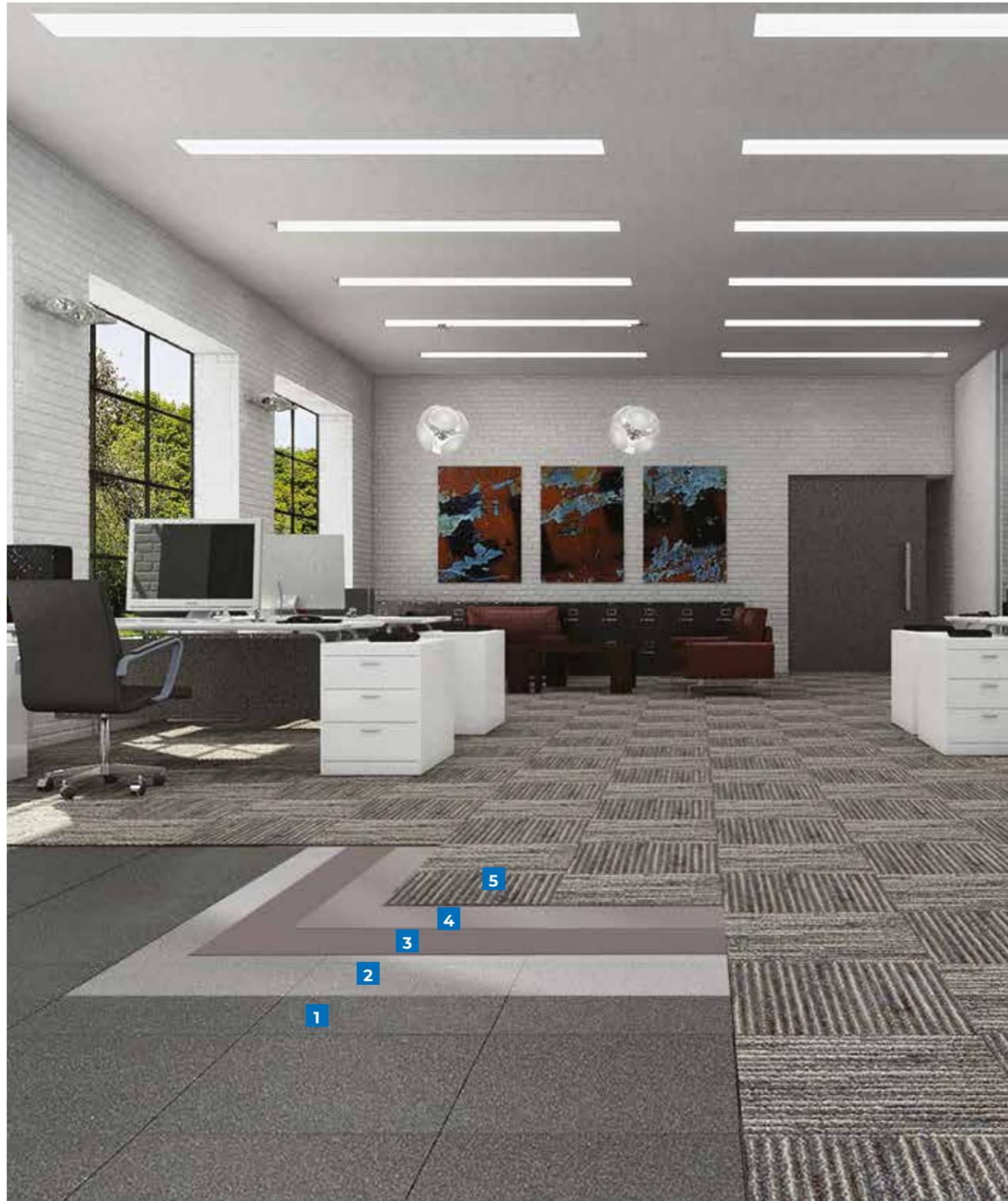
Flooring for these types of surroundings needs to prioritise the comfort of users while maximising safety and reducing noise levels. For these types of surroundings, too, designers often opt for textile flooring in rolls or tiles or resilient flooring, which must be installed with systems that guarantee maximum functionality and durability over time.



- | | |
|------------------------------|-------------------------------|
| 1 Topcem Pronto | 6 Plasterboard |
| 2 Eco Prim T Pro | 7 Planiprep Fast Track |
| 3 Ultraplan | 8 Adesilex MT32 |
| 4 Ultrabond Eco 4 LVT | 9 Wallpaper |
| 5 LVT | |



- 1** Existing flooring
- 2** Eco Prim T Plus
- 3** Ultraplan Xtra
- 4** Ultrabond Eco Tack TX+
- 5** Loose lay carpet tiles

