Water Vapour Diffusion
VERSATILITY

Water Vapour Permeable Floor Coatings

The high quality of Remmers floor coating systems are certainly the right decision – and not just because they meet the strict VOC directive.

Extreme conditions require extremely good performance characteristics. With the water vapour permeable floor coating systems (Sd-Value < 10 m) from Remmers, the base is always right even on critical substrates. They show their real strength even in weak areas where rising damp can be expected because the surfaces have contact with the ground or there is no waterproofing.

Substrates with residual moisture (e.g. new construction) do not present a problem for the water vapour permeable floor coating systems from Remmers – the coating won’t debond and the program time can be kept! Because they are capable of diffusing water vapour, they make sure that moisture can escape and blisters do not form. That saves a lot of trouble as well as time consuming repair.

The innovative systems can be quickly and easily laid indoors and outdoors on practically any substrate. And since two layers can be applied in one day, construction time is also reduced.

They also have another big advantage: their high mechanical strength, and thanks to decorative designs, these water vapour permeable floor coating systems look great as well.

[1] Rising damp can lead to the formation of blisters sooner or later. When this happens, the floor must be repaired which is time consuming and expensive.

[2] If a water vapour permeable floor coating system from Remmers is used (Sd-value < 10 m), rising damp can escape from below and the coating can withstand heavy mechanical loads from above, if desired.
Which substrates are best for coating?

A sound analysis of the existing substrate is the basis for an ideally coordinated floor coating system. Water vapour permeable coatings can be laid on practically any substrate. You’ll find a complete overview on page 22 and some examples here on the right.

Which type of damage can be repaired without problems?

The type of the substrate is one aspect. Its’ state often another. We pay attention to both aspects so you can find the right system quickly. The different types of damage that can be easily repaired with water vapour permeable coatings from Remmers are shown in the illustrations on the right.

How is the substrate best prepared?

Every floor is only as good as its preparation. So everything has to be removed or repaired – loose particles, surface laitance, grease, oil, paint, missing or broken out areas – if your new floor coating is to adhere perfectly and have a long service life. Depending on the type of substrate, total surface area and type of damage, there are various options for preparing the substrate. Your Remmers representative will be glad to help you!
Range of Use
RISING DAMP

Economical and Ecological Solutions

When you encounter rising damp, e.g. surfaces that have contact with the ground, water vapour permeable floor coatings from Remmers are the economical, ecological and reliable solution. We offer systems that fit any ambient conditions and requirement criteria: from anti-slip, to conductive, suitable for heavy mechanical loads all the way to individually designed, decorative floors.

New construction and surfaces
(Reduces construction time since they can be laid on new concrete)

Buildings and surfaces with ground contact
(for rising damp)

Production facilities and warehouses

Underground garages and car parks

Decorative surfaces for exhibition or sales rooms and stores
Along with our own high commitment to quality, our water vapour permeable floor coating systems have been tested in accordance with the demanding criteria of the OS 8 class testing programme (guideline for the protection and restoration of concrete building elements issued by DAfStb - the German committee on reinforced concrete). It is important to ensure that the correct floor system is selected that is suitable for the individual conditions such as the substrate and expected load - from light to heavy foot traffic, dynamic loads, all the way to heavier point loads. Remmers is known for floors that are reliable when it comes to just in time operations and especially economical systems. Contact our technical sales representatives for an individual system recommendation.
Remmers water vapour permeable floor coatings can withstand the following loads as illustrated:

- **Light loads**, e.g. foot traffic
- **Moderate loads**, e.g. through hand pallet trucks
- **Increased loads**, e.g. dynamic loads from fork-lift traffic
- **Heavy loads**, e.g. from heavy point loads
INDIVIDUAL FREEDOM OF DESIGN

Thoughts are free – and creative possibilities for designing your floor are also an option! No matter how you envision your new floor, it can be designed to your individual wishes and ideas. Any design can be chosen and the possibilities are practically without limit since there are 1,688 RAL shades and 1,950 NCS shades that can be combined with the Remmers Decor-Collection. The choice is extensive so use your imagination.

