



Education

Intelligent Flooring Solutions



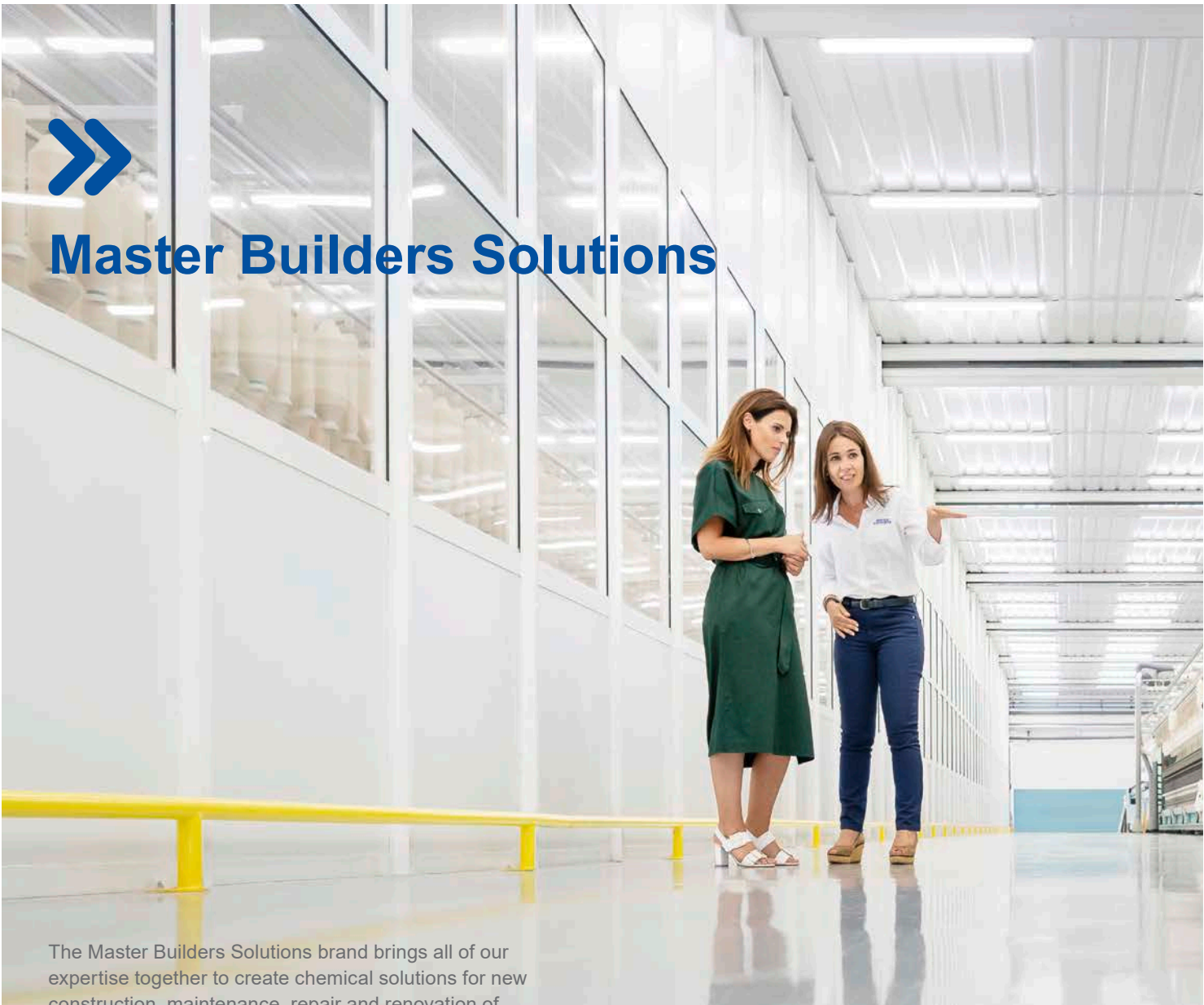
Our reference in Ostrov nad Ohří (Czech Republic):
School CTVO

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Master Builders Solutions



The Master Builders Solutions brand brings all of our expertise together to create chemical solutions for new construction, maintenance, repair and renovation of structures. Master Builders Solutions is built on the experience gained from more than a century in the construction industry. The know-how and experience of a global community of construction experts form the core of Master Builders Solutions.

We combine the right elements from our portfolio to solve your specific construction challenges. We collaborate across areas of expertise and regions and draw on the experience gained from countless construction projects worldwide. We leverage global technologies, as well as our in-depth knowledge of local building needs, to develop innovations that help make you more successful and drive sustainable construction.

