

# The Fascination of Flooring

Everything a floor needs



 **BASF**

The Chemical Company

# Contents

- 3 Functional aesthetics
- 4 Your wish is our command
- 6 Comfort with every step
- 8 Protecting the environment
- 10 A clean solution
- 12 Life cycle cost
- 13 Proven performance
- 14 All our systems at a glance





A Head  
Full of  
Ideas...

When designing a room, the floor needs special attention. It is important not only to select the colour desired but also the best flooring system.

The system selected has a decisive impact on the service life of the floor, maintenance expenses incurred and the comfort and safety of users. This is why it really pays to make a cost/benefit analysis considering the service life of the floor and follow-up expenses such as maintenance. The objective should be to select an aesthetically pleasing floor topping offering the best possible combination of functionality, appearance and service life.

#### **... and both feet firmly on the floor**

Polyurethane resins have been used in many sectors of industry for more than 60 years. The convincing feature of polyurethane is the ability to meet individual requirements by adjusting properties such as hardness, elasticity and resistance to ageing, weathering, cracking and scratching. As a result, polyurethane floor toppings can be used in almost any application.

A wide variety of different polyurethane floor toppings and top coats that effectively and sustainably protect the existing concrete floor or screed are available. The thickness

and structure of these systems are determined by load bearing capacity and comfort requirements. Many different colours and patterns are available to meet aesthetic requirements. Polyurethane resins can be used for floor toppings that are highly resilient, attractive and pleasant underfoot.

Polyurethane floor toppings are applied in liquid form and once cured are inert and physiologically harmless. Irregularities in the substrate can be evened out easily and structures of any shape can be enclosed without additional work. The topping forms a seamless surface, fully bonded to the substrate, ensuring the best possible cleaning results and a high standard of hygiene.



2005, H. Helfenstein - Zach + Zünd Architekten BDA, BSA, SIA

## Seamless and Individual

The MASTERTOP 1300 range from BASF includes a wide variety of polyurethane resin floor topping systems. Properties such as elasticity or impact sound insulation can be tailored to customers' needs. The anti-slip properties of the selected floor can also be adjusted just as individually by selecting the top coat and the type of application or by including glass beads. The systems available are highly versatile and can be combined in a modular fashion to meet the precise needs of customers.

As regards colours and patterns, MASTERTOP 1300 systems leave no wish unfulfilled. We can produce materials in a wide variety of colours in accordance with your requirements and wishes. These can be combined individually during application. The topping is applied in liquid form and is completely seamless following curing. With the various primers available, the topping material bonds firmly to a wide variety of substrates. Existing geometric shapes and components can be included without any problems or additional cost. No joints or specially produced parts are needed.





### Properties

- seamless application
- full-surface bonding to substrate
- variable thickness, elasticity and anti-slip properties
- self-levelling and crack-bridging
- colours and colour combinations can be selected to meet customers' requirements
- easy to clean, low maintenance costs

### Advantages

- easy to apply, even with complex building geometry
- no risk of water seepage thanks to full-surface bonding and seamless application
- individual adaptation of topping properties to your needs
- easy integration of floor into your colour scheme



## Comfort with Every Step

Apart from attractive colours, comfort and safety are top priorities for floor users. Floors should be as soft as possible, with good shock-absorbing properties to reduce loads on users' joints and backs. Thanks to the outstanding elasticity of the polyurethane material used, our MASTERTOP 1300 floor solutions are ideal in this respect. The hardness of these systems can be adjusted as necessary to provide the best possible combination of comfort and wear resistance.

The surface texture of our systems can also be varied as required to improve anti-slip properties. The texture is infinitely variable from smooth (easy to clean) to rough (reliably preventing slipping even when wet). With the pore-free surface and seamless application of our systems, even rough surfaces can be kept hygienically clean.

The elasticity of the floor topping means that impact sound is effectively dampened and absorbed, reducing noise levels. Also, the seamless surface avoids unnecessary noise when crossed by trolleys. Our systems are extremely resilient and durable; even surfaces subject to arduous use still retain their attractive appearance.





