

PLASTIFLOOR® 800 PD

Waterproofing Park Deck Protection on concrete substrate

Plastifloor® 800 PUMMA resins are able to offer a wide range of high performance park decking (PD) solutions.

Based on the fast curing and incredibly durable methyl methacrylate (MMA), and urethane modified resin technology, these resin systems are ideal for traffic areas and help overcome the installation challenges resulting from long periods of bad weather.

The Plastifloor® 800 PUMMA Elastic crack-bridging properties under a wide range of temperatures, resistance to chlorides and aggressive chemicals such as fuel, oils and hydraulic fluids, speed of installation and outstanding durability are some of the most important factors that customers expect for car park deck coatings, so our systems have been developed to offer highest performance in all of these areas.

THE PROBLEM



The existing Polyurethan coating of old park decks is damaged after time.

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THE SOLUTION

The Plastifloor® 800 PD Waterproofing System will provide an effective and long lasting, drivable waterproof layer to the leaking concrete top deck.

TECHNICAL PROFILE

| | | |
|----------------------------------|--------------------------|---|
| Fire resistance classification: | E _{fl} | according EN ISO 11925-2 |
| Slip resistance classification : | R 11 to R 13 | according DIN EN 16165:2023-02, attachment B. |
| Moisture transmission : | 20 g/m ² /24h | according EN ISO 62:2008 |
| Elongation : | 200% | according DIN ISO 527 |
| VOC content: | 7,65 g/l | according ASTM D2369-10, Method E |
| UV stabile: | yes | |
| Curing time: | 1 h @ 20°C | walkable |
| Colors: | | according RAL color sheet |

PROTEKTION SOLUTIONS FOR CONCRETE PARK DECK

System structure:

1. Plastifloor® 112/118 PD Primer + broadcasted (QS 0.3–0.8 mm)
2. Plastifloor® 800 PD waterproofing membrane layer
3. Plastifloor® 800 PD drivable base coat
4. Plastifloor® 528 PD colored sealer

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FACTS

- New liquid applied membrane Plastifloor® 800 BD Waterproofing
- Urethane modified resin, based on methyl methacrylate
- Installation at temperatures down to -20°C (only with accelerator B 101)
- High flexibility at very low-temperatures
- Elastic crack-bridging properties under a wide range of temperatures
- Fast application / fast curing
- Short down time

INSTALLATION



After carefully removing the damaged waterproofing layer



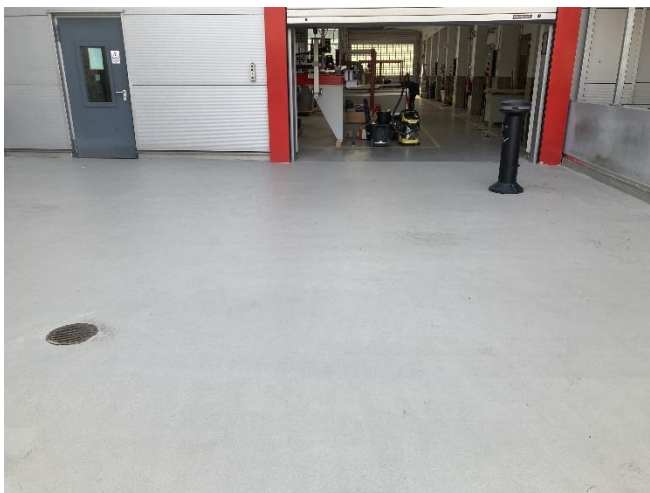
The concrete floor need to be shotblasted and vacuumed.

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After priming the substrate with Plastifloor® 112 (dry substrate) or 118 (slightly wet substrate) the coating system will be applied in 1 or 2 layers. We recommend the 2 layer system when the substrate shows cracks and in harsh weather conditions like in northern Europe or North America.



The coating will be sealed with Plastifloor® 528 coloured sealer according RAL colour chart.

Slip resistant grades from R 11 – R 13 are approved by MPI.