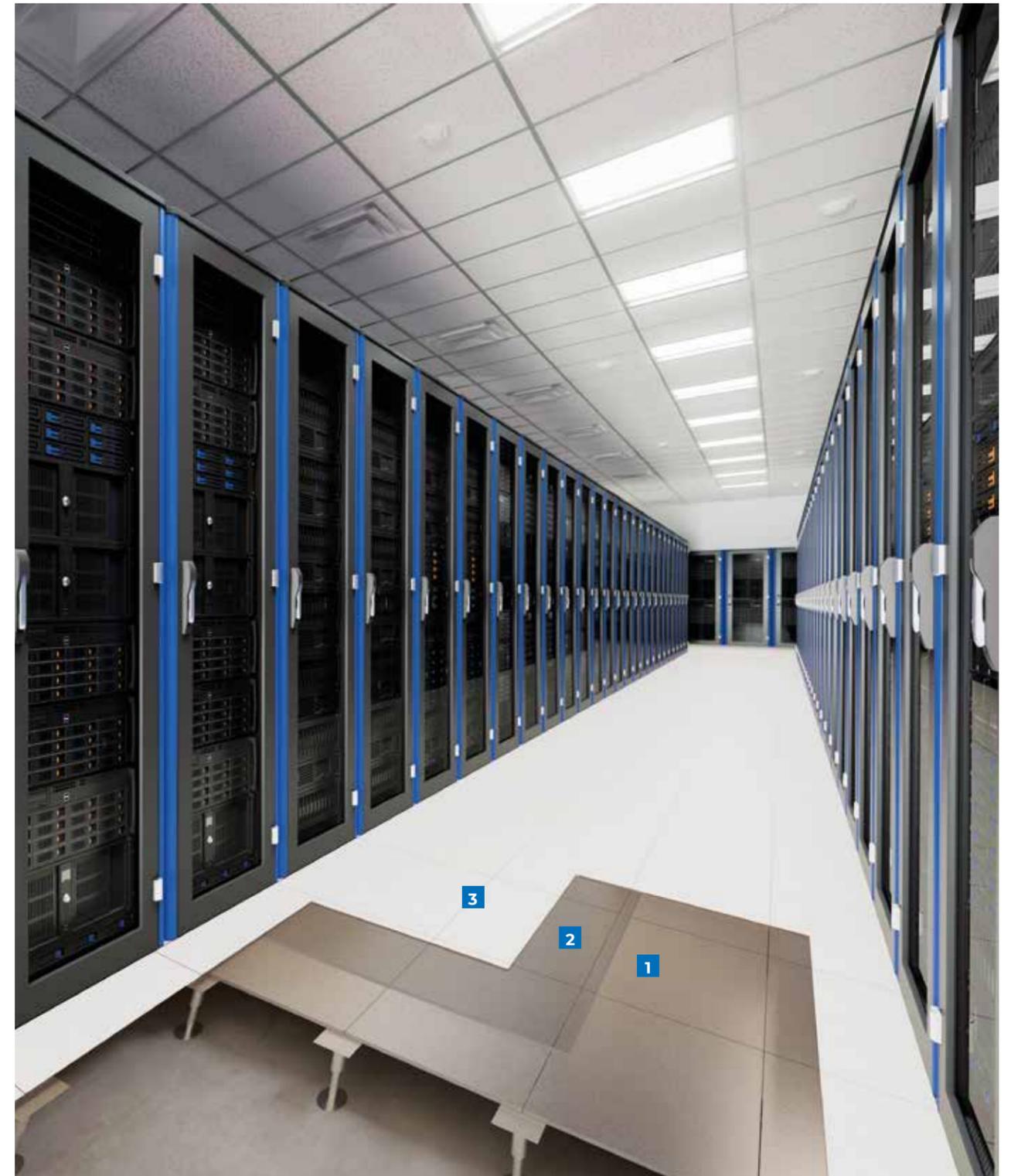


- 1** Raised flooring
- 2** Ultrabond Eco Tack 4 LVT
- 3** Loose lay LVT



Archives and technical rooms

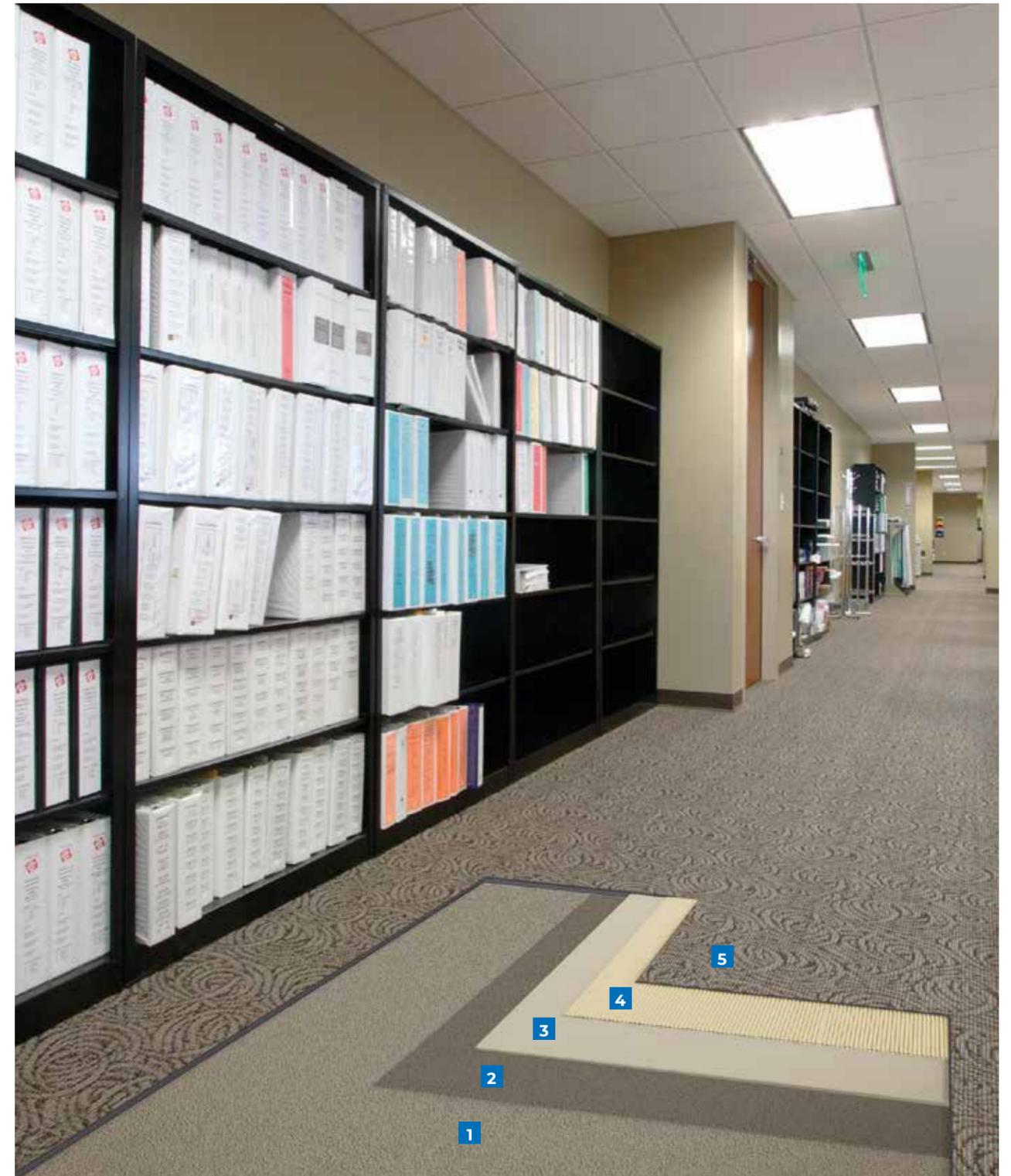
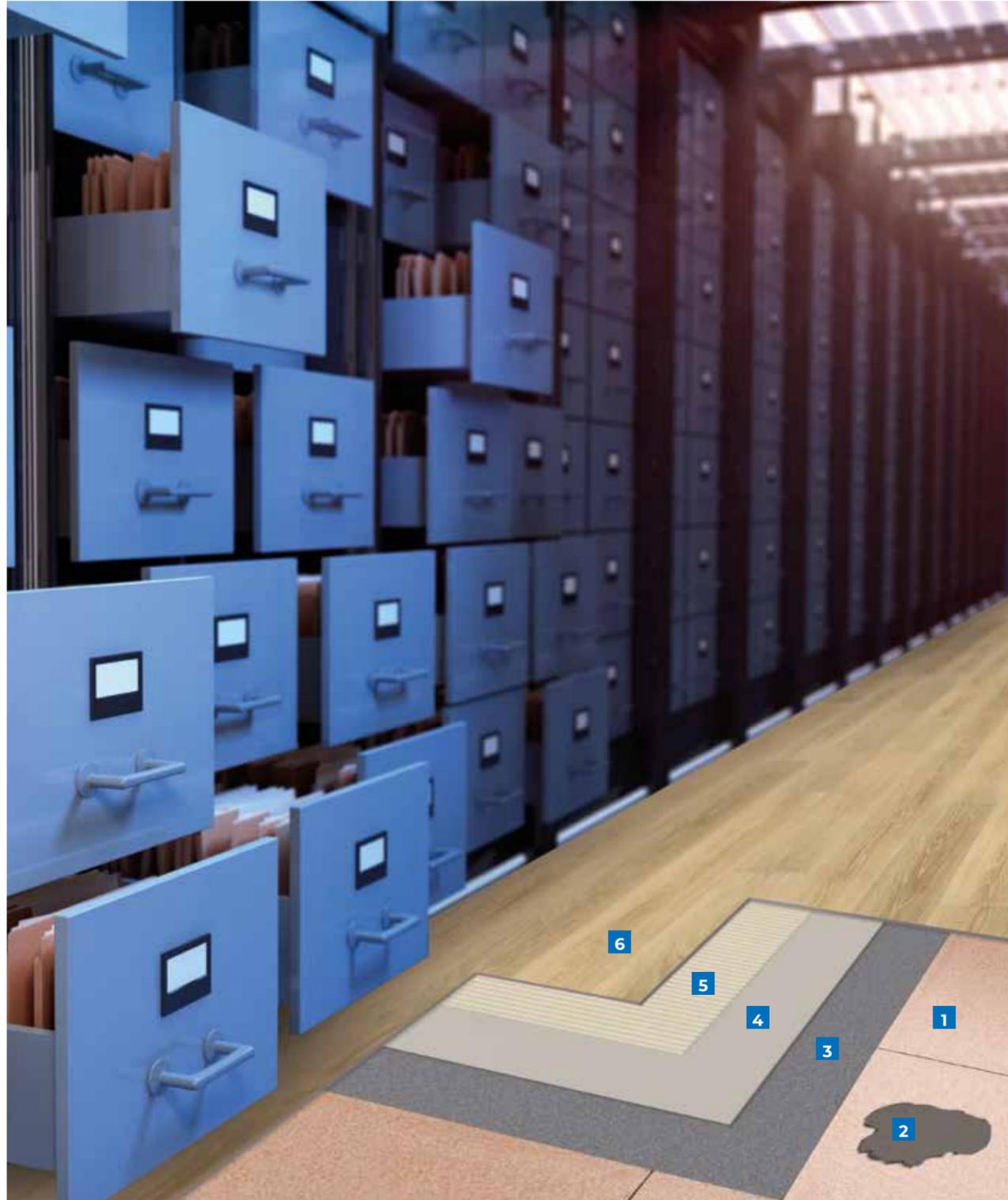
Resilient or textile flooring in rolls or tiles is often chosen for these types of environments. In the case of raised floors, tiles are ideal for installation and maintenance of electrical and hydraulic systems, air-conditioning systems, phone networks and IT systems.



- 1 Raised flooring
- 2 **Ultrabond Eco Fix**
- 3 Loose lay resilient flooring



- 1 Old ceramic flooring
- 2 Planipatch Xtra
- 3 Eco Prim Grip Plus
- 4 Ultraplan Contract
- 5 Ultrabond Eco VS90 Plus
- 6 LVT

