



Laboratories

Hygienic & Chemically
Resistant Flooring Solutions



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



Introduction

Seamless Resin Floor and Wall Solutions for Laboratories

A modern laboratory floor must provide functionality and aesthetic appeal, as well as having a long, low maintenance service life in order for it to be a truly successful finish.

A correctly specified floor should seamlessly integrate into the environment and allow for the working processes to proceed without interruption. The monolithically bonded, joint free surfaces of MasterTop polyurethane resin floor and wall finishes have a proven track record in medical, bioscience, pharmaceutical, chemical and veterinary medicine laboratories.

The elastomeric crack-bridging properties of MasterTop systems enable transitions between floors and walls to be completely seamless and joint free. Where maximum hygiene and bacterial cleanability is required, coved angles can be incorporated at the interface. The systems are all disinfectant, fumigant and sterilant resistant to provide the highest degree of sanitisation, in sensitive areas.

Systems are designed and independently tested by life cycle analysis to provide up to 50 years service life. Coupled with their low emissions certification, low in service maintenance costs and fully UV light stable coloured surfaces they are the ideal choice for any laboratory.

Features and Benefits at a glance

Chemically Resistant and Highly Cleanable

Resistant to a wide range of acids, alkalis and solvents as well as fumigants, sterilants and disinfectants

Crack-bridging

Elastomeric systems certified to EN1062-7 for seamless joint free resin floors and walls

Colours

16 standard RAL and special colours available allows full control of light reflectance values to enhance the working environment

UV Light Stable

Fully light stable finishes allowing light and bright colours to be selected without risk of yellowing

Low Emissions and Non-solvent Containing

Tested for VOC's and emissions to major European standards including AgBB, AFSSET and M1

Sustainable and Long Lasting

Independent 50 year life cycle assessments, LEED certification available and Environmental Product Declarations for all products to EN15804





Flooring Solutions

Hygienic & Chemically Resistant Resin Flooring Solutions

MasterTop 1324 elastomeric polyurethane is an ideal choice for laboratories, stores, plant rooms, corridors, offices and reception areas that require a hygienic, joint free, easy to clean, long lasting, UV light stable floor finish. It can be installed in three slip resistant finishes, smooth, micro-textured and textured to accommodate wet or dry environments.

System Features:

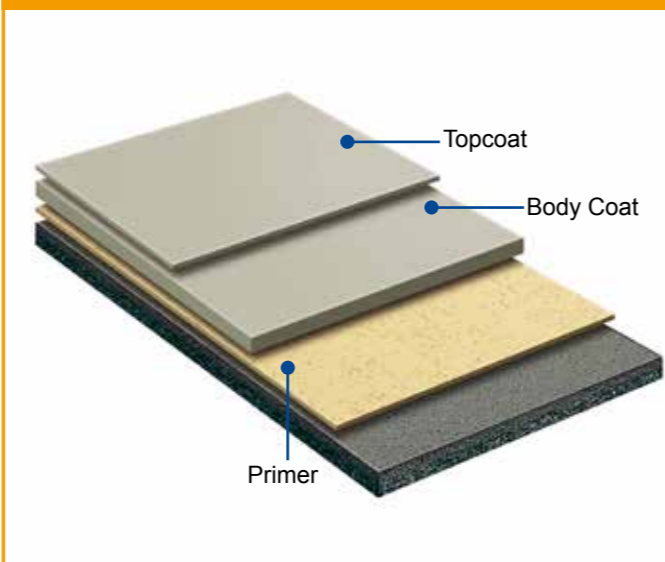
- Crack-bridging and Elastomeric for joint free floors
- UV light stable finishes

System Benefits:

- Monolithically bonded to the substrate
- Seamless and joint free application even over large areas or complex floor designs
- Systems available for use in CAT1 to CAT4 laboratories
- Easy to clean and disinfect and resistant to sterilisation by fumigation
- In service life cycle assessment up to 50 years

MasterTop 1324

For laboratories, corridors, storage and service area use where a decorative but durable, chemically resistant joint free floor is required.



MasterTop 1324ESD elastomeric polyurethane is an ideal choice for laboratories, stores and plant rooms that require a hygienic, electrostatic dissipative, joint free, easy to clean, long lasting, UV light stable floor finish. It is available as a smooth finish only.