The comprehensive portfolio under the Master Builders Solutions brand encompasses concrete admixtures, cement additives, solutions for underground construction, waterproofing solutions, sealants, concrete repair & protection solutions, performance grouts, performance flooring solutions and solutions for on- and offshore wind energy.

Our comprehensive portfolio

- Concrete admixtures
- Cement additives
- Chemical solutions for underground construction
- Waterproofing solutions
- Sealants
- Concrete repair and protection solutions
- Performance grouts
- Wind turbine grouts
- Performance flooring solutions



Seamless. Knowledge.

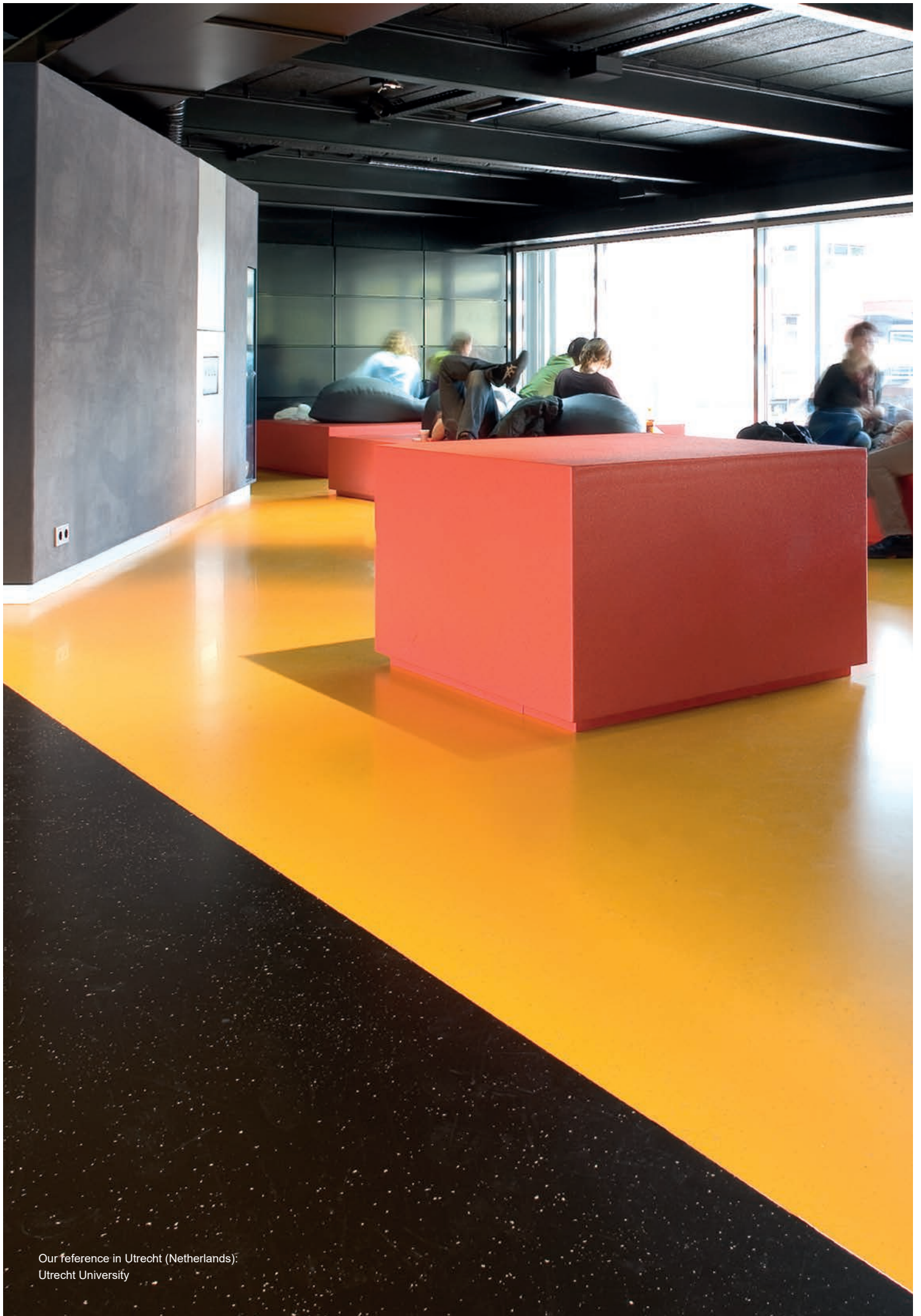
Finding the perfect floor finish. Our Master Builders Solutions experts supply you with exactly the right grounding you need for your educational facility – be it a kindergarten, school or university.