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Plastifloor® 800 PUMMA is an ADVANCED RESIN SYSTEM

- Light-weight system
- Customized solution
- For concrete decks in new construction and for refurbishment
- Variety of Primers to suit each substrate
- VOC compliant and contains no solvent
- Setting and Curing times may be adjusted to suit ambient and site conditions
- Good bonding and high shear strength to asphalt under different application temperatures
- Global technical support by the manufacturer



The result is convincing.

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Coving

Coving can form an integral part of the flooring system. It creates a sealed finish between the floor and wall joint. Use the Plastifloor® 540/h cove paste data sheet for further information. We recommend to use also the Plastifloor cove profile system: [Plasticloor® Cove system \(plastishop.de\)](#)

Substrate Requirements

Concrete or screed substrate should be a minimum of 25 N/mm², free from laitance, dust and other contamination. Substrate should be dry to 90% RH as per ASTM F2170 (AS1884:2012). Slab on ground concrete must have an effective damp proof membrane in place.

Installation Service

The installation should be carried out by a qualified Plastifloor® contractor with a documented quality assurance scheme. For details of our recommended contractors, contact your office. Detailed application instructions are available upon request.

Environmental Considerations

The finished system is assessed as non-hazardous to health and the environment. The long service life and seamless surface reduce the need for repairs and maintenance. Environmental and health considerations are controlled during manufacture of the products by PLASTI CHEMIE staff.

Aftercare, Cleaning & Maintenance

Clean regularly using a single or double headed rotary scrubber drier in conjunction with a mildly alkaline detergent. Please refer to Plasti-Chemie's Cleaning & Maintenance Guide for further information.

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Warranty

Plasti Chemie's products are guaranteed against defective materials and manufacture and are sold subject to our standard 'Warranty, Terms and Conditions of Sale', copies of which can be obtained on request. Warranty does not cover suitability, fit for purpose or any consequential or related damages. Please review warranty in detail before installing the products and check our terms of sales on our website: www.plasti-chemie.de

Safety Precautions

Wear appropriate Personal Protective Equipment (PPE) including masks, gloves, eye protection and protective clothing during mixing and application. Ensure the working area is well ventilated and follow the appropriate Health and Safety guidelines applicable to the location where the application is undertaken. Please read the Plastifloor installation guide available on our website: www.plastifloor.net

Important

This specification assumes a concrete compressive strength greater than 25 N/mm², application and curing temperatures of 0–35°C and concrete moisture content less than 90% RH. If moisture content is above 90% RH, please contact Plasti Chemie in Germany.

This specification must be read in conjunction with relevant product technical data sheets and the application of all materials is to be strictly in accordance with manufacturer's instructions. The recommended substrate temperature for application is 0-30°C. Should the application temperature exceed 30°C or fall below 0°C, please contact Plasti Chemie's Technical Department as the application method may change.

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Preparatory work and application in accordance with manufacturer's instructions.

Moisture Testing

Moisture Testing (in accordance with AS4654.1-2012) Hygrometer readings must be taken and recorded so that the correct system can be selected. Concrete curing compounds and overlaid concrete will extend the time taken for the hygrometer to reach equilibrium. Sub-floor measurement readings of up to 90% RH can be accommodated with the system.

NOTE: please ensure enough time is provided to allow the test cell to reach equilibration (this ensures that lower level moisture is accounted for).

Constructions with thickness greater than 200 mm can take considerably longer than one week before moisture equilibrium is established. To prevent edge effects with these very thick constructions, the area of 1m² surrounding the instrument should be covered with an impervious sheet material during the test. To minimize the time required for the instrument to be in a position on the floor, the following technique can be applied.

Cover the positions to be measured with impervious mats (e.g. polyethylene sheet, rubber mats) not less than 1m x 1m, taped to the floor at their edges. Leave in position for at least 3 days in the case of screeds and 7 days in the case of thick constructions. After removing the mat, immediately seal the instrument to the center of the covered area. Experience has shown moisture equilibrium is usually attained within 2 h to 4 h of placing the instrument but should be left overnight for confirmation.