You can add details with simple coloured sealants, show off your artistic ability with rich colour combinations or just use flakes. When the floor is broadcast with contrasting colour flakes, you immediately have two advantages: any unevenness on the floor is no longer visible and you don’t see dirt as easily. You can make it any way you want. There’s no doubt about their practical advantages compared to concrete or cementitious finishes. Our systems can withstand loads, have a long service life and can by laid without joints, making them easy to maintain and hygienic. They are particularly suitable for creating a unique atmosphere.

Since each floor is unique it will make an impression wherever it is. They can be laid indoors and outdoors on practically any substrate or existing surfaces, are UV resistant, matt or shiny and slip-resistant (can be adjusted up to R 13).
Surfaces in production facilities

Show rooms and exhibition surfaces

Surfaces in warehouses and logistic areas

Stores

Colour concepts for clear demarcation of areas

Entrance areas

Balconies and terraces

Roadway markings for car parks and underground parking garages

RAL colour cards are available from: RAL Deutsches Institut für Gütesicherung und Kennzeichnung e.V. (www.RAL.de)

1,688 RAL shades

1,950 NCS shades
VARIOUS EXAMPLES OF INSTALLATION

Floor Coating Systems for Every Case

CASE STUDY 1
Underground parking garage in Singapore

Fast laying despite adverse conditions
A difficult situation: stress predominates at the large-scale building site. With 30°C in the shade and >90% humidity, it’s not easy to keep a cool head in this hot environment. There’s no time for delays! A floor coating is needed that can also be laid on new concrete.

Requirement: The expected rising damp should not lead to blisters that need expensive repair later. The floor coating must also be able to withstand the heavy loads of busy traffic in the future without any problem.

The final result: The strength of the system is obvious. All of the requirements could be fulfilled and also installed in a short period of time. To this very day, the water vapour permeable floor coating system still withstands the daily traffic loads.
CASE STUDY 2
A printing company’s warehouse with a ground bearing slab

Optimal flow – even at low temperatures
The construction phase is in full flow, the windows have not yet been installed and in the case of the floor coating, the warehouse slab will have a lot of residual moisture, and worst of all, winter is on its way. Time is running out and something needs to be done quickly! To reduce construction time and save costs, a water vapour permeable flow coating is needed.

Requirement: To make sure that the works don’t literally freeze up, the coating must have optimal flow properties – at a substrate and ambient temperature of only 10 °C.

The final result: Thanks to Remmers, not only the floor coating turned out well at the low temperatures, the date for completion was met and even high heating costs for installation were reduced.

CASE STUDY 3
Car Park in Dublin, Ireland

Reduced program time with an economic system
A very large project: The 100 000 m² deck of a car park is supposed to be coated with as little material as possible and in the shortest time. Economical considerations and time constraints demand an alternative to the classic system blinded with quartz sand.

Requirement: A slip-resistant (R12) coating that can be comfortably applied with a roller. There’s just no time for broadcasting of quartz sand and sweeping up afterwards!

The final result: Remmers was able to deliver the best system solution. Not only that, three whole lorry loads of quartz sand were saved! With such a reduction of work, it was no wonder that the schedule and budget could be met.
WALL COATINGS

Perfect Coatings with Resistant Surfaces

Epoxy BS 2000 and 3000 are an unbeatable combination when it comes to tested quality. Epoxy BS 2000 provides excellent adhesion to different substrates, from concrete, cement screeds and renders to galvanised sheet metal as well as tiles. To make sure that everything becomes clean again later after loading, Epoxy BS 3000 provides the ideal surface quality on floors, walls and even ceilings. Just the right amount of hot water and high pressure and everything becomes spotlessly clean again without damaging the coating. These properties have also been confirmed in comprehensive, independent testing as well as the water vapour permeability and mechanical loading capacity of the coating.
COMPLIANCE WITH THE VOC DIRECTIVE
Extremely Important – And Not Just for Young Children

A floor should be able to withstand not only rising damp and high loads but should also be safe for the air in the room. The emission of volatile organic compounds (VOC) can contaminate the air in the room and harm health. As a producer, Remmers offers a complete, VOC-tested range of products that meet the strict AgBB* criteria. That is also especially important in all indoor spaces such as offices, warehouses, production facilities, living spaces, day care centres for children and schools. The fact that compliance with the VOC Directive has been tested for our products certainly makes selecting our products a very sensible decision, also in the long term since they save you expensive follow-up costs for time consuming repair and they enhance the quality of your life.