System Features:

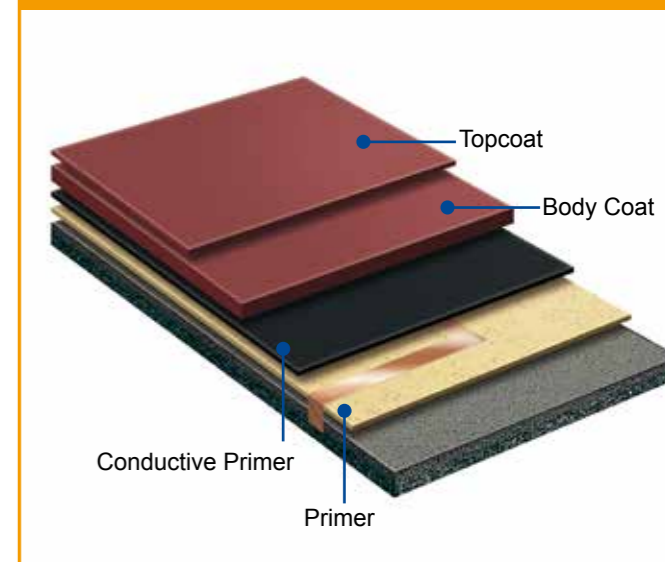
- Electrostatic dissipative to EN63140
- Crack-bridging and Elastomeric for joint free floors
- UV light stable finishes

System Benefits:

- Monolithically bonded to the substrate
- Seamless and joint free application even over large areas or complex floor designs
- Systems available for use in CAT1 to CAT4 laboratories
- Easy to clean and disinfect and resistant to sterilisation by fumigation
- Suitable for use in explosive handling and storage areas (EN1081) and in ESD environments (EN61340)

MasterTop 1324ESD

For laboratories, corridors, storage and service area use where a durable, electrostatic dissipative (ESD), chemically resistant joint free floor is required.



MasterTop 1324AS elastomeric polyurethane is an ideal choice for laboratories, stores and plant rooms that require a hygienic, anti-static, joint free, easy to clean, long lasting floor finish. It can be installed in two slip resistant finishes, smooth and textured to accommodate wet or dry environments.

System Features:

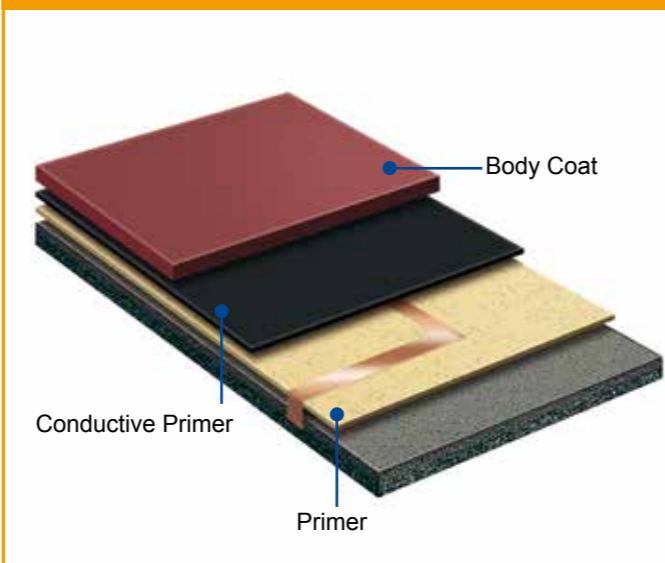
- Crack-bridging and Elastomeric for joint free floors
- High gloss finish

System Benefits:

- Monolithically bonded to the substrate
- Seamless and joint free application even over large areas or complex floor designs
- Systems available for use in CAT1 to CAT4 laboratories
- Easy to clean and disinfect and resistant to sterilisation by fumigation
- Suitable for use in explosive handling and storage areas (EN1081)

MasterTop 1324AS

For laboratories, corridors, storage and service area use where a durable, anti-static, chemically resistant joint free floor is required.





Wall & Floor Solutions

Seamless Resin Floor and Wall Solutions

MasterTop WS100PU polyurethane wall coating is an ideal choice for laboratories, stores, plant rooms, corridors, offices and reception areas that require a hygienic, easy to clean, long lasting aesthetic wall finish. A large range of colours allows for individual design or continuity with the floor finish.