Alternatively, Plasti Chemie accept the use of the GE Protimeter Sub-Surface kit, which utilizes humidity sleeves for measuring the equilibrium relative humidity (ERH) readings of solid floors and walls. They are inserted into pre-drilled holes to create an air pocket for measuring with a Protimeter Hygrostick.

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System Design

Plastifloor® 800 PUMMA hybrid coating for parking decks:



| 2nd sealer | 1st sealer | Coating | Membrane | Primer |
|-----------------------|-----------------------|----------------------------|----------------------------|-----------------------|
| Plastifloor® 528 | Plastifloor® 528 | Plastifloor® 800 | Plastifloor® 800 | Plastifloor® 112 |
| 0.4 kg/m ² | 0.4 kg/m ² | 1.2 kg/m ² | 1.2 kg/m ² | 0.5 kg/m ² |
| colored | colored | mix 1:~0,6 with s/l filler | mix 1:~0,5 with s/l filler | |
| acc. to RAL | acc. to RAL | fully broadcast | slightly broadcast | slightly broadcast |
| | | with quartz sand | with quartz sand | with quartz sand |
| | | 0.6 – 1.2 mm | 0.6 – 1.2 mm | 0.6 – 1.2 mm |

(read product data sheets with further details before installation!)

Manufacturer

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Storage

Storage at $\leq 25^{\circ}\text{C}$. Protect against direct sunlight. At temperatures below $+ 15^{\circ}\text{C}$ the paraffin dissolved in the binding agent may fail. Stir up well the material before application! Shelf live 12 months in unopened drums. Should be stored inside!

Material Set-Up

Before commencing work ensure that your material is set-up by separating all components e.g. resins, hardener, filler etc.) to ensure that all material is correct. Check product labels and ensure there are equal amounts of product. Have MMA Monomer as cleaner handy for the tools.

Site Set-Up

Before commencing work ensure that your site is set-up. Mark the floor according to the specification with masking tape or similar to clearly identify what area (m^2) each unit will cover. If this is not achieved (greater or less consumption than the specified amount) immediately stop and contact Plasti Chemie.

Application Equipment

The use of correct application equipment is critical as incorrect application tools can result in poor finishing and incorrect material consumption. Always test the application equipment prior to commencing work. Read the Plastifloor® installation guide for further details!

Surface Preparation

Concrete should be finished by steel trowel. Surface preparation is to be completed by totally enclosed light shot blasting or coarse or diamond grinding to a minimum CSP3 prior to any coating application. For proper methods, refer to ICRI's Technical Guideline No. 03732. All cementitious laitance must be removed to expose a sound substrate and provide a dry, dust free, open textured surface. All hard to reach areas and areas around the perimeter must be prepared using hand held preparation equipment.

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Any damaged areas must be repaired with Plastifloor® 050/051 Mortar (after priming!). Any rough or uneven areas must be grind smooth or levelled with Plastifloor® 050/051. Contact Plasti Chemie for further information.

Application Temperature

The recommended material and substrate temperature is 0 - 30°C, but no less than 0°C without accelerator B 101. The temperature of the substrate should exceed the "dew point" by 3°C during application and hardening.

Application / Pot Life

Ready-mixed product should be used within 10 minutes at a temperature of 20°C and 3% Plastifloor® 50 W Hardener. At higher temperatures or higher catalyst levels (or if left in bucket) the application time is shorter. Decant mixed product into smaller quantities if applying small/detailed areas.

Application of Reinforcement

Banding

1. Before applying the Plastifloor® 800 PUMMA system, reinforce construction joints and cracks as follows:

Apply a band of Plastifloor® Primer 112 , 50 mm wider than the reinforcing scrim. Allow to cure. Apply a band of Plastifloor 800 PUMMA Membrane. While still wet, apply Polyester fabric, immediately followed by a second layer of Plastifloor® 800 PUMMA Membrane. Allow to cure.