### Properties

- highly elastic
- noise-absorbent
- good impact sound insulation
- high comfort
- good wear resistance
- good impact resistance
- good crack bridging properties

### Advantages

- high comfort (reducing impact on joints and preventing fatigue)
- reduced noise level even in extreme use
- no additional noise caused by trolleys pushed over joints
- long service life of floor topping
- very safe, anti-slip surfaces



## Protecting the Environment

As a producer of construction chemicals, BASF faces heightened environmental responsibilities. Our responsibility starts with the purchasing of raw materials from partners meeting the most stringent EU requirements, continuing through production, where we apply equally strict safety and quality testing, and ends with a product that features the highest possible degree of environmental compatibility. We also invest continually in research concerning new products, for example based on renewable resources, and in the improvement and optimization of existing products, not only as regards quality and performance but also in terms of environmental compatibility. Practically all our products are already free from solvents, making them easy and pleasant to use.

We are certified in accordance with ISO 9001:2000 and ISO 14001:2004.

The chemicals used for cleaning and maintaining floor toppings over their service lives may also have detrimental environmental impact. This is one of the decisive advantages of our MASTERTOP 1300 toppings. They are easy to clean because the surface is free from pores and does not absorb any dirt. Harsh chemical detergents are not normally needed. The inert structure of the floor topping also prevents bacterial growth, ensuring a hygienic, dust-free atmosphere in the room.