A good education lays the foundation for later success. The same applies to floors; the choice of floor finishes is one of the key factors that determine the quality of a room when it is in use. One of the cornerstones of successful education is a healthy and stimulating learning environment in pleasant and friendly surroundings. The floor has a major impact on those features, meeting essential decorative and functional requirements – whether in kindergartens, schools or universities.

With Master Builders Solutions, you have a strong partner for your project. We at Master Builders Solutions can look back on more than one hundred years of experience in construction chemicals. Thanks to our history and continuous investment in research and development, we are uniquely qualified to develop optimum product solutions. As a specialist in seamless flooring systems, we offer tailor-made solutions for a wide range of applications that are not only outstandingly well-suited to meet functional requirements but also allow interior designers considerable scope for creativity.



Our reference in Dresden (Germany):
80. elementary school Dresden



Our reference in Utrecht (Netherlands):
Utrecht University



Our reference in Neerpelt (Belgium):
Duimelot daycare facility for children



Our reference in Wilchingen (Switzerland):
Haus Pereira



Playing with Possibilities

Over the next few years, the main emphasis in building work for education facilities will shift from new building projects to refurbishment and modernization. Demographic change calls for new concepts and uses. Conditions are therefore ideal for a flooring system with the versatility to adapt to existing building designs and complex floor shapes.

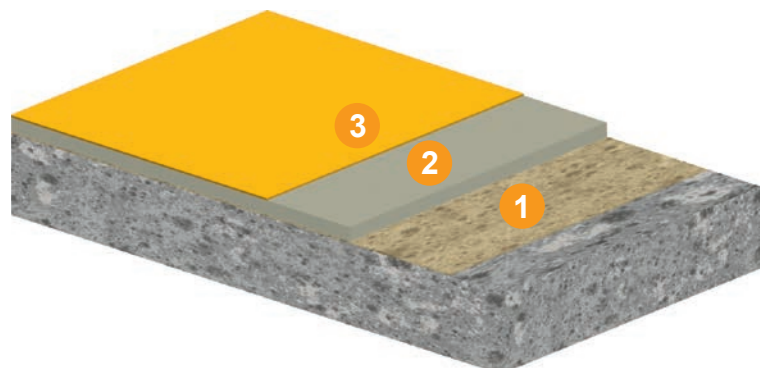
Attractive and functional

The wide variety of colors we offer will help you structure a building while at the same time creating a positive atmosphere. These flooring systems are not only attractive, but also meet a variety of technical requirements including

noise reduction, resistance to mechanical and chemical stress and ease of cleaning. As MasterTop flooring systems are applied in liquid form, they have a number of advantages. Our easy-to-use products allow fast processing and convincingly short installation times. Their surface is homogeneous and seamless apart from expansion joints. They are therefore easy to clean, thus saving you time and money. Together with a long service life, these properties ensure the delivery of economical floors for educational facilities.

The multi-layer structure of these flooring systems makes them highly versatile.

- 1 Primer**
Establishes a monolithic bond to the substrate.
- 2 Body Coat**
Reactive resin applied in liquid form; determines the mechanical properties of the flooring.
- 3 Top Coat**
Ensures an attractive scratch-proof surface and offers a variety of design possibilities.





Flooring Systems for Education and Research

Every floor is different: the surroundings, the location of a floor within the building and the loads it faces mean requirements that are almost unique – hallways, classrooms, laboratories and libraries are all different. Our seamless flooring systems are applied in liquid form and can be adapted to the individual requirements of each specific project. The floors produced fit as well as a bespoke suit, but last much, much longer.

A holistic consulting approach

Our Master Builders Solutions experts offer a comprehensive service to support you – be it as an owner, designer, architect or contractor, from conceptual design through to the completion of your project. Our holistic consultancy approach includes supporting you during each stage of the design and decision-making process. Using your project requirements, our specialist staff will show you the wide range of possibilities that are available. This way, you can always be sure that you choose the right floor for your refurbishment, modernization or new building project.