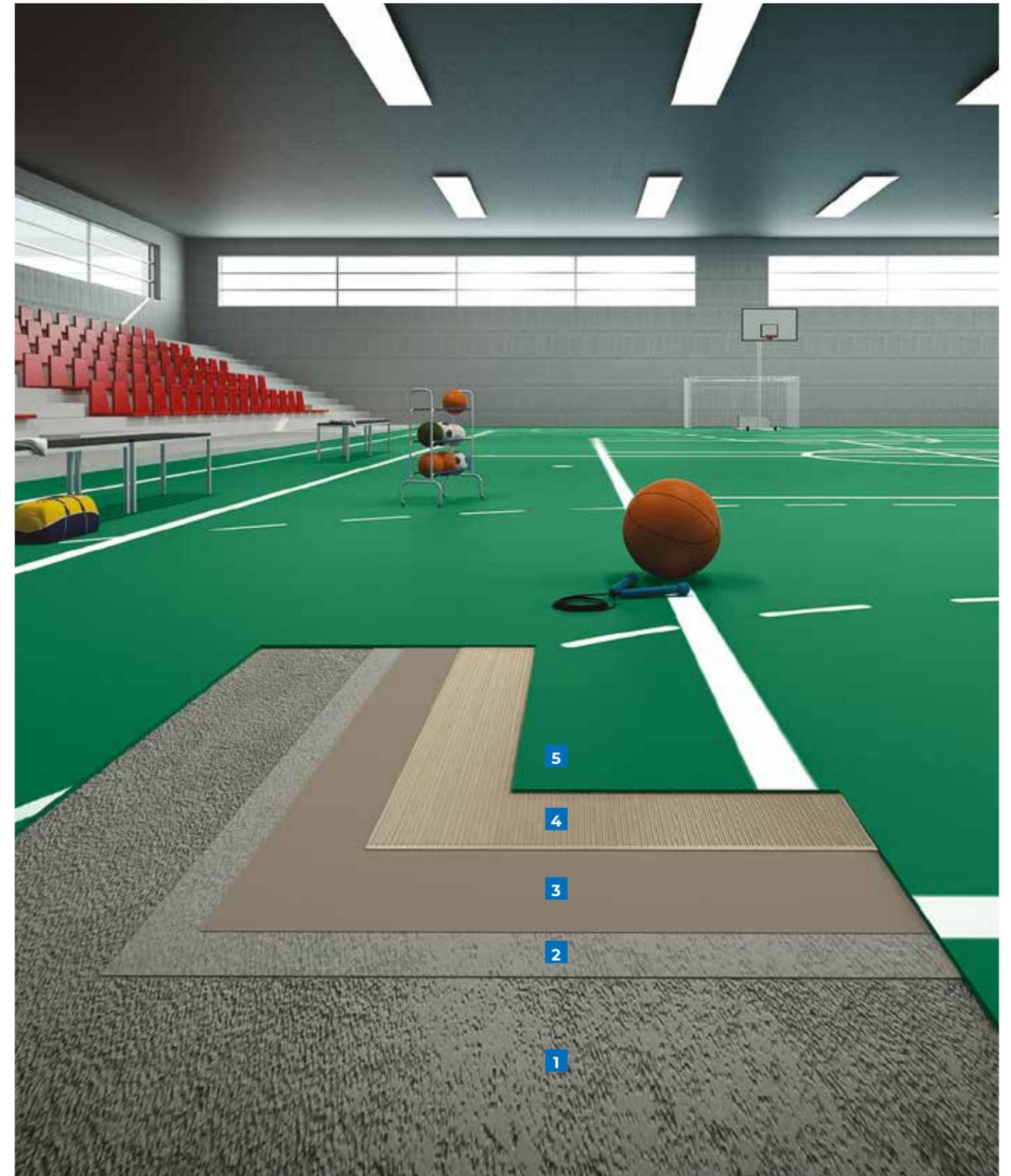


- 1 Sand and cement screed mixed with **Mapescreed Advance HR**
- 2 **Eco Prim T Pro**
- 3 **Ultraplan Eco**
- 4 **Ultrabond Eco TX2**
- 5 Broadloom carpet



Sports and recreational structures

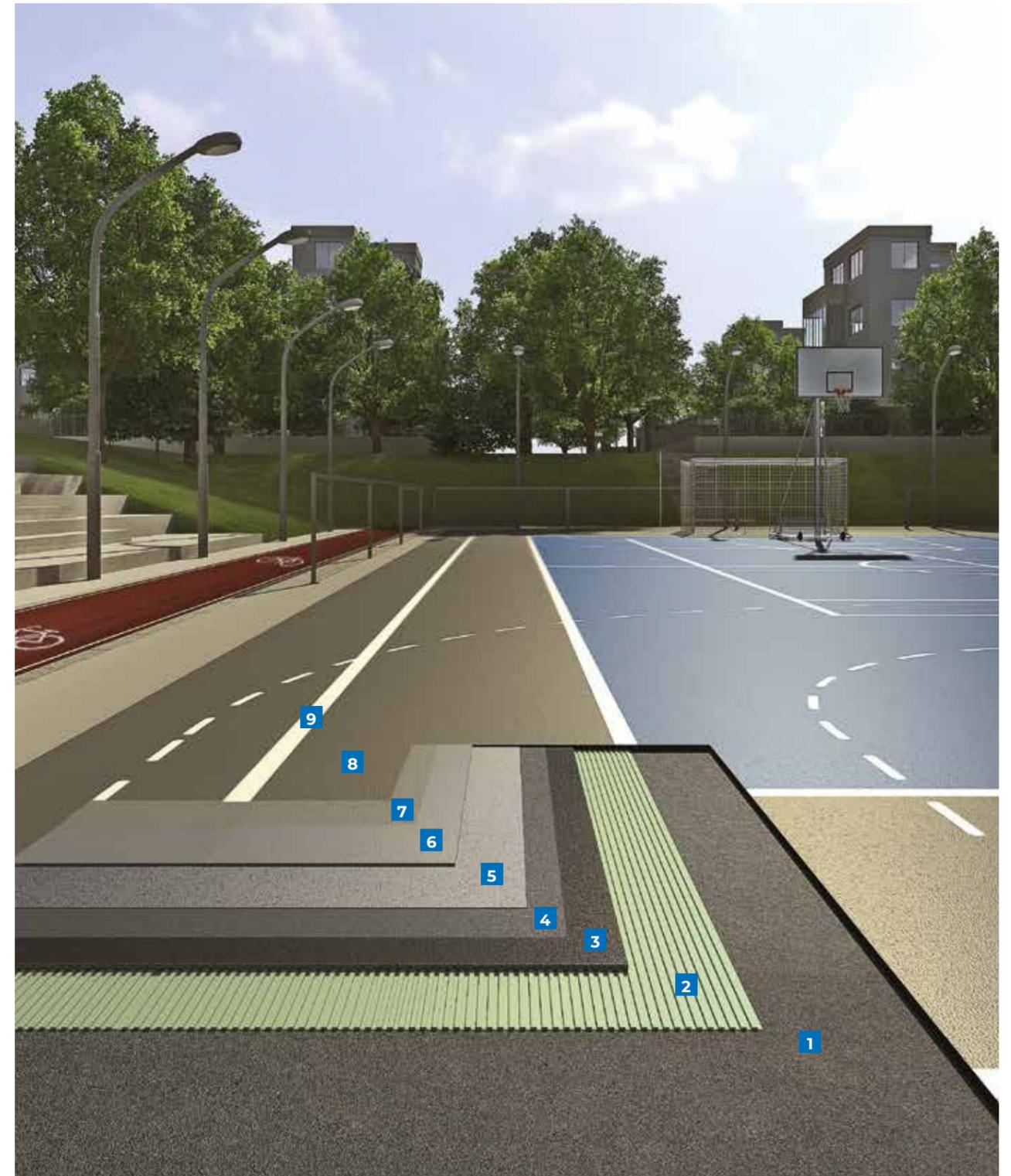
The importance of the connection between psycho-physical wellbeing and sports is a stimulus for more thorough and careful design, installation and maintenance of sports surfaces. Mapei has become the main technical partner in support of public, private and freelance bodies and institutions to help identify the best technical solutions for the installation of every type of sports surface.



- 1 Concrete
- 2 **Eco Prim T Plus** primer
- 3 **Ultraplan Renovation**
- 4 **Ultrabond Eco V4 SP**
- 5 Resilient flooring