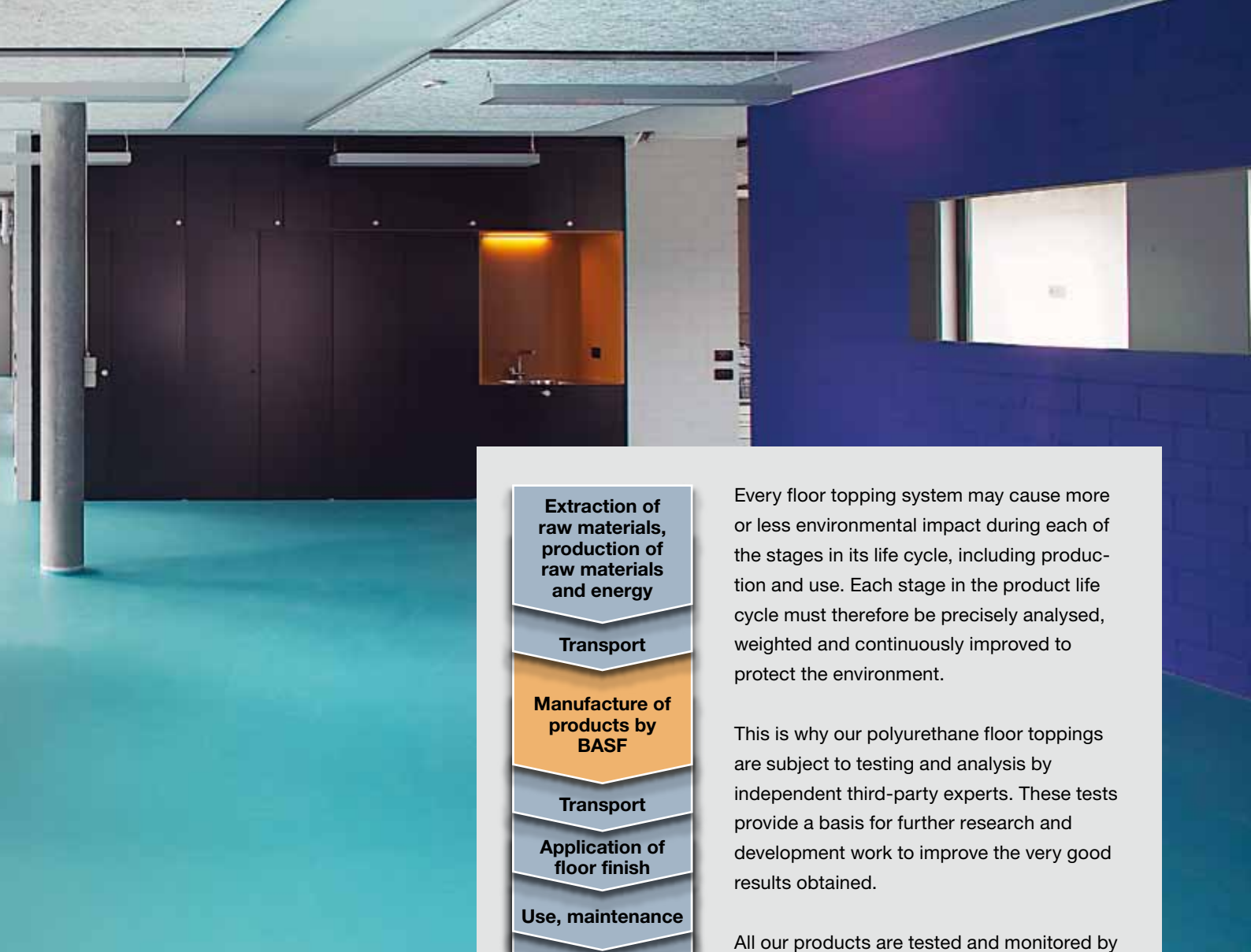
### Properties

- inert after curing
- fire-retardant
- easy to repair
- very good re-topping properties
- long service life

### Advantages

- no pollution of room atmosphere by volatiles emerging from topping
- easy and inexpensive to clean
- easy to replace by retopping
- no hygiene risk through bacterial growth



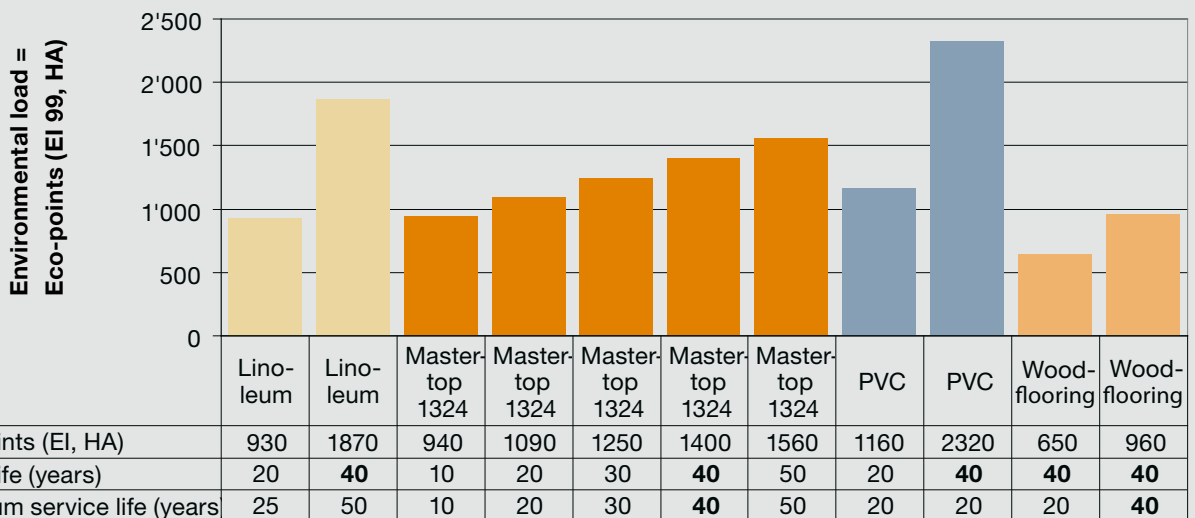


Every floor topping system may cause more or less environmental impact during each of the stages in its life cycle, including production and use. Each stage in the product life cycle must therefore be precisely analysed, weighted and continuously improved to protect the environment.

This is why our polyurethane floor toppings are subject to testing and analysis by independent third-party experts. These tests provide a basis for further research and development work to improve the very good results obtained.