For further information, go to:
www.master-builders-solutions.com



Your benefits at a glance

Individual:

- Colors and design offer scope for creativity
- Wide range of colors

Excellent environmental performance:

- Low emissions in accordance with AgBB (Committee for the Health Assessment of Construction Products) requirements
- Non-solvent systems
- Use of renewable raw materials



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- 3 Teaching kitchens and canteens (pages 14–15)
- 4 Physics and chemistry laboratories (pages 16–17)
- 5 Sanitary facilities (pages 18–19)
- 6 Basements and technical rooms (pages 20–21)

Reliable and versatile:

- Seamless flooring
- Ideal for rooms with complex shapes
- Special properties, such as sound-deadening, non-yellowing and anti-slip

Economical:

- Strong, abrasion-resistant surface with a long service life
- Low maintenance expenses thanks to easy cleaning of seamless surfaces
- Low life-cycle cost



Classrooms, Lecture Theatres and Meeting Rooms

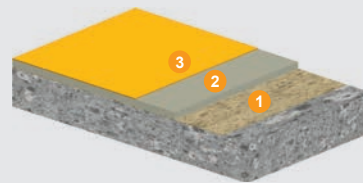
Education facilities are places of exchange. Places where knowledge is imparted and people communicate with each other and spend time together. The floor is a key structural element, laying the foundations for a good atmosphere. Walking comfort is just as important for a student's wellbeing as the appearance of a floor defined by design and choice of colors – now and after years of use.

All the features you are looking for

Our MasterTop 1325 has a number of advantages in applications like this. The homogeneous surfaces of MasterTop floor finishes are quick and easy to clean. There are no joints, eliminating the weak points these represent, and the floor retains its properties over its entire service life. The floor finish ensures a high level of user comfort. The elastic polyurethane-based flooring system significantly reduces impact noise and provides high walking comfort. The wide range of colors available gives you considerable design freedom and leaves nothing to be desired. This is the ideal floor for rooms where people work and learn.

System example MasterTop 1325*

For colorful floors with high walking comfort.



- 1 Primer
- 2 Body Coat
- 3 Top Coat: standard, anti-slip (R) or antibacterial (AB) versions

System features

- Low emissions in accordance with AgBB
- Fire protection class Bfl-s1
- Odourless
- Suitable for underfloor heating
- Smooth or anti-slip
- Variable thickness
- Abrasion-resistant, suitable for castor wheel use
- Long service life (up to 50 years)

System benefits

- Excellent walking properties; relieves stress on joints
- Reliable use in rooms with complex shapes
- Easy cleaning of seamless surface for low maintenance expenses
- Low life-cycle costs

Other applications

Offices and common rooms, canteens, assembly halls, hallways, foyers

Other suitable systems

- **MasterTop 1324** – for floors with especially high resistance to mechanical and chemical loads.
- **MasterTop 1326** – for comfort floors in creative colors and designs.
- **MasterTop 1327** – for floors with excellent walking comfort and sound-deadening properties, applied monolithically.

* The appropriate flooring system must be selected on the basis of the particular requirements for the individual project.



Our reference in Dresden (Germany):
80. elementary school Dresden



Our reference in Vejle (Denmark):
Kirkebakkeskolen school



Libraries, Reading Rooms and Music Rooms

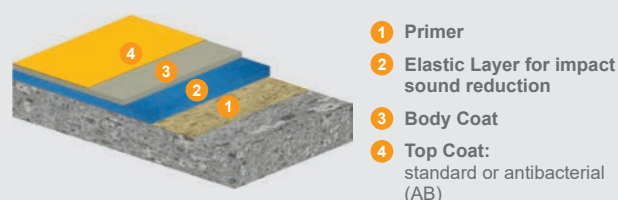
There are rooms which simply cannot perform their functions without a suitable floor. In a library, for example, a quiet atmosphere is almost as important as a wide range of books. In many other areas, it is also essential to avoid extraneous noise as far as possible. While many floor coverings seem to attract dirt, MasterTop flooring systems combine high cleaning efficiency with a wide range of design possibilities and excellent sound-deadening properties.

Silence is golden

MasterTop 1327 is the first polyurethane-resin-based flooring system with a flow-applied elastic layer to minimize footfall noise and impact sound. In the room itself, the flooring provides a high level of walking comfort and virtually eliminates footfall noise. MasterTop 1327 cuts vertical impact sound by 15–18 dB, reducing the noise you hear by half. Like all MasterTop flooring systems, the surface is homogeneous and easy to clean, retaining its high quality in the long term. Any special design requirements you have can also be met. With the variety of colors and design possibilities, we offer you considerable scope for creativity.

System example MasterTop 1327*

For floors with excellent walking comfort and sound-deadening properties, applied monolithically.