2. Reinforce all horizontal and vertical junctions and gullies etc. as follows:

Apply a band of Plastifloor® 112 Primer and allow to cure.

Apply a fillet of Plastifloor® 540/h cove paste to horizontal/vertical junction and allow to cure.

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Application of Plastifloor® Primer

The substrate must be surface dry before the application of Plastifloor® 112 Primer. -> use Plastifloor® 118 primer for slightly wet substrate (up to 10% moisture)

1. Mixing

Thoroughly mix the resin with a slow speed drill and helical spinner and mix until uniform. Decant required amount of materials by weight using digital scales. Add required amount of Plastifloor® 50 W hardener powder and mix for a further 30 seconds.

2. Application

Immediately after mixing, apply the Plastifloor® 112 Primer by a thick roller ensuring a continuous, unbroken resin film is applied which ensures full through cure. Sprinkle slightly with Quartz 0,6-1,2 mm. Apply a second layer if glossy or tacky patches are visible after cure! The broadcasted sand must stick onto the primed surface after curing, if you can remove it prime again!

NOTE: The Plastifloor® 112 Primer should be applied either side of the reinforcement banding (Plastifloor® 800 PUMMA Membrane), not over it!

The remainder of the system should then be carried over the reinforcement banding.

Application of Plastifloor® 800 PD

Membrane

The substrate must be surface dry before the application of Plastifloor® 800 Membrane. Plastifloor® 800 Membrane can be applied immediately after application and curing of Plastifloor® 112 Primer, but also weeks later as long the surface is dry. 1. Mixing Thoroughly mix the resin with a slow speed drill and helical spinner and mix until uniform. Add required s/l filler and mix again for at least 3 min. Decant required amount of materials by weight using digital scales. Add required amount of Plastifloor® 50 W hardener powder and mix for a further 30 seconds.

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2. Application

Immediately after mixing, apply the Plastifloor® 800 PD Membrane by flat trowel, notched squeegee or notched trowel/rake ~ 1,5 -2,0 kg/m², slightly broadcast the wet membrane with quartz 0,6-1,2 mm. (~ 1kg/m²) Allow to cure.

Application of Plastifloor® 800 PB Coating

1. Mixing

Thoroughly mix the resin with a slow speed drill and helical spinner and mix until uniform. Add required s/l filler and mix again for at least 3 min. Decant required amount of materials by weight using digital scales. Then add 5% pigment paste (supplied separately) and mix for 30 seconds. Add required amount of Plastifloor® 50 W hardener and mix for a further 30 seconds

2. Application

Immediately after mixing, apply the Plastifloor® 800 PUMMA PD coating by notched squeegee or notched trowel/rake ~ 1,5 -2,0 kg/m² ensuring an even consistent film is achieved. Immediately back roll or spike roll the surface to smooth out any trowel lines.

Immediately after and before curing of Plastifloor® 800 PUMMA PD, fully broadcast with non slip aggregate (Quartz 0,6-1,2 mm or Bauxite) until refusal. Allow to cure. Lightly scrape the surface to remove any loosely bonded aggregate, sweep and vacuum remaining aggregate.

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Application of Plastifloor® 528 flexible Sealer

The substrate must be surface dry before the application of Plastifloor® 528 Flexible Sealer. Plastifloor® 528 Flexible Sealer should be applied after Plastifloor® 800 PD has cured completely.

1. Mixing

Thoroughly mix the resin with a slow speed drill and helical spinner and mix until uniform. Decant required amount of materials by weight using digital scales. Then add pigment paste (supplied separately) 10% and mix for 30 seconds. Then add required amount of Plastifloor® 50 W hardener and mix for a further 30 seconds.

2. Application

Immediately after mixing, apply the Plastifloor® 528 Flexible Sealer by roller (8 mm) ensuring an even consistent film is achieved. Allow to cure.