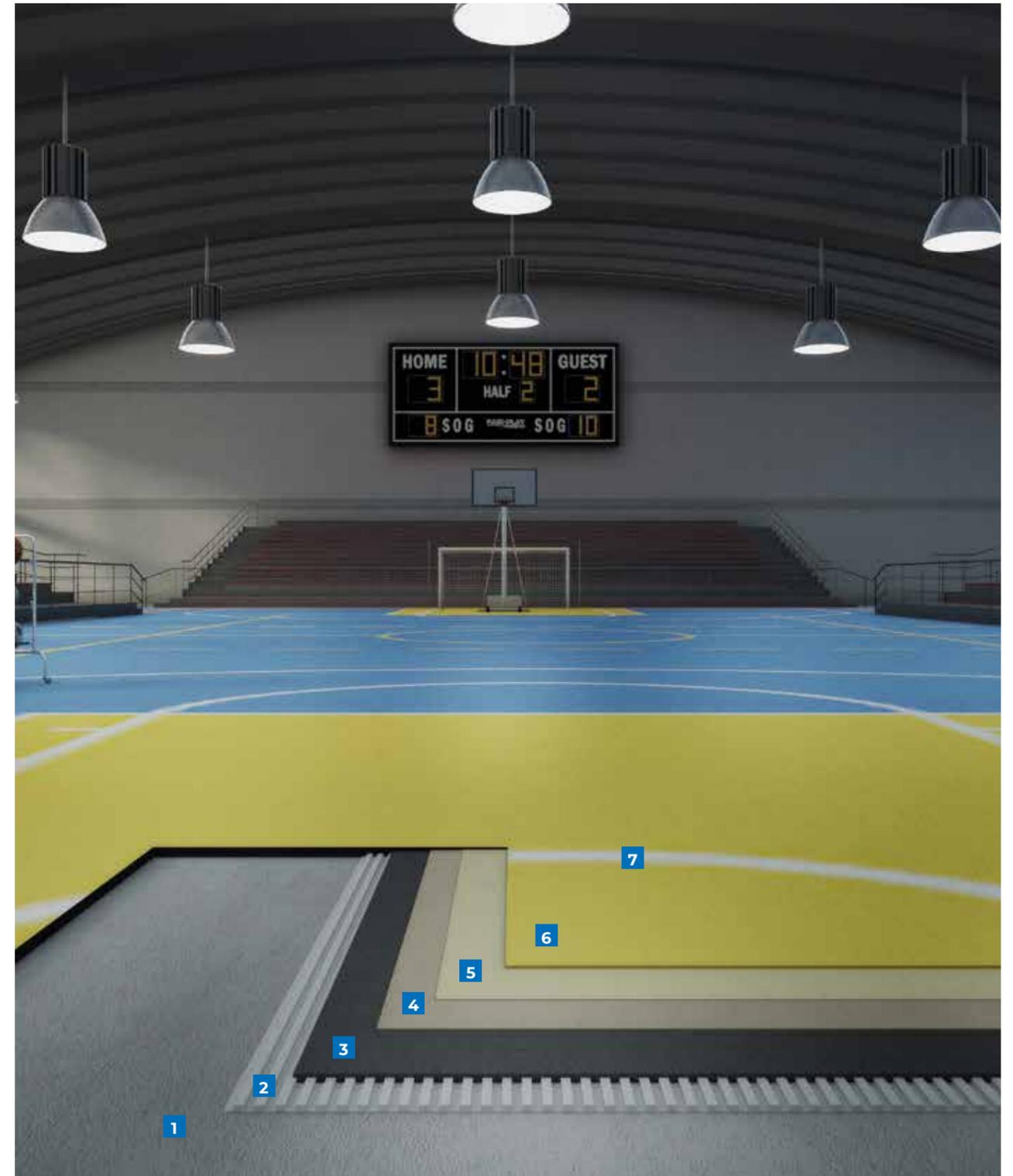
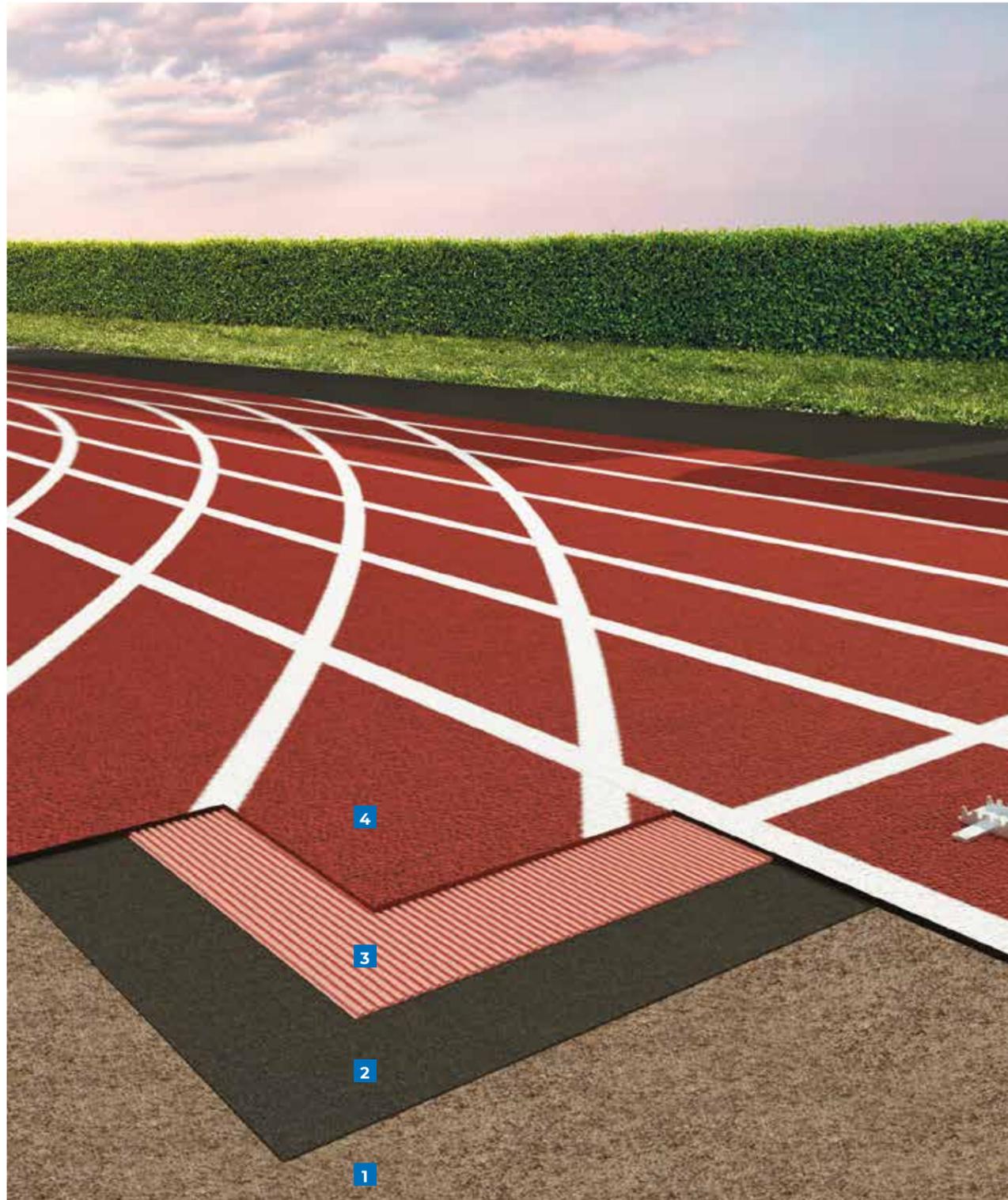
- 1 Asphalt
- 2 Adesilex G19
- 3 Rubber tiles



- | | |
|-------------------------------|---------------------------|
| 1 Asphalt | 6 Mapecoat TNS Base Color |
| 2 Ultrabond Turf 2 Stars PRO | 7 Mapecoat TNS Color |
| 3 Mapecomfort R | 8 Mapecoat TNS Paint |
| 4 Mapecoat TNS Primer EPW | 9 Mapecoat TNS Line |
| 5 Mapecoat TNS Grey Base Coat | |



- 1 Mapesoil 100
- 2 Asphalt
- 3 Adesilex G19
- 4 Prefabricated rubber flooring



- 1 Concrete
- 2 Ultrabond Turf 2 Stars PRO
- 3 Mapecomfort PU
- 4 PU Sealer 750
- 5 PU 700 SL (two coats)
- 6 PU 200 Finish (two coats)
- 7 PU 200 Finish