All our products are tested and monitored by external inspectors to ensure compliance with our high safety standards and the stringent requirements for environmental compatibility and physiological acceptability.

Source: BMG Engineering



Comparison of **environmental load** (=eco-points) of various floor toppings with MASTERTOP 1324 PUR floor topping from BASF (evaluation method: Eco Indicator 99, EI 99).

Source: BMG Engineering

# A Clean Solution



80% of the cost associated with a floor topping is not caused by the installation of the floor itself but by cleaning and maintenance. This is definitely an area that requires special attention, because cleaning expenses can be significantly reduced by selecting the correct floor topping system. The less dirt a floor absorbs, the easier it is to clean. Easy cleaning means fast cleaning and lower cost.

MASTERTOP 1300 systems are very easy to clean. Their pore-free surfaces and full-surface bonding to the substrate mean that dirt cannot penetrate the surface and liquids cannot creep under the topping. Any surface dirt can simply be wiped off. Strong detergents or special machines are not normally needed.

We offer flexible solutions to a wide range of hygiene and cleanliness

requirements. In cooperation with leading manufacturers of detergents and cleaning equipment, we develop cleaning concepts with the ideal cost/benefit analysis.

It is our policy to maximize cleanliness while minimizing the use of chemicals. This policy is backed up by high-grade initial care, which prolongs the service life of your floor topping, and a range of regular care products.



### Properties

- pore-free surface
- seamless application
- full-surface bonding to substrate
- high chemical resistance
- no absorption of dirt or liquids
- chemically inert

### Advantages

- less time required and lower material consumption for cleaning and maintenance
- lower cleaning and maintenance expenses
- reduced detergent requirements help protect the environment
- individual care and cleaning systems
- hygienic room climate
- long service life



# Life Cycle Costs

The cost of a floor topping over its entire life cycle from application through care and maintenance to disposal is determined by a wide range of factors. Topping material and application expenses are not the most important element; in fact, the care and maintenance of a floor topping account for the lion's share of its life cycle cost.

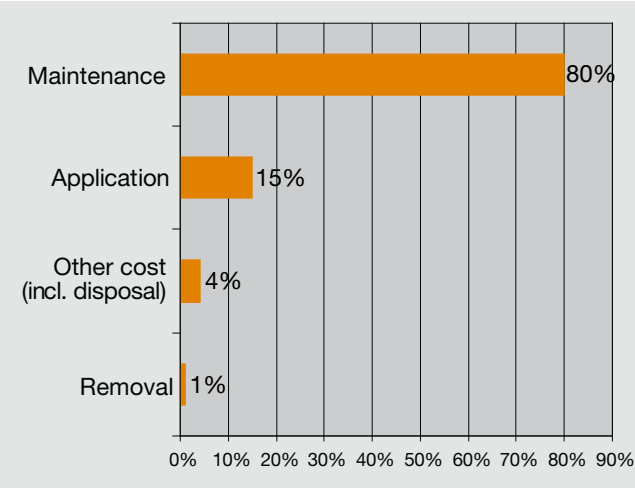
Our MASTERTOP 1300 polyurethane topping systems have a service life of 40 to 50 years. Re-topping at intervals of about 10 years maintains the quality and appearance of the topping over its entire service life. You therefore have a system that is not only fast and easy to clean but also offers outstanding cost-effectiveness.

## Properties

- good mechanical and chemical resistance
- easy re-topping
- easy-to-clean surfaces

## Advantages

- long service life
- less time required and lower material consumption for cleaning and maintenance
- low maintenance expenses
- high cost effectiveness
- good appearance even over a long service life