Thanks to VOC-tested products, Remmers finished the floor here as well to make sure the air at the super market is fresh and uncontaminated. Certainly a breath of relief for everyone: even if the weather is bad outside, the climate indoors is good.

* Complies with the strict criteria of AgBB (German Committee for the Evaluation of Building Products in Regard to Health)

If the air in the room is not contaminated, your head is free for important things.
Also ideal for areas where children spend time.
HIGH QUALITY SERVICES

A Quality That You Can Rely On

We know something, not only about our trade. We also see ourselves as a versatile partner of the tile laying trade, architects and planners, commercial customers and private consumers as well as contractors. Remmers offers an extensive service package for all areas. After all, we’re only satisfied if you’re satisfied.

Proximity to customers

Our staff members will also be glad to consult with you at the construction site and prepare an individual recommendations. This way, professional advice, trouble-free services and uncomplicated delivery can be guaranteed.
We have a school for quality

Users of our products are regularly trained at the Bernhard-Remmers-Academy.

Experience is what makes a master: Theoretical knowledge gained in class is put directly into practice using sample surfaces.

Tested competence: Successful participation in the WHG product training programme is honoured by a TÜV certificate.

Investigated: The Reason for Our Successful Development

Real groundwork: A sound, project specific analysis of the floor is the basis for an individual system recommendation.

Through contact with the people in industry, our product systems are continuously developed.

Development competence to be proud of: Over 100 laboratory staff members stand for know-how and innovative products.

No question is left unanswered

Our field service staff members will be glad to give individual advice.

On our website at www.remmers.de under Worldwide Sites you’ll find links to our subsidiaries and representatives the world over with plenty of useful information in the corresponding languages.
A GOOD REASON TO CHOOSE REMMERS

Resistance to chemicals, extreme resistance to heat or freezing temperatures, slip-resistant or high strength – the requirements on a floor coating can vary greatly. And who knows this better than us? That’s why we would be glad to help you select the right floor coating. We offer tailor-made systems that are just right and meet your individual needs. To be able to do that, we need to do the groundwork first: a detailed and sound analysis of the state of the floor on site. Based on this analysis, we will draw up a check list which records all of the important characteristic data such as the condition of the substrate, possible existing damage and future requirement criteria for the floor coating as well as other decisive factors in the working environment such as wearing suitable foot wear. In our laboratory we will examine the floor samples using the most modern analysis techniques. Based on the results and taking the requirements on the system into account, Remmers technical sales managers will recommend the best system for you and the ideal approach for achieving the right floor coating.
Sound analysis of the state of the floor
All of the important benchmark data such as the state of the substrate and existing damage are recorded.

Professional advice on site
With the aid of a comprehensive check list, nothing is forgotten.

Determination of the system requirements
The loading profile to be expected, dates and budget are discussed in detail in advance.

Individual recommendations
The results from the requirement profile and the analysis of the state of the floor are evaluated in our laboratory so that the best floor coating system is recommended.

Our additional Service:
We’d be glad to help you – in cooperation with qualified floor laying companies – throughout the entire program. From analysis to planning all the way to finishing your floor coating. You can see what your individual floor coating system could look like on the next pages.

Advantages at a Glance:
- Fast, reliable and easy to lay – even in cases of rising damp
- For universal use on practically any substrate
- Tested high mechanical loading capacity in accordance with the class OS 8 testing programme
- Reduces construction time since they can be laid on concrete that still has residual moisture
- The floor coating system can be adjusted to individual conditions and the loading profile to be expected
- Versatile possibilities for designs since colours and designs can be freely selected
- Loadable, a long service life, easy to maintain and hygienic
- UV-resistant surface with a choice of either matt or gloss
- Physiologically safe after curing
- Conforms with the strict VOC Directive
- Individual analysis of the state of the floor
- Very good flow properties even at low temperatures
- Individual recommendations that takes your personal needs into consideration
- Can be formulated conductive or slip-resistant
- Certified quality and Test Certificates
REMERS SYSTEM GUIDE
The Ideal Floor Coating for Any Case

We're only satisfied if you are. That's why we take individual wishes and needs into consideration for every water vapour permeable floor coating system. All in all there are three criteria that are decisive for the selection of a system. First of all there is the expected load and then there is the existing substrate. In the third step the very special requirements for your floor are determined: from suitable for heavy mechanical loads to decorative and slip-resistant all the way to conductive.