System features

- Low emissions in accordance with AgBB
- Fire protection class Bfl-s1
- Odourless
- Self-levelling
- Reduces transversal sound transmission by 15–18 dB
- Suitable for underfloor heating
- Smooth or anti-slip
- Non-yellowing
- Abrasion-resistant, suitable for use of castors
- Long service life (up to 50 years)

System benefits

- Individual floor design and wide range of colors
- Environmentally friendly and sustainable
- Excellent walking properties; relieves stress on joints
- Energy absorbing; reduces the risk of injury in the event of falls
- Reliable use in rooms with complex shapes
- Easy cleaning of seamless surface for low maintenance expenses
- Low life-cycle costs

Other applications

Seminar rooms

Other suitable systems

- **MasterTop 1325** – for colorful floors with excellent sound-deadening properties.

*The appropriate flooring system must be selected on the basis of the particular requirements for the individual project.



Teaching Kitchens and Canteens

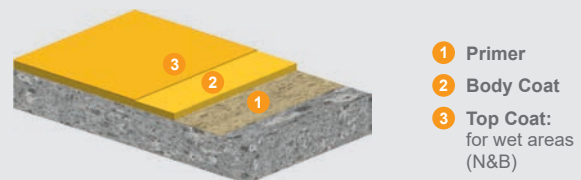
Those who want to train people in the fine art of cooking should first take special care in selecting the best “recipe” for their floors. Where many budding chefs are at work, drips, spills and even ingredients can easily land on the floor. Dishes which are tasty when served on a plate soon become a hazard on the floor because moisture and grease are very slippery. An easy-to-clean floor covering which remains safe to walk on, even when moist or wet, is therefore essential in kitchens and canteens.

Clean and slip-resistant

Our MasterTop 1324 N&B is especially designed for use in wet areas and is outstandingly well-suited for decorative anti-slip floors. Other advantages are its mechanical strength and its resistance to chemical attack. Where foodstuffs are processed, hygiene is essential. Thanks to the homogeneous surface, spills can be removed quickly and easily. These floors are the foundations of successful cooking.

System example MasterTop 1324 N&B*

For tough anti-slip flooring in wet areas.



System features

- High wear resistance
- Low emissions in accordance with AgBB
- Fire protection class Bfl-s1
- Highly chemical-resistant
- Anti-slip (class A and B, R11)
- Odourless
- Long service life (up to 50 years)

System benefits

- For hygienic surfaces and minimal risk of injury in wet areas
- Easy cleaning of seamless surface for low maintenance expenses
- Low life-cycle costs

Other applications

Cold food preparation areas, changing rooms and cabins, sanitary facilities

Other suitable systems

- **MasterTop 1325 R** – for slip-resistant colorful floors with high walking comfort.
- **Ucrete UD200** – for floors in heavy-use areas and where high temperature or chemical spillage is to be encountered.

* The appropriate flooring system must be selected on the basis of the particular requirements for the individual project.



Our reference in Izmir (Turkey):
Yasar University
© Ozzy Turan



Our reference in Dresden (Germany):
80. elementary school Dresden



Physics and Chemistry Laboratories

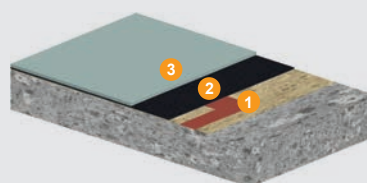
Practical work is the best way to arouse young people's scientific curiosity. Physics and chemistry in particular come to life through watching and conducting experiments in the laboratory. However, it is important to make sure that the floor can keep up with students' enthusiasm and does not become a source of hazards.

Making safety work

Our MasterTop 1324 AS flooring system is especially designed to meet these requirements. The floor finish features high resistance to chemicals and to mechanical loads. It does not matter if enthusiasm boils over and something is spilt. In addition, the flooring system has excellent antistatic properties, preventing the undesirable accumulation of static electricity, which can lead to electrostatic discharge. Clearly, antistatic properties are essential for rooms where experiments are carried out with inflammable materials. The outstanding properties of this system are also appreciated in the pharmaceutical and electronic industries, where MasterTop 1324 AS is used in many areas.

System example MasterTop 1324 AS*

For antistatic floors with high resistance to chemical attack and mechanical loads.



- 1 Primer
- 2 Conductive Primer
- 3 Body Coat: antistatic (AS)

System features

- Tough and abrasion resistant
- Highly chemical resistant
- Antistatic in accordance with EN 1081 and EN 61340
- Low emissions in accordance with AgBB
- Fire protection class Bfl-s1
- Static crack-bridging properties)

System benefits

- Durably conductive
- Safe for use in explosion hazard areas
- Easy cleaning of seamless surface for low maintenance expenses

Other applications

Technical rooms, computer and server rooms

Other suitable systems

- **MasterTop 1270 AS** – for antistatic floors with high mechanical strength.
- **MasterTop 1278 AS** – for antistatic floors with high resistance to chemical attack.