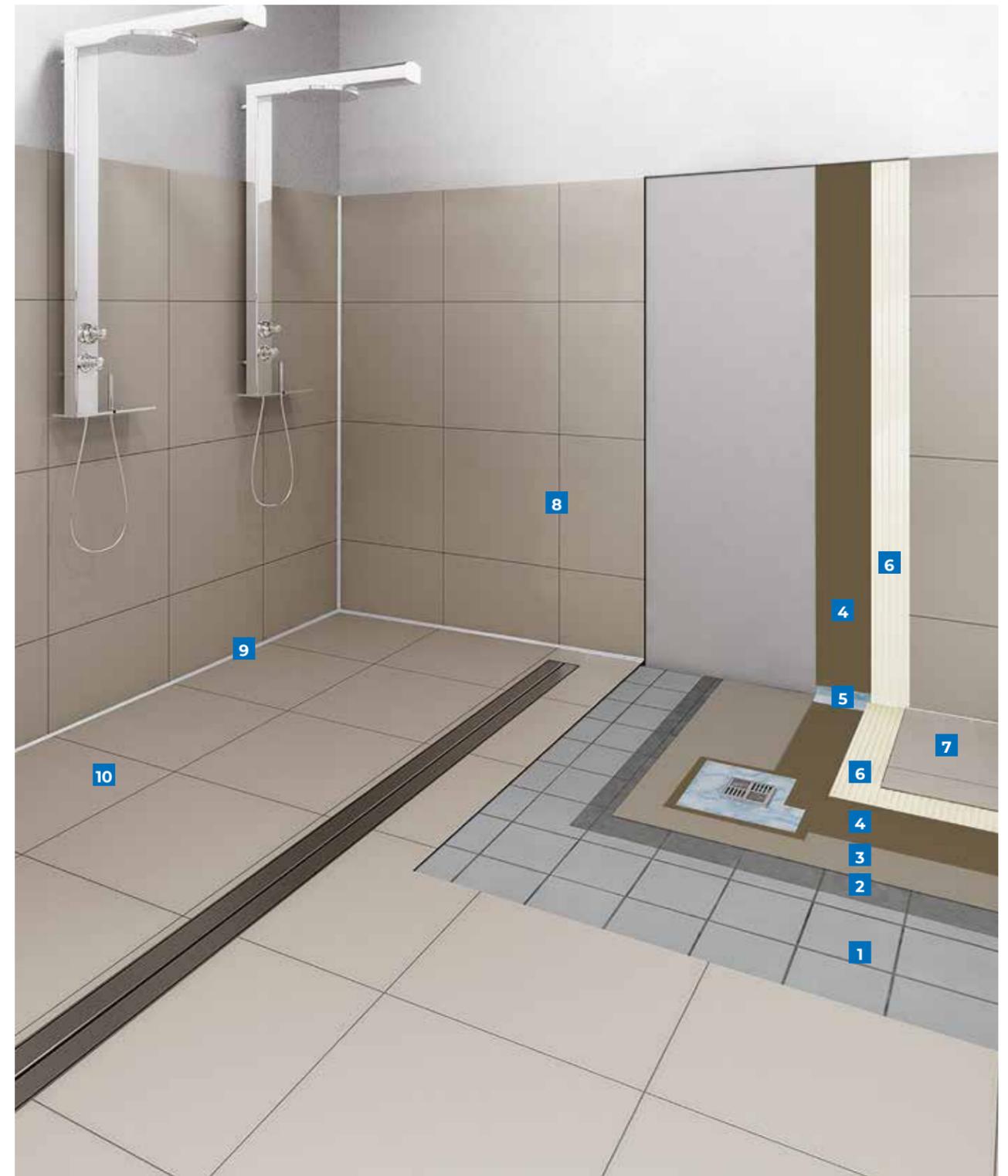


- 1 Old flooring
- 2 PU Gym Refresh
- 3 PU Gym Refresh



Showers and changing rooms

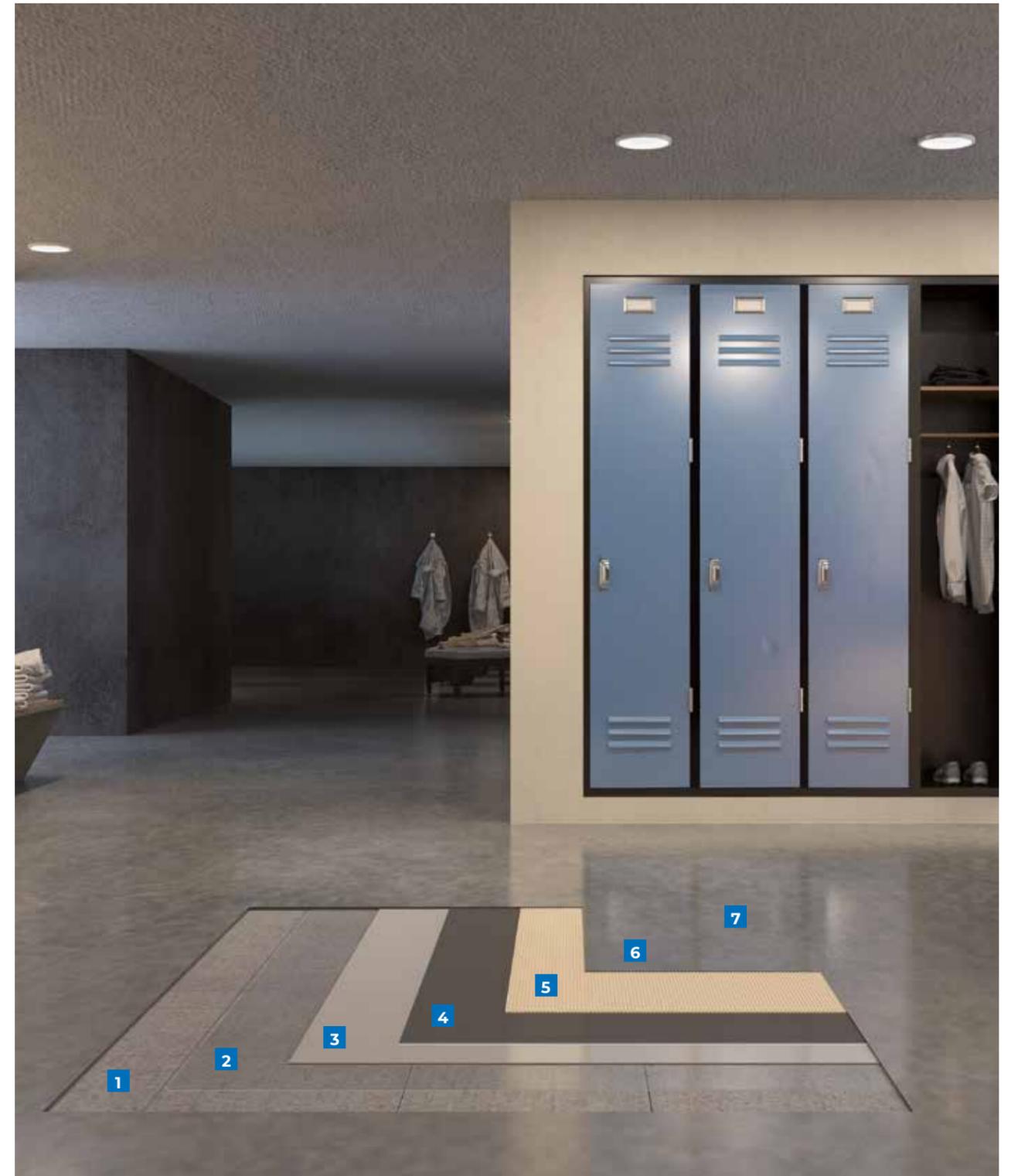
Cleanliness and hygiene are the requirements that flooring and wall coverings must provide in environments such as public changing rooms and bathrooms. Exposed to intense use, they need sound installation and waterproofing systems with the capacity to resist water standing permanently on their surfaces and maintain their aesthetic properties over time. In these kinds of area, too, resilient and LTV flooring and wall coverings are the recommended choice and, apart from being impermeable and water-repellent, they are also easy to clean, whatever their type of use, and guarantee a high level of hygiene.



- | | |
|---------------------------|---|
| 1 Old flooring | 6 Ultrabond Eco MS 4LVT Wall&Floor |
| 2 Eco Prim T Plus | 7 LVT |
| 3 Planex HR Maxi | 8 Flexcolor 4 LVT |
| 4 Mapelastic Turbo | 9 Mapesil AC |
| 5 Mapeband Easy | 10 Mapecoat 4 LVT |



- | | |
|--------------------------------|---|
| 1 Planex HR Maxi | 6 Ultrabond Eco MS 4LVT Wall&Floor |
| 2 Mapeguard WP Adhesive | 7 LVT |
| 3 Mapeguard WP 200 | 8 Flexcolor 4 LVT |
| 4 Mapeguard ST | 9 Mapecoat 4 LVT |
| 5 Mapeguard IC | 10 Mapesil AC |

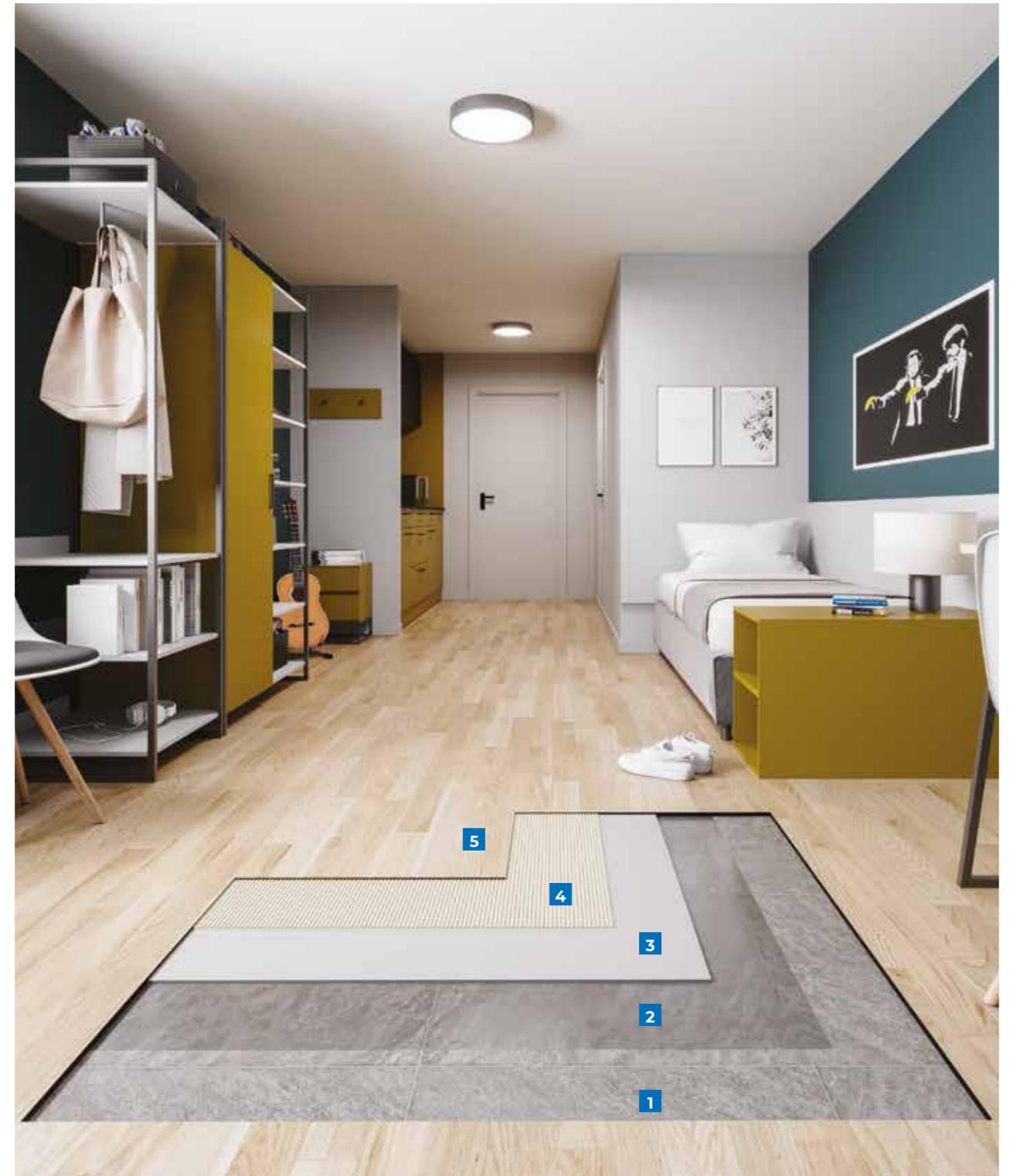


- | | |
|-------------------------|---------------------------------|
| 1 Old flooring | 5 Adesilex G20 Fast |
| 2 Eco Prim T Pro | 6 Resilient flooring |
| 3 Planex HR Maxi | 7 Mapecoat Wet & Dry R11 |
| 4 Mapelay | |