**And here's how it works:** you'll reach your goal quickly with the system configurator. If, e.g. you want to cover old tiles that should be able to withstand a heavier load in the future and be sealed with a slip-resistant (R12) sealant, we recommend System No. 6.

1. **What kind of loads will your new floor have to withstand?**
   - **Light loads** e.g. foot traffic
   - **Moderate loads** e.g. manual pallet trucks
   - **Increased loads** e.g. dynamic loads through forklift traffic
   - **Heavy loads** e.g. heavy point loads

2. **Which type of substrate exists?**
   - Concrete, steel ball blasted
   - Concrete, milled and steel ball blasted
   - Cement screed, sanded
   - Cement screed, steel ball blasted
   - Anhydrite screed
   - Magnesite screed
   - Old epoxy coating
   - Old tiles (only indoors / no permanently wet area)
   - Substrates with residual moisture
   - Fresh concrete, steel ball blasted
   - Levelling compound
   - Poured asphalt (only indoors without windows)
   - Old PU coating
   - Wet substrates (water film/permanently wet area)

3. **Which special requirement is placed on your floor?**

   - **Sealing System**
     - Coloured seal coat
     - Mechanically loadable flow coating approx. 1 mm

   - **Systems for Heavy Loads**
     - [1] Application of the primer (Epoxy BS 2000) using an epoxy roller
     - [2] Application of the seal coat (Epoxy BS 3000 M / SG) using an epoxy roller

   To restore old PU coatings, see our system brochures for industrial use.
   If you need floor coating systems for permanently wet areas with slip-resistant floor coating systems or ask your competent Remmers contact person.

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### Why Mechanical Loads

- **Flow coating for heavy mechanical loads approx. 2 mm**
- **Decorative coating < 0.5 mm**
- **Decorative, slip-resistant coating system (R11) > 1 mm**
- **Slip-resistant, coloured sealant (R12)**
- **Slip-resistant, blinded cover (R13 V04)**

### Decorative Systems

1. Application of the primer (Epoxy BS 3000) using an epoxy roller
2. Application of the coating (Epoxy BS 3000 SG) with Selectmix SBL using a toothed trowel followed by de-airing with a spiked roller
3. Application of the seal coat (Epoxy BS 3000 M/SG) using an epoxy roller
4. Application of a seal coat (Epoxy BS 3000 AS) using an epoxy roller
5. Application of a seal coat, e.g. ArtiTop M Plus.

### Slip-resistant Systems

1. Application of the primer (Epoxy BS 2000) using an epoxy roller
2. Application of the flow coating (Epoxy BS 3000 SG) with Selectmix SBL using a toothed trowel followed by de-airing with a spiked roller
3. Application of the rolled coating (Epoxy BS 3000) using an epoxy roller
4. Contrast blinding with AntiFlakes.
5. Application of a seal coat, e.g. ArtiTop M Plus.

### Conductive System

1. Application of the conducting layer (Epoxy BS 3000) using an epoxy roller
2. Installation of copper tape for earthing
3. Application of the conductive coating (Epoxy BS 3000 A5) using an epoxy roller
4. Application of the primer (Epoxy BS 2000) using an epoxy roller

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### Just ask us!

Your financial budget and program time are also important for making decisions. Our tip: Let Remmers competent advisors give you detailed advice.

We reserve the right to make changes in the systems from time to time in the interests of continued development.

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- **1** Blasting marks visible
- **2** Blasting marks may be visible
- **3** Leveling layer required – e.g. with Remmers Optiplan
- **4** Your will find suitable floor coatings systems in the system brochure for industrial floors.