*The appropriate flooring system must be selected on the basis of the particular requirements for the individual project.



Sanitary Facilities

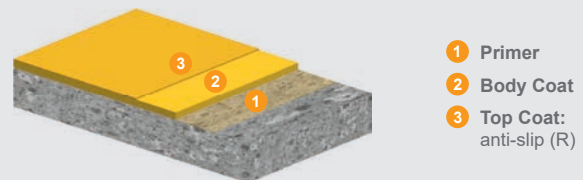
To stay clean and to keep up with the energy of young people at the same time, intensively used sanitary facilities in educational institutions face special requirements. Hygiene and ease of cleaning are key criteria for the selection of a floor finish. Just as important are anti-slip properties, especially in wet conditions, and a long service life.

Our MasterTop 1325 R flooring system is an excellent solution to these requirements. This low-stress floor ensures high walking comfort and is especially pleasant in barefoot areas like showers and changing rooms. The anti-slip properties ensure safety in wet areas and prevent accidents. As with all MasterTop flooring systems, the surface is homogeneous and easy to clean. In addition, polyurethane-based MasterTop flooring systems are extremely durable. These floors will still meet high hygiene and safety requirements when the first generation of pupils have started their careers.

Polyurethane floors can be perfectly complemented with our robust polyurethane wall systems, allowing creation of a seamless transition to the wall, ideal for wet rooms and avoiding corners where dirt may become trapped.

System example MasterTop 1325 R*

For slip-resistant colorful floors with high walking comfort.



System features

- Anti-slip
- Waterproof and crack-bridging
- Abrasion resistant
- Low emissions in accordance with AgBB
- Fire protection class Bfl-s1
- Suitable for underfloor heating
- Variable thickness
- Long service life (up to 50 years)

System benefits

- Excellent walking comfort in combination with anti-slip surface
- Reliable use in rooms with complex shapes
- Easy cleaning of seamless surface for low maintenance expenses
- Low life-cycle costs