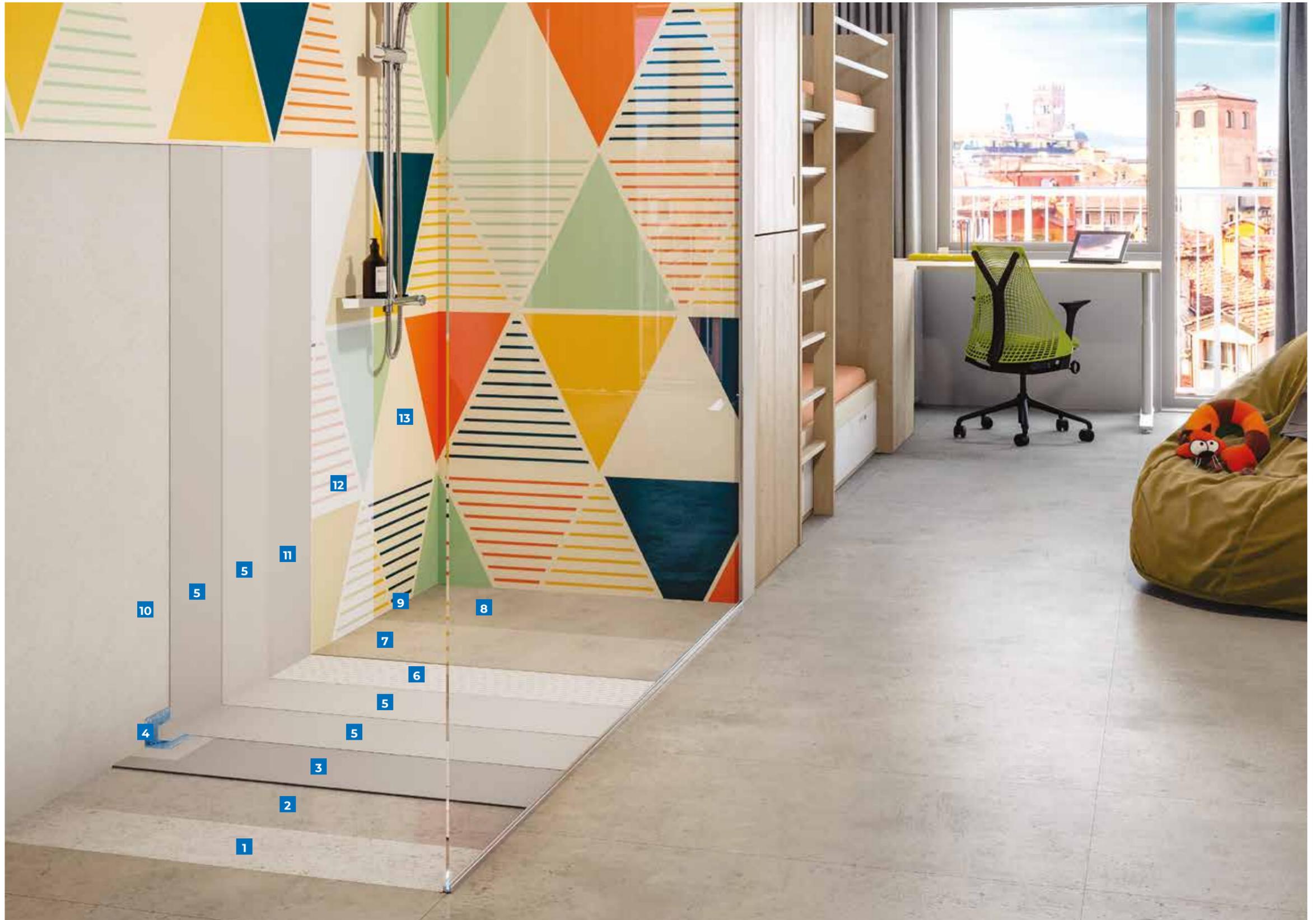


Halls of residence

When designing halls of residence, resilient and textile flooring and wall coverings need to combine aesthetics and high resistance to foot traffic, wear and frequent cleaning. LVT in strips and tiles is being used more and more often in rooms as low maintenance alternatives to carpet. These new flooring materials perfectly replicate the look of wood, stone and ceramic tiles and, especially with renovation work, have the advantage of being relatively thin so may be used to cover existing flooring. In addition, damaged areas may be replaced quickly and economically by using rapid installation systems that allow floors to be put back into service with the minimum down time. Mapei solutions for installing LVT and textiles stand out for the completeness and high performance of the various systems which enable corridors and rooms to be accessible within a very short time.



- 1 Old ceramic flooring
- 2 Eco Prim T Pro
- 3 Ultraplan Contract
- 4 Ultrabond Eco 4LVT
- 5 LVT



- 1** Topcem Pronto
- 2** Eco Prim T Plus
- 3** Planex HR Maxi
- 4** Mapeband ST
- 5** Mapegum WPS
- 6** Ultrabond Eco MS 4LVT Wall&Floor
- 7** LVT/SPC
- 8** Mapecoat 4LVT
- 9** Mapeflex MS Crystal
- 10** Cementitious render
- 11** Ultrabond Eco Decor Wet
- 12** Decorative glass fibre
- 13** Mapecoat Decor Protection

LAYING PROCEDURES

1

INSTALLATION SYSTEM FOR RESILIENT FLOORING ON **NEW AND EXISTING CEMENTITIOUS SCREEDS**

INSTALLATION SYSTEM

1.1 REFERENCE STANDARDS

1. UNI 11515-1 - 2020

Resilient and laminate flooring
Part 1: Design, installation and maintenance instructions

2. EN 13813

Screeds and screed materials
Screed materials
Properties and requirements

1.2 SUBSTRATE PREPARATION

1. Cementitious screeds and screeds made from special binders designed to receive resilient and laminate flooring must be classified according to EN 13813 as follows:

- C20 F5 for pedestrian use;
- C30 F6 for all other areas of use.

2. The minimum thickness of an isolated screed varies according to the area of use of the flooring: 4 cm for pedestrian use, 6 cm for all other areas of use.

Create the isolated screed to the design thickness by placing an isolating layer (which also acts as a vapour barrier) made from sheets of polythene at least 300 µm thick.

3. For existing screeds that do not have the performance properties specified in UNI 11515 section 6.1.1.2, check the screed to assess what work needs to be carried out in order for it to reach the minimum requirements, such as:

- consolidation;
- waterproofing treatment (for cementitious screeds and screeds made with special binders only);
- restoring the screed to the thickness and flatness required.

4. Substrates must be sound and free of all traces of dust, loose or detached areas, paint, wax, oil, rust and traces of gypsum.

5. Cementitious-based surfaces that are not sufficiently sound must be removed or, where possible, consolidated with a suitable MAPEI system (such as **Prosfas**, **Eco Prim PU 1K** or **Primer MF**).

6. Any cracks in the sub-layer must be repaired with **Eporip** or **Eporip SCR**.

1.3 PRIMER

Well-cured cementitious screeds with good mechanical properties and no cracks must be treated with suitable primer to fix any surface dust and to even out absorption of the sub-layer.

A. ECO PRIM T EASY

Primer for internal applications to improve adhesion of skim coats; suitable for all types of absorbent, cementitious-based screeds and anhydrite or gypsum-based screeds.

APPLICATION

- Apply **Eco Prim T Easy** diluted 1:1 with water or neat, generally on cementitious sub-layers with a brush or roller.
- A smoothing layer may then be applied around 30 minutes after applying the primer, according to surrounding conditions.

B. ECO PRIM T PLUS

Universal primer for internal applications to improve adhesion of skim coats on all absorbent and non-absorbent surfaces.

APPLICATION

- Apply **Eco Prim T Plus** diluted with water according to the level of absorption of the substrate on cementitious or anhydrite sub-layers with a brush or roller.
- A smoothing layer may then be applied 0-30 minutes after applying the primer, according to surrounding conditions.