Application of 2nd Coat of Plastifloor® 528 Flexible Sealer

The substrate must be surface dry before the application of Plastifloor® 528 Flexible Sealer. Plastifloor® 528 Flexible Sealer should be applied after Plastifloor® 800 PD Coating has cured completely

1. Mixing

Thoroughly mix the resin with a slow speed drill and helical spinner and mix until uniform. Decant required amount of materials by weight using digital scales. Then add pigment paste (supplied separately) 10% and mix for 30 seconds. Then add required amount of Plastifloor® 50 W hardener and mix for a further 30 seconds.

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2. Application

Immediately after mixing, apply the Plastifloor® 528 flexible Sealer by roller ensuring an even consistent film is achieved. Allow to cure.

NOTE: To achieve the best aesthetic results, we recommend there is 1 operative on spike shoes rolling the coating in 1 uninterrupted motion the full width of the area being coated or the full width from joint to joint.

Cleaning

Tools and equipment can be cleaned with MEK/Acetone/Xylene or Plastifloor® MMA Monomer. Please refer to SDS when using solvents.

Trafficking

Allow to cure for a minimum of 2 hours at temperatures no less than 20°C before trafficking.

Notes

When printed or saved externally, this document is uncontrolled and therefore may not be the latest version. Any recommendation or suggestion relating to the use of the products made by Plasti Chemie, whether in its technical literature, or in response to a specific enquiry, or otherwise, is based upon data believed to be reliable, however the products and information are intended for use by Customers having requisite skill and know-how in the industry and therefore it is for the Customer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that the Customer has done so at its sole discretion and risk.

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Additional Notes

1. System allows for overcoating without mechanical preparation provided the surface is cleaned thoroughly.
2. The product has reached full chemical cure after 2 hours at 20°C.
3. The applied colours may differ from the examples shown.
4. Light and vibrant colours may require additional coats to achieve desired results.
5. Plasti Chemie assumes no responsibility for the application of incorrect colour.
6. It is the applicators responsibility to verify accuracy of colour prior to application. Plasti Chemie does not bear any responsibility or accept claims for incorrect colour after application of material.
7. It is recommended that top coat colours match base coat colours to achieve desired results.
8. This system is UV stable.
9. Work completed in sections may have minor shade variation in colours as the RH and temperature on differing days may impact final colour in a slight way.
10. This system should have no contact with water for 2 hours at 20°C or discolouration may occur.
11. This system should be installed at 3°C above the dew point.
12. Please ensure application temperature and RH limits are followed.
13. Wind or strong airflow may cause quick curing and drying of the system.
14. Ensure wind or strong airflow is eliminated during application, however adequate safety ventilation should still be followed.

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15. Direct heat during application of the system can cause flash curing and potential delamination. Ensure you do not apply this system to substrates with temperatures exceeding 30°C.

16. The specific slip test rating (R11-R13 range) noted in this document is based on the system design especially the size of the anti slip granulate and the amount of sealer applied, the products listed, coverage rates and specific aggregate outlined in this document. This slip test rating can and will change if the standard specification details or installation methods are altered in any way. Applicators should refer to methods outlined the MPI test certificates available on our websites: www.plastifloor.net and www.plasti-chemie.de and www.plasti-chemie-america.com

data concerning our products and devices as well as concerning our data and procedures are based on an extensive research work and an application technology experience. We obtain these results, with which we do not take over adhesion going beyond the respective single contract, in word and writing after best knowledge, reserve ourselves we however technical changes in the course of the product development. Beyond that our application technology service stands when desired for large consultation as well as for co-operation with the solution manufacturing and application technology problems for order. That does not relieve the user however to examine our data and recommendations before their use responsible for the own use. That applies - particularly for deliveries to foreign markets - also regarding the keeping of patent rights third as well as for applications and procedures, which are not expressly in writing indicated by us. The case of loss our adhesion is limited to indemnifications of same extent, as they plan our general terms of delivery and sales with lack of quality.