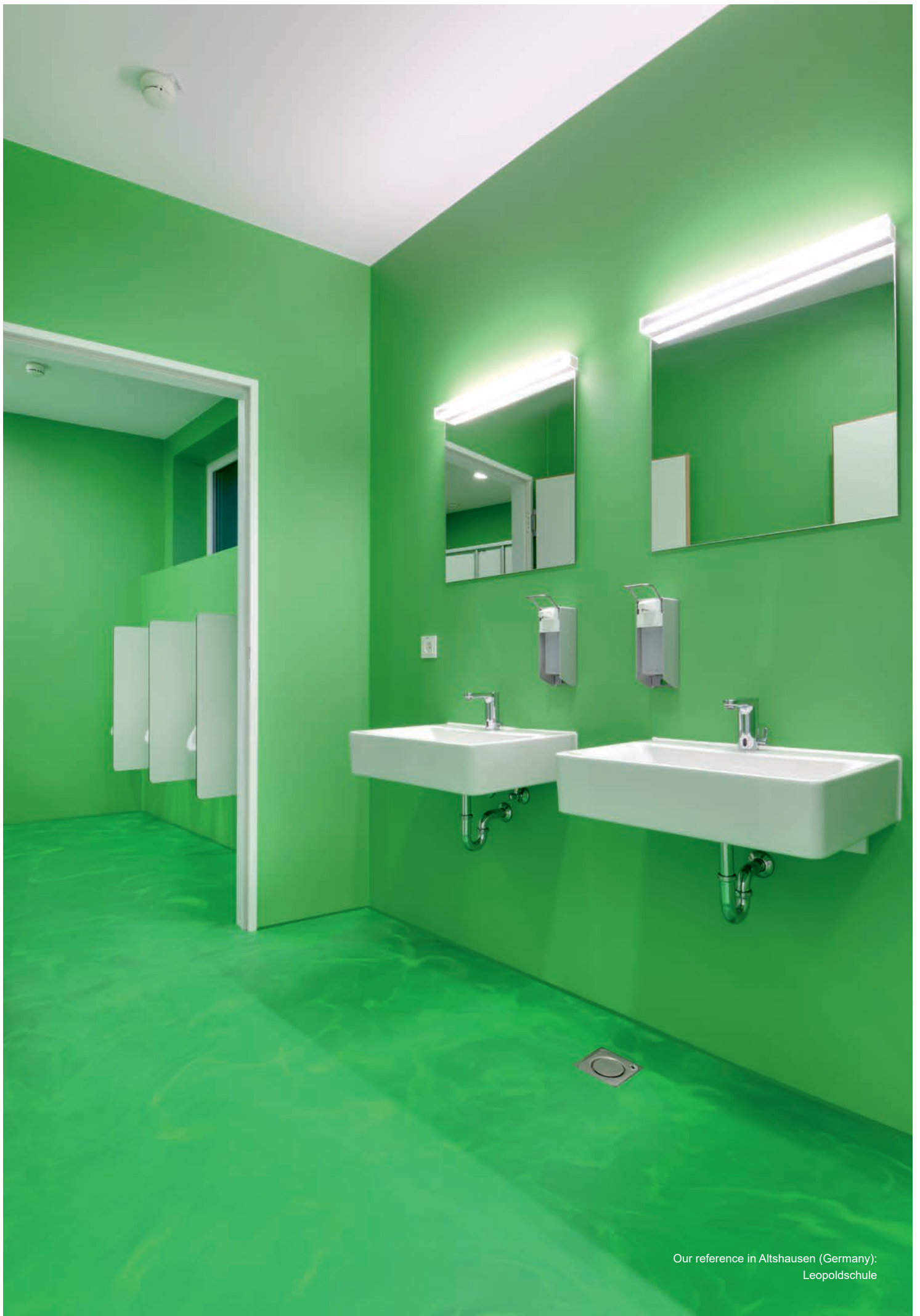
Other applications

Shower rooms and cabins, changing rooms, teaching kitchens

Other suitable systems

- **MasterTop 1324** – for floors with especially high resistance to mechanical and chemical loads.
- **MasterTop 1325** – for colorful floors with high walking comfort.
- **MasterTop WS 300 PU** – robust wall system with the same characteristics as our flooring systems

*The appropriate flooring system must be selected on the basis of the particular requirements for the individual project.



Our reference in Altshausen (Germany):
Leopoldschule



Our reference in Baar-Inwil (Switzerland):
Zuwebe (formerly Canton of Zug workshop for the disabled)
© Ottiger photography Zug/HTS Architekten, Cham



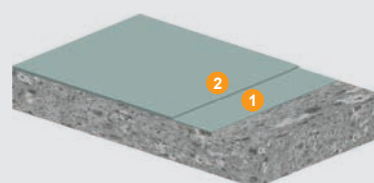
Basements and Technical Rooms

The requirements for floor coverings in technical rooms and basements are mainly functional. As with any construction element in contact with the ground, there is a risk of exposure to external moisture. Our flooring systems allow vapour diffusion, thus making them the right solution as they allow any moisture to evaporate from the substrate without damage to the floor coating, preventing the blisters commonly associated with rising moisture.

MasterTop 1785 is a water-based epoxy resin coating that is permeable to water vapour. Another positive feature is the easy application of the thin layer coating, which ensures fast construction progress even when large areas are coated. MasterTop 1785 can also be used as a wall coating.

System example MasterTop 1785*

Epoxy resin coating for light duty floors with vapour diffusion properties.



- 1 Primer
- 2 Coating standard or anti-slip (R) versions

System features

- Abrasion-resistant
- Water vapour permeable
- Fire protection class Bfl-s1
- Virtually odourless

System benefits

- A reliable solution for surfaces in contact with the ground
- Versatile use as coating for walls and floors

Other applications

Storage rooms

Other suitable systems

- **MasterTop 1730** – for tough floors with water vapour diffusion properties.
- **MasterTop 1273** – for smooth floors with high resistance to mechanical and chemical loads.

* The appropriate flooring system must be selected on the basis of the particular requirements for the individual project.



Master Builders Solutions: A Responsible Choice

Sustainable operations are especially important in the education sector. Funds which do not need to be spent on the maintenance of a facility can instead benefit pupils and students. To make a well-founded assessment of the cost of a flooring system, not only the initial investment, but also maintenance expenses, repairs and service life must be taken into account. This is the only way of effectively comparing different types of floor coverings.