1.4 SELF-LEVELLING SMOOTHING LAYER

After preparing the screed as specified and checking that it has the mechanical properties prescribed above, apply a levelling layer as follows:

A. ULTRAPLAN (CT - C30 F7 A2_{FL} -s1)

Self-levelling ultra-rapid-hardening smoothing mortar applied in layers 1 to 10 mm thick.

APPLICATION

- Pour a 23 kg bag of **Ultraplan** into a container with 5.75-6 litres (25-26%) of clean water while mixing and continue mixing with a paddle mixer at low-speed.
- Spread the **Ultraplan** over the surface in a single layer 1 to 10 mm thick with a large metal trowel or rake.

B. ULTRAPLAN CONTRACT (CT- C30 F6 A1_{FL})

Self-levelling ultra-rapid-hardening smoothing mortar applied in layers 1 to 10 mm thick.

APPLICATION

- Pour a 24 kg bag of **Ultraplan Contract** into a container with 5.75-6 litres (24-25%) of clean water while mixing and continue mixing with a paddle mixer at low-speed.
- Spread the **Ultraplan Contract** over the surface in a single layer 1 to 10 mm thick with a large metal trowel or rake.

C. ULTRAPLAN ECO (CT- C25 F7 A2_{FL}-s1)

Self-levelling ultra rapid-hardening smoothing mortar applied in layers 1 to 10 mm thick.

APPLICATION

- Pour a 23 kg bag of **Ultraplan Eco** into a container with 5.5-5.75 litres (24-25%) of clean water while mixing and continue mixing with a paddle mixer at low-speed.
- Spread the **Ultraplan Eco** over the surface in a single layer 1 to 10 mm thick with a large metal trowel or rake.

1.5 ADHESIVES

Installation of resilient flooring may be carried out with one of the following adhesives:

A. ULTRABOND ECO V4 SP

Universal high-performance adhesive in water dispersion for installing all types of resilient and textile flooring and wall coverings.

B. ULTRABOND ECO V4 EVOLUTION

Universal "all-in-one" adhesive in water dispersion with rapid high initial tack and extended open time for installing all types of resilient and textile flooring and wall coverings.

C. ULTRABOND 333

Multi-purpose adhesive with extended open time for installing vinyl, textile and linoleum flooring and wall coverings.

D. ULTRABOND ECO 388

Adhesive with a rapid strong initial bond and very long open time for PVC and LVT.

E. ULTRABOND ECO 4 LVT

Fibre-reinforced adhesive. Specific for LVT, SPC and rigid LVT with excellent adhesion and dimensional stability.

F. ULTRABOND ECO MS 4 LVT WALL & FLOOR

One-component silylated polymer-based adhesive for installing LVT on floors and walls.

G. ULTRABOND ECO MSI

One-component silylated polymer-based universal adhesive for resilient and textile flooring. Particularly recommended for static and dynamic loads, including intense loads.

H. ADESILEX G20

Two-component low viscosity epoxy-polyurethane adhesive for installing all types of resilient and textile flooring on absorbent and non-absorbent sub-layers, particularly when exposed to extreme temperatures due to direct sunlight, intense mechanical loads and stresses and frequent cleaning.

APPLICATION

- Spread the amount of adhesive required over the substrate with a suitable notched trowel.
- Install the resilient flooring, making sure the adhesive does not exceed its open time in order to guarantee sufficient wetting of the back of the flooring.

2

“FAST TRACK” RAPID INSTALLATION SYSTEM FOR RESILIENT FLOORING ON NEW AND EXISTING CEMENTITIOUS SCREEDS

INSTALLATION SYSTEM

1.1 REFERENCE STANDARDS

1. 11515-1 - 2020

Resilient and laminate flooring
Part 1: Design, installation and maintenance instructions

2. EN 13813

Screeds and screed materials
Screed materials
Properties and requirements

1.2 SUBSTRATE PREPARATION

1. Cementitious screeds and screeds made from special binders designed to receive resilient and laminate flooring must be classified according to EN 13813 as follows:

- C20 F5 for pedestrian use;
- C30 F6 for all other areas of use.

2. The minimum thickness of an isolated screed varies according to the area of use of the flooring: 4 cm for pedestrian use, 6 cm for all other areas of use.

Create the isolated screed to the design thickness by placing an isolating layer (which also acts as a vapour barrier) made from sheets of polythene at least 300 µm thick.

3. For existing screeds that do not have the performance properties specified in UNI 11515 section 6.1.1.2, check the screed to assess what work needs to be carried out in order for it to reach the minimum requirements, such as:

- consolidation;
- waterproofing treatment (for cementitious screeds and screeds made with special binders only);
- restoring the screed to the thickness and flatness required.

4. Substrates must be sound and free of all traces of dust, loose or detached areas, varnish, wax, oil, rust and traces of gypsum.

5. Cementitious-based surfaces that are not sufficiently sound must be removed or, where possible, consolidated with a suitable **Mapei** system (such as **Prosfas**, **Eco Prim PU 1K** or **Primer MF**).

6. Any cracks in the sub-layer must be repaired with **Eporip** or **Eporip SCR**.

1.3 PRIMER

Well-cured cementitious screeds with good mechanical properties and no cracks must be treated with suitable primer to fix any surface dust and to even out absorption of the sub-layer.

A. ECO PRIM T EASY

Primer for internal applications to improve adhesion of skim coats; suitable for all types of absorbent, cementitious-based screeds and anhydrite or gypsum-based screeds.

APPLICATION

- Apply **Eco Prim T Easy** diluted 1:1 with water water or neat, generally on cementitious sub-layers with a brush or roller.
- A smoothing layer may then be applied around 30 minutes after applying the primer, according to surrounding conditions.

B. ECO PRIM T PLUS

Universal primer for internal applications to improve adhesion of skim coats on all absorbent and non-absorbent surfaces.

APPLICATION

- Apply **Eco Prim T Plus** diluted with water according to the level of absorption of the substrate on cementitious or anhydrite sub-layers with a brush or roller.
- A smoothing layer may then be applied 0-30 minutes after applying the primer, according to surrounding conditions.

1.4 SMOOTHING LAYER

After preparing the screed as specified and checking that it has the mechanical properties prescribed above, apply a levelling layer as follows:

A. PLANIPREP FAST TRACK (C40-F7-A2_{FL}-s1)

Self-levelling ultra rapid-hardening smoothing compound for layers 1 to 20 mm thick. Ideal for restoring floors that need to be put back into service very quickly; install flooring around 12 hours after application and after around 6 hours for layers up to 5 mm thick.

APPLICATION

- Pour a 23 kg bag of **Ultraplan Fast Track** into a container with around 5.75-6.0 litres (25-26%) of clean water while mixing and continue mixing with a paddle mixer at low-speed.
- Spread the **Planiprep Fast Track** over the surface in a single layer 1 to 20 mm thick with a large metal trowel or rake.

3

RESTORATION WORK: **OVERLAYING EXISTING TERRAZZO OR CERAMIC FLOORING** WITH RESILIENT FLOORING

1.5 ADHESIVES

Installation of resilient flooring may be carried out with one of the following adhesives:

A. ULTRABOND ECO FAST TRACK

Universal rapid-setting adhesive for rapid repairs to resilient and textile flooring. Also suitable for bonding coving and steps.

B. ADESILEX G20 FAST

Two-component low viscosity epoxy-polyurethane adhesive for installing all types of resilient and textile flooring on absorbent and non-absorbent sub-layers, particularly when exposed to extreme temperatures due to direct sunlight, intense mechanical loads and stresses and frequent cleaning.

APPLICATION

- Spread the amount of adhesive required over the substrate with a suitable notched trowel.
- Install the resilient flooring, making sure the adhesive does not exceed its open time in order to guarantee sufficient wetting of the back of the flooring.

INSTALLATION SYSTEM

1.1 REFERENCE STANDARDS

1. UNI 11515-1 - 2020

Resilient and laminate flooring
Part 1: Design, installation and maintenance instructions

1.2 SUBSTRATE PREPARATION

1. Check that the existing flooring is well anchored to the substrate.
2. Thoroughly clean the surface with water and caustic soda or a de-waxing product.

1.3 PRIMER

Particularly shiny floors may need to be lightly sanded and treated with an adhesion promoting primer such as:

A. ECO PRIM T PLUS

Universal primer for internal applications to improve adhesion of skim coats on all absorbent and non-absorbent surfaces.

APPLICATION

- Apply **Eco Prim T Plus** diluted with water according to the level of absorption of the substrate on cementitious or anhydrite sub-layers with a brush or roller.
- A Smoothing layer may then be applied around 30-60 minutes after applying the primer, according to surrounding conditions.

B. ECO PRIM GRIP PLUS

Universal adhesion promoter supplied ready to use with very low emission of volatile organic compounds and almost no odour for internal and external cementitious smoothing layers, render and adhesives.

APPLICATION

- Apply **Eco Prim Grip Plus** on the sub-layer with a brush or roller.
- A smoothing layer may then be applied around 30-60 minutes after applying the primer, according to surrounding conditions.