System Features:

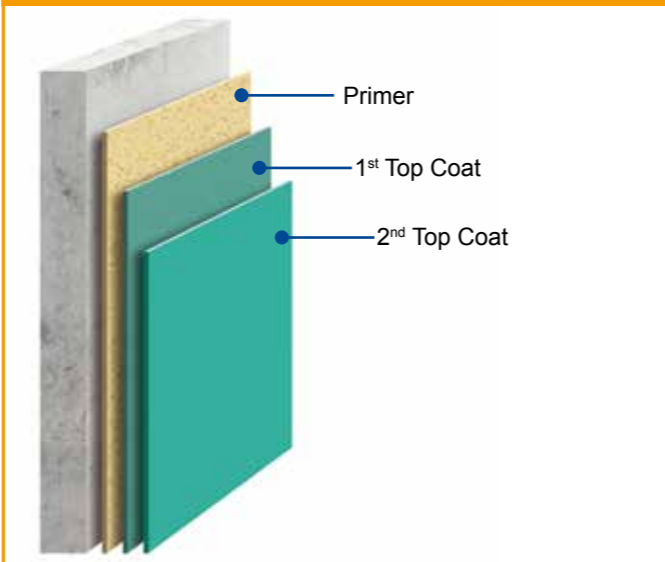
- UV light stable finishes

System Benefits:

- Seamless and joint free application even over large areas or complex floor designs
- Suitable for use in CAT1 and CAT2 laboratories
- Easy to clean and disinfect

MasterTop WS100PU

For laboratories, corridors, storage and service area walls where an aesthetic light duty, cleanable surface is required.



MasterTop WS200PU elastomeric polyurethane wall coating is an ideal choice for laboratories, stores, plant rooms and corridors that require a hygienic, joint free, easy to clean, durable, long lasting aesthetic wall finish. A large range of colours allows for individual design or continuity with the floor finish. Seamless, joint free covered transitions can be made between floors and walls.

System Features:

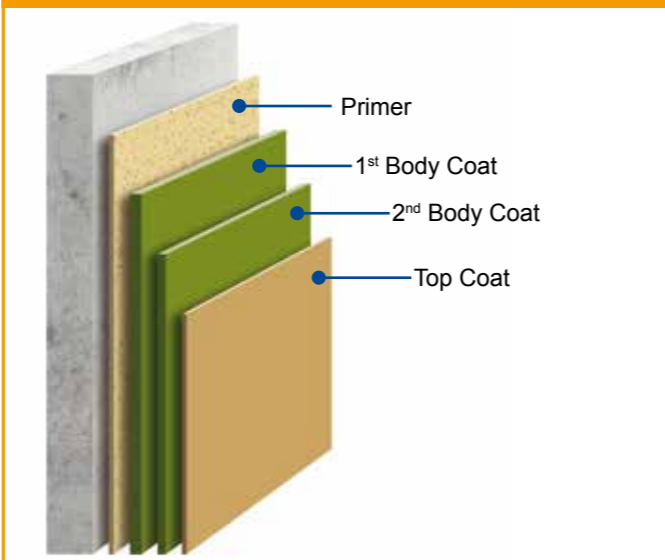
- Crack-bridging and Elastomeric for joint free walls
- Impact resistant
- UV light stable finishes

System Benefits:

- Seamless and joint free application even over large areas or complex wall designs
- Suitable for use in CAT1 and CAT2 laboratories
- Easy to clean and disinfect and resistant to sterilisation by fumigation
- Seamless joint free transitions between walls and floor

MasterTop WS200PU

For laboratories, corridors, storage and service area walls where an aesthetic medium duty, cleanable surface is required.



MasterTop WS300PU elastomeric reinforced polyurethane wall coating is an ideal choice for laboratories, stores, plant rooms and corridors that require a hygienic, joint free, easy to clean, durable, long lasting aesthetic wall finish with enhanced impact resistance. A large range of colours allows for individual design or continuity with the floor finish. Seamless, joint free covered transitions can be made between floors and walls.

System Features:

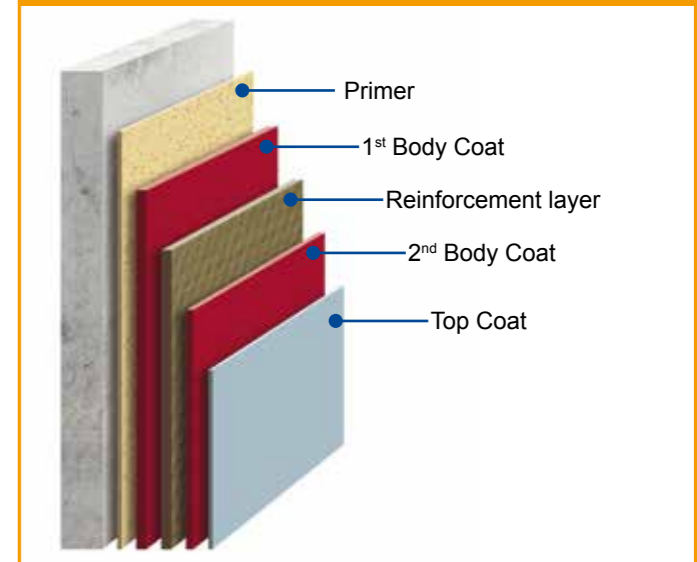
- Enhanced crack-bridging and elastomeric for joint free walls
- Enhanced Impact resistant
- UV light stable finishes

System Benefits:

- Seamless and joint free application even over large areas or complex wall designs
- Suitable for use in CAT1 to CAT4 laboratories
- Easy to clean and disinfect and resistant to sterilisation by fumigation
- Seamless joint free transitions between walls and floor

MasterTop WS300PU

For laboratories, corridors, storage and service area walls where an aesthetic, reinforced, medium duty, cleanable surface is required.