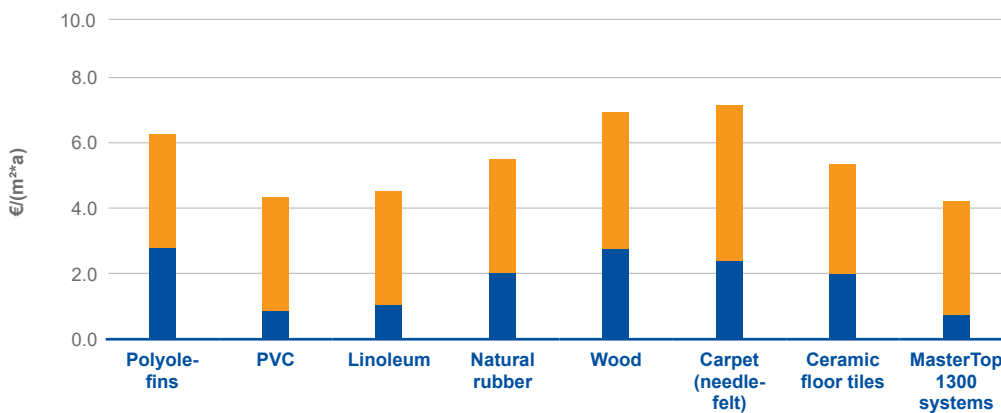
Longer service life

In a life-cycle analysis of this type, our flooring systems have repeatedly and convincingly demonstrated their cost-effectiveness. Did you know that 80 per cent of the total cost of a floor covering is not caused by installation but by cleaning and maintenance? Thanks to a homogeneous surface and a full-surface bond to the substrate, our floor systems are very easy to clean and therefore have very low maintenance costs throughout the service life of the floor.

In addition to our economic responsibility, we also have an environmental responsibility as a manufacturer of interior flooring systems. Naturally, our flooring systems meet the requirements of AgBB (Committee for the Health Assessment of Construction Products) criteria. Health hazards caused by volatile organic compounds emitted from the flooring are minimized.

We ensure that our systems are sustainable from raw material production through manufacture and application to disposal. Independent analyses confirm that many of our products are non-solvented, have low emissions and feature a high proportion of renewable raw materials. It is not only the tailor-made functional profiles of our products which are convincing, but also their economic and environmental aspects. You make a responsible choice when choosing our systems.

Durability and cost efficiency at a glance



	Polyolefins	PVC	Linoleum	Natural rubber	Wood	Carpet (needle-felt)	Ceramic floor tiles	MasterTop 1300 systems
Expected useful life (years)	20	25	25	25	40	15	40	50
Maintenance (cleaning) in €/m²·a	3.5	3.5	3.5	3.5	4.2	4.9	3.2	3.5
Floor covering costs in €/m²·a	2.7	0.9	1.0	2.0	2.4	2.4	2.0	0.7

Source: BMG Engineering AG



Our reference in Lucerne (Switzerland):
Eichwäldli home for the disabled



Master Builders Solutions for the Construction Industry

MasterAir

Complete solutions for air entrained concrete

MasterBrace

Solutions for concrete strengthening

MasterCast

Solutions for the manufactured concrete product industry

MasterCem

Solutions for cement manufacture

MasterEase

Low viscosity for high performance concrete

MasterEmaco

Solutions for concrete repair

MasterFinish

Solutions for formwork treatment and surface improvement

MasterFlow

Solutions for precision grouting

MasterFiber

Comprehensive solutions for fiber reinforced concrete

MasterGlenium

Solutions for high performance concrete

MasterInject

Solutions for concrete injection

MasterKure

Solutions for concrete curing

MasterLife

Solutions for enhanced durability

MasterMatrix

Advanced rheology control for concrete

MasterPel

Solutions for hydrophobization, anti-efflorescence and surface protection

MasterPolyheed

Solutions for mid-range concrete

MasterPozzolith

Solutions for water-reduced concrete

MasterProtect

Solutions for concrete protection

MasterRheobuild

Solutions for high strength concrete

MasterRoc

Solutions for underground construction

MasterSeal

Solutions for waterproofing and sealing

MasterSet

Solutions for set control

MasterSphere

Solutions for guaranteed freeze-thaw resistance

MasterSuna

Solutions for sand and gravel in concrete

MasterSure

Solutions for extraordinary workability retention

MasterTop

Solutions for industrial and commercial floors

Master X-Seed

Advanced accelerator solutions for concrete

Ucrete

Flooring solutions for harsh environments



QUANTIFIED SUSTAINABLE BENEFITS ADVANCED CHEMISTRY BY MASTER BUILDERS SOLUTION

Let the numbers do the talking: We have portrayed some of our most eco-efficient product solutions for concrete and precast production, construction, civil engineering, and flooring.

sustainability.master-builders-solutions.com



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