1.4 SELF-LEVELLING AND THIXOTROPIC SMOOTHING LAYERS

After preparing the screed as specified and checking that it has the mechanical properties prescribed above, apply a levelling layer as follows:

A. ULTRAPLAN (CT - C30 F7 A2_{FL}-s1)

Self-levelling ultra rapid-hardening smoothing mortar applied in layers 1 to 10 mm thick.

APPLICATION

- Pour a 23 kg bag of **Ultraplan** into a container with 5.75-6 litres (25-26%) of clean water while mixing and continue mixing with a paddle mixer at low-speed.
- Spread the **Ultraplan** over the surface in a single layer 1 to 10 mm thick with a large metal trowel or rake.

B. ULTRAPLAN CONTRACT (CT- C30 F6 A1_{FL})

Self-levelling ultra rapid-hardening smoothing mortar applied in layers 1 to 10 mm thick.

APPLICATION

- Pour a 24 kg bag of **Ultraplan Contract** into a container with 5.75-6 litres (24-25%) of clean water while mixing and continue mixing with a paddle mixer at low-speed.
- Spread the **Ultraplan Contract** over the surface in a single layer 1 to 10 mm thick with a large metal trowel or rake.

C. ULTRAPLAN ECO (CT- C25 F7 A2_{FL}-s1)

Self-levelling ultra rapid-hardening smoothing mortar applied in layers 1 to 10 mm thick.

APPLICATION

- Pour a 23 kg bag of **Ultraplan Eco** into a container with 5.5-5.75 litres (24-25%) of clean water while mixing and continue mixing with a paddle mixer at low-speed.
- Spread the **Ultraplan Eco** over the surface in a single layer 1 to 10 mm thick with a large metal trowel or rake.

D. ULTRAPLAN XTRA (C40-F7-A2_{FL}-s1)

Self-levelling ultra rapid-hardening smoothing mortar for layers 1 to 20 mm thick. Ideal for restoring floors that need to be put back into service very quickly; install flooring around 12 hours after application and after around 6 hours for layers up to 5 mm thick.

APPLICATION

- Pour a 23 kg bag of **Ultraplan Xtra** into a container with 5.75-6 litres (25-26%) of clean water while mixing and continue mixing with a paddle mixer at low-speed.
- Spread the **Ultraplan Xtra** over the surface in a single layer 1 to 20 mm thick with a large metal trowel or rake.

E. ULTRAPLAN RENOVATION (CT- C25 F6 A1_{FL})

Self-levelling fibre-reinforced rapid-drying smoothing mortar applied in layers 3 to 40 mm thick.

Particularly recommended for smoothing over existing sub-layers including wood.

APPLICATION

- Pour a 25 kg bag of **Ultraplan Renovation** into a container with 4.25-4.50 litres (17-18%) of clean water while mixing and continue mixing with a paddle mixer at low-speed.
- Spread the **Ultraplan Renovation** over the surface in a single layer with a large metal trowel or rake.

For localised repairs, restore the substrate with:

F. PLANIPATCH XTRA

Thixotropic ultra rapid-drying skimming mortar applied in layers up to 25 mm thick for skimming internal floors, walls, corners and edges down to a feather edge when an ultra rapid-hardening and drying product is required.

APPLICATION

- Pour a 23 kg bag of **Planipatch Xtra** into a container with 6.5-6.7 litres (28-29%) of clean water while mixing and continue mixing with a paddle mixer at low-speed.
- Apply the mix with a long-bladed metal trowel.

1.5 ADHESIVES

Installation of resilient flooring may be carried out with one of the following adhesives:

A. ULTRABOND ECO V4 SP

Universal high-performance adhesive in water dispersion for installing all types of resilient and textile flooring and wall coverings.

B. ULTRABOND ECO V4 EVOLUTION

Universal "all-in-one" adhesive in water dispersion with rapid, high initial tack and extended open time for installing all types of resilient and textile flooring and wall coverings.

C. ULTRABOND ECO 4 LVT

Fibre-reinforced adhesive. Specific for LVT, SPC and rigid LVT with excellent adhesion and dimensional stability.

D. ULTRABOND 333

Multi-purpose adhesive with extended open time for installing vinyl, textile and linoleum flooring and wall coverings.

E. ULTRABOND ECO 388

Adhesive with a rapid strong initial bond and very long open time for PVC and LVT.

F. ULTRABOND ECO FAST TRACK

Universal rapid-setting adhesive for rapid repairs to resilient and textile flooring. Also suitable for bonding coving and steps.

G. ULTRABOND ECO MS 4 LVT WALL & FLOOR

One-component silylated polymer-based adhesive for installing LVT on floors and walls.

H. ULTRABOND ECO MSI

One-component silylated polymer-based universal adhesive for resilient and textile flooring. Particularly recommended for static and dynamic loads, including intense loads.

I. ADESILEX G20

Two-component low viscosity epoxy-polyurethane adhesive for installing all types of resilient and textile flooring on absorbent and non-absorbent sub-layers, particularly when exposed to extreme temperatures due to direct sunlight, intense mechanical loads and stresses and frequent cleaning.

L. ADESILEX G20 FAST

Two-component low viscosity epoxy-polyurethane adhesive for installing all types of resilient and textile flooring on absorbent and non-absorbent sub-layers, particularly when exposed to extreme temperatures due to direct sunlight, intense mechanical loads and stresses and frequent cleaning.

APPLICATION

- Spread the amount of adhesive required over the substrate with a suitable notched trowel.
- Install the resilient flooring, making sure the adhesive does not exceed its open time in order to guarantee sufficient wetting of the back of the flooring.

OTHER USEFUL STANDARDS FOR RESILIENT AND LAMINATE FLOORING

UNI 10329 Floor covering laying – Measurement of moisture content in cementitious or similar floor screeds

EN 204 Classification of thermoplastic wood adhesives for non-structural applications

EN 205 Adhesives – Wood adhesives for non-structural applications – Determination of tensile shear strength of lap joints

EN 425 Resilient and laminate floor coverings – Castor chair test

EN 438-5 High pressure decorative laminates (HPL) – Sheets based on thermosetting resins (usually called laminates) - Part 5: Classification and specifications for flooring grade laminates less than 2 mm thick intended for bonding to supporting substrate

EN ISO 24011 Resilient floor coverings – Specification for plain and decorative linoleum

EN ISO 10581 - 10582 Resilient floor coverings – Homogeneous and heterogeneous floor coverings based on polyvinyl chloride - Specification

EN 650 Resilient floor coverings – Polyvinyl chloride floor coverings on jute backing or on polyester felt backing or on polyester felt with polyvinyl chloride - Specification

EN ISO 26986 Resilient floor coverings – Expanded (cushioned) polyvinyl chloride floor covering - Specification

EN 652 Resilient floor coverings – Polyvinyl chloride floor coverings with cork-based backing - Specification

EN 653 Resilient floor coverings – Expanded (cushioned) polyvinyl chloride floor coverings - Specification

EN ISO 10595 Resilient floor coverings – Semi-flexible/vinyl composition (VCT) polyvinyl chloride floor tiles - Specification

EN 686 Resilient floor coverings – Specification for plain and decorative linoleum on a foam backing

EN 687 Resilient floor coverings - Specification for plain and decorative linoleum on a corkment backing

EN 1081 Resilient floor coverings – Determination of the electrical resistance

EN 1372 Adhesives – Test method for adhesives for floor and wall coverings – Peel test

EN 1373 Adhesives – Test method for adhesives for floor and wall coverings – Shear test

EN 1816 Resilient floor coverings – Specification for homogeneous and heterogeneous smooth rubber floor coverings with foam backing

EN 1817 Resilient floor coverings – Specification for homogeneous and heterogeneous smooth rubber floor coverings

EN 1841 Adhesives – Test methods for adhesives for floor and wall coverings – Determination of dimensional changes of a linoleum floor covering in contact with an adhesive

EN 1903 Adhesives – Test method for adhesives for plastic or rubber floor or wall coverings – Determination of dimensional changes after accelerated ageing

EN 12199 Resilient floor coverings – Specifications for homogeneous and heterogeneous relief rubber floor coverings

EN 13318 Screed material and floor screeds. Definitions

EN 13329 laminate floor coverings – Elements with a surface layer based on aminoplastic thermosetting resins – Specifications, requirements and test methods

EN 13501-1 Fire classification of construction products and building elements - Part 1: Classification using test data from reaction to fire

EN 13813 Screed material and floor screeds – Screed material – Properties and requirements

EN 13845 Resilient floor coverings – Polyvinyl floor coverings with particle based enhanced slip resistance – Specification

EN 14041 Resilient textile and laminate floor coverings – Essential characteristics

EN 14259 Adhesives for floor coverings – Requirements for mechanical and electrical performance

EN 14521 Resilient floor coverings – Specification for smooth rubber floor coverings with or without foam backing with a decorative layer

EN 14565 Resilient floor coverings – Floor coverings based upon synthetic thermoplastic polymers - Specification

EN ISO 10874:2012 Resilient, textile and laminate floor coverings - Classification

EDUCATION

SYSTEMS FOR LAYING RESILIENT FLOORS

*Our thanks to Artigo S.p.A. and Gerflor S.p.A.
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EVERYTHING'S OK WITH MAPEI

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