Life Cycle Analysis

To calculate realistically the cost and efficiency of a floor covering, the entire life cycle of the system needs to be considered. In this context, the cost of maintenance is taken into account in addition to investment costs, repairs and life expectancy. Only on this basis can different flooring systems be compared meaningfully.

Our MasterTop flooring systems have an extremely long lifetime of up to 50 years. While the consumption of resources during the initial process – i.e. when the floor is laid – is similar to that of other floor coverings, cumulated energy expenditure is considerably lower over the entire life cycle. When related to the entire life expectancy of the floor, this means lower overall costs per square meter per year.

Whole life cycle analysis and ecological balance sheets, emission checks and environmental declarations provide evidence of our products' sustainability, as they analyse and assess the life expectancy, consumption of resources etc. The evidence proves that in the long run, the

Initial laying –

consumption of resources comparable to that of other floor coverings

Maintenance

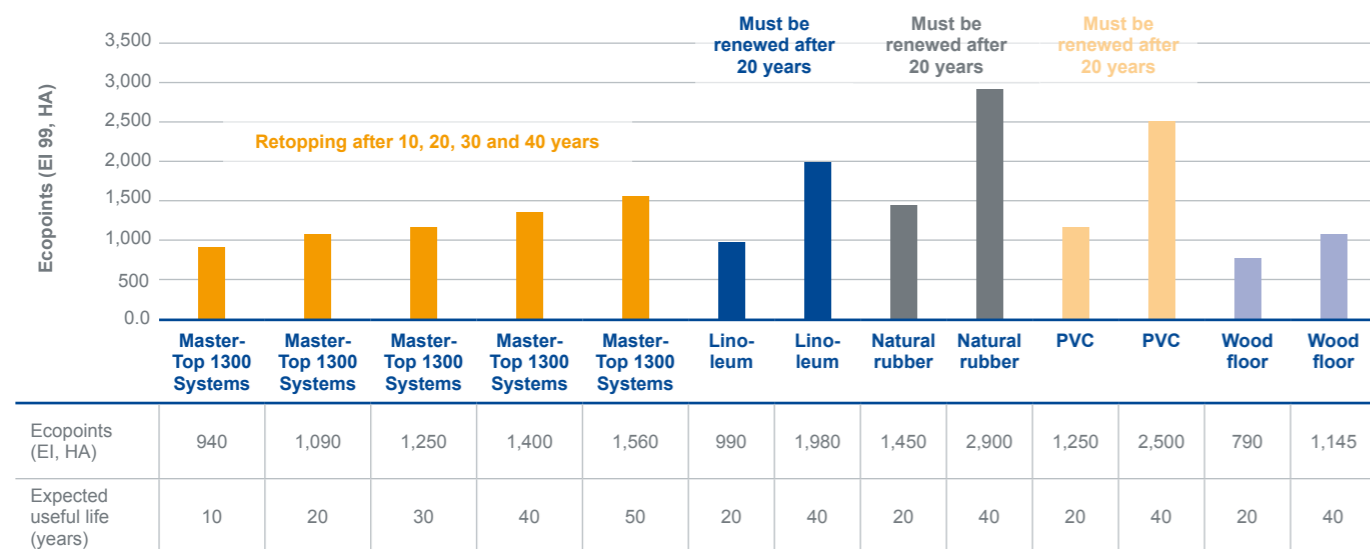
- + efficient cleaning thanks to seamless surfaces saves cleaning media, energy, work, time and costs
- + easy to maintain: spot repairs to damaged areas are possible
- + lower resource expenditure: re-topping (application of a new top layer) is possible

Stripping/Disposal

- + saves work expenditure and removal costs: new floor coverings can be laid onto MasterTop, i.e. stripping and disposal of the old floor are not required

extreme durability, low material consumption and efficient maintenance of MasterTop floors result in reduced environmental impact in comparison to other flooring systems. By choosing our MasterTop floors, you act in a long-term, economically and ecologically responsible manner.