Source: BMG Engineering

# Proven Performance

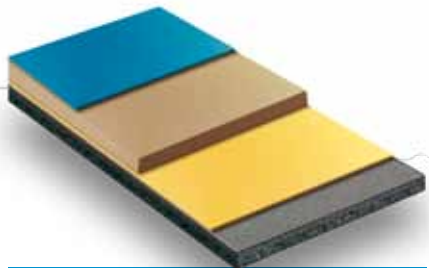
		MASTERTOP® 1324 / 1324 AB	MASTERTOP® 1325 / 1325 AB	MASTERTOP® 1325 REG	MASTERTOP® 1326	MASTERTOP® 1326 REG
Type of use in accordance with EN 685	Private buildings	23	23	23	23	23
	Public buildings	34	33	33	33	33
	Industrial buildings	43	42	41	42	42
Service life in pedestrian use		40 years	40 years	40 years	40 years	40 years
Anti-slip grade (*)	dry	R9/R10/R11	R9/R10	R9/R10	R9/R10	R9/R10
Ease of cleaning		easy	easy	easy	easy	easy
System thickness		2 – 5 mm	2 – 5 mm	8 – 10 mm	2 – 5 mm	8 – 10 mm
Impact toughness		good	good	good	good	good
Impact sound reduction		2 - 5 dB	2 - 5 dB	20 dB	2 - 5 dB	20 dB
Fire classification in accordance with EN 13501-1		B <sub>fl</sub> -s1	B <sub>fl</sub> -s1	D <sub>fl</sub> -s2	B <sub>fl</sub> -s1	D <sub>fl</sub> -s2
Resistance to stubbed and burning cigarettes in accordance with EN 1399		very good	very good	very good	very good	very good
Chemical resistance in accordance with EN 423		very good	good	good	good	good
Resistance to chair castors in accordance with EN 425		good	good	good	good	good
Colours (other colours on request)		18 standard	18 standard	18 standard	40 standard	40 standard
Colour stability (in indoor use)		yes	yes	yes	yes	yes
Low emission according to AgBB regulation		yes	yes	yes	yes	yes
Shore hardness		65 D	80 A	80 A	85 A	85 A
Thermal insulation		0.027 m <sup>2</sup> · K/W	0.027 m <sup>2</sup> · K/W	0.052 m <sup>2</sup> · K/W	0.027 m <sup>2</sup> · K/W	0.052 m <sup>2</sup> · K/W
Compatible with underfloor heating systems (**)		yes	yes	yes	yes	yes
Antistatic version available		MASTERTOP® 1328 AS	—	—	—	—
Antibacterial version		with restriction	yes	yes	no	no

(\*) tested to DIN, SRT and with inclined plane




(\*\*) according to heating system manufacturer's specification

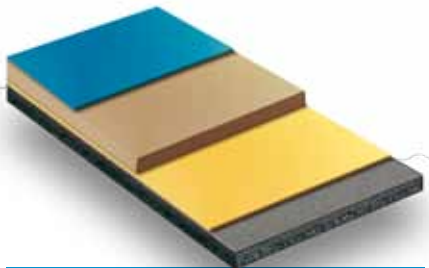
# All our Systems at a Glance

The MASTERTOP 1300 series offer a range of self levelling systems with a smooth surface finish. The three systems MASTERTOP 1324, MASTERTOP 1325 and MASTERTOP 1326 have different hardness characteristics (from semi rigid to soft) designed to meet different customer needs and requirements. All three systems are easy and fast to apply even in rooms with complex geometry.






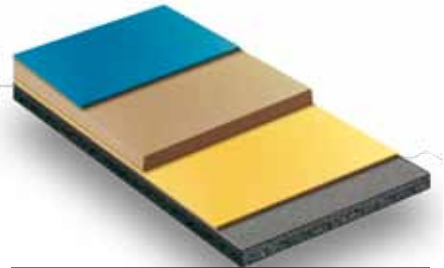
## MASTERTOP 1324 / 1324 AB

<b>Primer</b> 	According to type and condition of substrate
<b>MASTERTOP BC 375 N</b> 	A pigmented, 2 component polyurethane body coat, semi rigid 1.5 – 2.0 mm
<b>MASTERTOP TC 441 P/C*</b> 	A pigmented, 2 component, UV stable polyurethane top coat