Floor coverings in comparison: relative environmental impacts



Source: BMG Engineering, MasterTop Study, 2004 updated 2011.



Design Considerations

Independent testing and bespoke detailing

The successful design of world class laboratories comes down to the details. Environments must be functional, flexible and durable over their entire design life while providing a pleasant working environment.

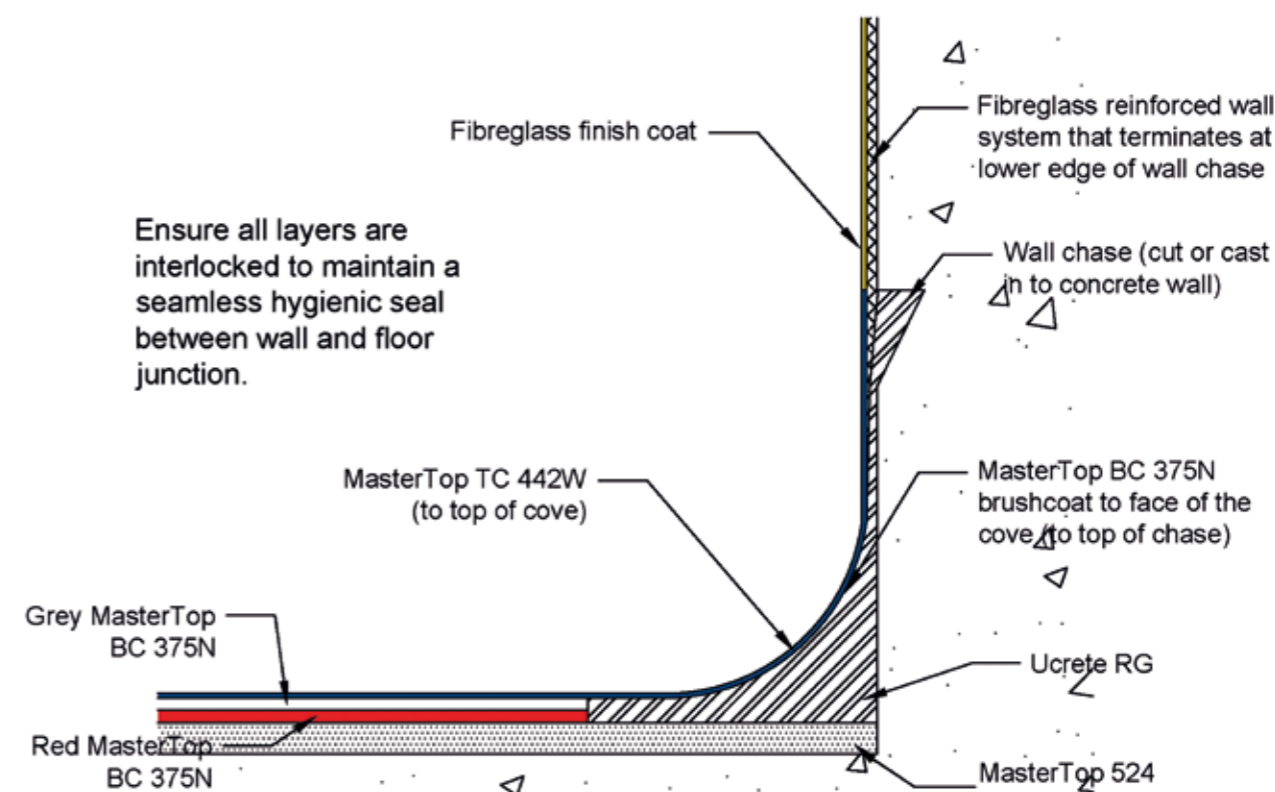
This long term success can be assured by considering each and every design consideration in turn.

Master Builders Solutions offer a comprehensive specification and technical service to assist with product selection and design details. A wide range of CAD details are available for our floor and wall finishes which eliminate the need for joints, seams and welds. Bespoke CAD drawing is also available to adapt to each project specific needs.

MasterTop resin floor and wall finishes have been widely used and specified for many years in laboratory environments. Master Builders Solutions have worked closely with designers and specifiers for the top international pharmaceutical and biosciences companies all over the world.

Clients not only demand a strong track record but also independent certification. This is why MasterTop systems are independently tested to demonstrate performance. Test reports are available for chemical resistance, crack-bridging, cleanability, emissions, sustainability and much more.

MasterTop Performance Flooring Standard Detail CAT 4 Laboratory seamless wall to floor finish



* This drawing has been prepared for general information purposes only. Not to scale.



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 SOLUTIONS

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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