## MASTERTOP 1325 / 1325 AB

<b>Primer</b> 	According to type and condition of substrate
<b>MASTERTOP BC 325 N</b> 	A pigmented, 2 component polyurethane body coat, soft 1.5 – 2.0 mm
<b>MASTERTOP TC 407 W*</b> 	A water-based, 2 component, UV stable polyurethane top coat, <b>pigmented</b>



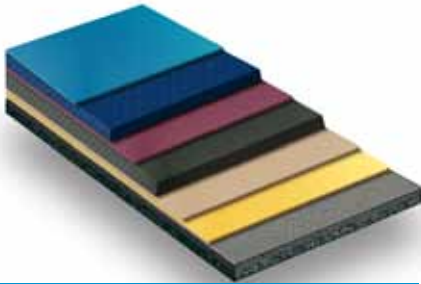
## MASTERTOP 1326








<b>Primer</b> 	According to type and condition of substrate
<b>MASTERTOP BC 361 N</b> 	A pigmented, 2 component polyurethane body coat, soft, high UV resistance 1.5 – 2.0 mm
<b>MASTERTOP TC 407 W*</b> 	A water-based, 2 component, UV stable polyurethane top coat, <b>clear</b>

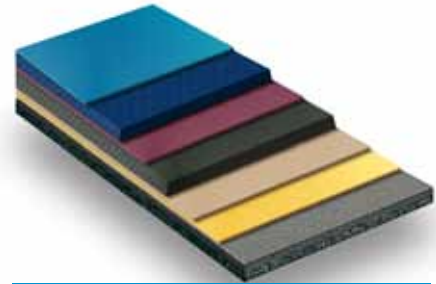
\* alternative top coats can be used.










MASTERTOP 1325 REG and MASTERTOP 1326 REG are the first resin floors which combine technical requirements with acoustic performance. With an acoustic underlayment integrated in the systems, they offer a very good sound- and shock-absorption to provide comfort with every step.



MASTERTOP 1325 REG	
<b>Primer</b> 	According to type and condition of substrate
<b>MASTERTOP AD 170</b> 	A pigmented, 2 component polyurethane adhesive
<b>MASTERTOP MAT 4 / MAT 6</b> 	A prefabricated rubber-granulate mat for acoustic underlayment 4 mm or 6 mm
<b>MASTERTOP PS 231</b> 	A pigmented, 2 component surface pore sealer
<b>MASTERTOP BC 325 N</b> 	Scratch coat 0.8 - 1.0 mm
<b>MASTERTOP BC 325 N</b> 	A pigmented, 2 component polyurethane body coat, soft 1.5 – 2.0 mm
<b>MASTERTOP TC 407 W*</b> 	A water-based, 2 component, UV stable polyurethane top coat, <b>pigmented</b>



MASTERTOP 1326 REG	
<b>Primer</b> 	According to type and condition of substrate
<b>MASTERTOP AD 170</b> 	A pigmented, 2 component polyurethane adhesive
<b>MASTERTOP MAT 4 / MAT 6</b> 	A prefabricated rubber-granulate mat for acoustic underlayment 4 mm or 6 mm
<b>MASTERTOP PS 231</b> 	A pigmented, 2 component surface pore sealer
<b>MASTERTOP BC 325 N / BC 361 N</b> 	Scratch coat 0.8 - 1.0 mm
<b>MASTERTOP BC 361 N</b> 	A pigmented, 2 component polyurethane body coat, soft, high UV resistance 1.5 – 2.0 mm
<b>MASTERTOP TC 407 W*</b> 	A water-based, 2 component, UV stable polyurethane top coat, <b>clear</b>

\* alternative top coats can be used.

# Intelligent Solutions from BASF Construction Chemicals

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Our market leading brands offer the widest range of proven technologies to help you build a better world.

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- Masterflex®** – Joint Sealants
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- Concresive®** – Resin Based Mortars, Adhesives and Injection Systems
- Conica®** – Sports Flooring
- Conideck®** – Hand and Spray Applied Waterproofing Systems
- Coniroof®** – PU Based Roofing Systems
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