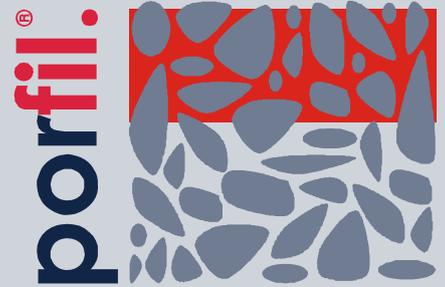


...the pore-filling, sealing and very low viscosity
EP-water-proofing for the time optimization of covering
and designing innovative surfaces

Solvent free according to Deutsche Bauchemie e.V.

(*European patent - patent worldwide pending)



Product properties:

- + excellent penetration of screed and concrete (grip and surface roughness of the surface are retained unchanged)
- + very low material consumption independent of the component thickness
- + 3 to 5 days after installation of the screed/concrete covering is possible
- + certified as moisture barrier
- + fast and simple application - surface primer and water-blocker in one step
- + application under carpet, tiles, parquet, PVC, linoleum, levelling fillers and floor adhesives
- + an additional primer can be omitted by choosing adequate floor adhesives
- + For perfect bonding capabilities oven-dried siliceous sand is applied to the still wet **porfil.®PLUS (X)** film-forming not necessary to seal the surface, pore-filling is sufficient
- + protects from rear surface moisture and seals resistant to pressurised water (up to 5 bar)
- + improvement of the mechanical parameters (abrasion resistance and adhesive pull strength)
- + CO₂-diffusion barrier, prevents penetration of chlorides etc...
- + high chemical resistance (oil, grease, kerosene, ...)
- + easy-to-clean surface
- + solvent free
- + does NOT contain either benzyl alcohol or nonyl phenol
- + VOC-certified: very low emissions

Applications:

Curing

- + of screed and green concrete
- + reduction of plastic shrinkage cracks due to early drying out
- + deformation behaviour is reduced

Pore filling primer

- + protects from rear surface moisture
- + seals resistant to pressurised water
- + mechanical parameters such as abrasion resistance and adhesive pull strength are improved

Epoxy mortar

- + low material consumption

Fixing binder

- + for fixing **pleyers. porbits®**

Colour:

porfil.® PLUS: blue

porfil.® PLUS X: transparent

Packaging:

Available in 0,75 kg and 5,00 kg multi component units
20,00 kg multi component units on demand

Storage:

Store in closed and unmixed, original containers under dry conditions and a temperature between 15-25 °C. Exposure to direct sunlight or temperatures below the storage temperature should be avoided. Under these conditions the material has a shelf life of 12 months.

Mixing ratio by weight:

100 parts component A
25 parts component B

Surface preparation:

The correct preparation of the substrate is of paramount importance. The substrate must be load-bearing, form stable, sound, free of loose material, dust, oil grease, rubber marks and other substances which may impair penetration. The tensile strength on the surface of the substrate must be 1,5 N/mm² on average, compressive strength at least 25 N/mm².

Any laitance, mould release agents, curing membrane and other contaminants present on the surface must be removed mechanically. Shot blasting and surface grinding followed by vacuum cleaning or high pressure water jetting are the preferred methods. Missing and broken out areas in the substrate should be filled/closed flush with the surface by adequate means (e.g.: Epoxy mortar).

Epoxy mortar:

porfil.® PLUS (X) may be mixed with siliceous sand to the desired consistency (mixing ratio **porfil.® PLUS (X)** : sand up to 1:25 by weight) to repair patches or form coverings. In either case the mixed mortar must be applied to a surface previously cured with **porfil.® PLUS (X)** and the mortar must be incorporated into the still tacky **porfil.® PLUS (X)**.

Mixing:

porfil.® PLUS (X) is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, precondition both the A and B components to a temperature of approximately 15 to 25°C. Punch several holes through the plastic lug and bottom of the lid with a screwdriver. Slightly lift the lid and allow the hardener to flow completely into the lower canister. DO NOT MIX BY HAND. To achieve a homogenous consistency and an intensive blending the two components are mixed intensively with a mechanical drill fitted with a paddle at low speed (approx. 300 rpm). Scrape the sides and the bottom of the container several times to

ensure complete mixing. The mixing must be carried out until a homogenous state, free of streaks, is achieved, but at least for 3 minutes. Do not work out of the original container. After proper mixing pour the mixed resin into a clean container and mix for a further minute. If required (epoxy mortar) siliceous sand is added under continuous stirring.

Application:

Before application on absorbent substrates a waterdroptest should be carried out. A waterdrop set on the surface has to spread and must be absorbed into the substrate after 1-2 minutes. **porfil.*PLUS (X)** is poured onto the prepared substrate and spread with a squeegee (rubber lip). ALLOW TO CURE! After a short operating time (minimum: 30 minutes) a second application step is carried out. On very porous substrates a further application step may be required (the surface becomes light grey again, showing absorption). Re-prime the dry areas and allow to cure again.

The epoxy excess must be spreaded crosswise on the surface with a laquer roller to fix siliceous sand (0,4-0,8mm) (perfect bonding capabilities for coverings) or **pleyers. porbits*** in the still tacky **porfil.*PLUS (X)**.

The curing time of the material is influenced by the ambient material and substrate temperatures. At low temperatures, the chemical reactions are slowed down, this lengthens the pot-life, open time and curing times. High temperatures speed up the chemical reactions thus the time frames mentioned above are shortened accordingly. To fully cure, the material, substrate and application temperatures should not fall below the minimum.

Permissible ambient and substrate temperatures:

Minimal +12°C, maximal +50°C.

Estimating data:

Consumption will vary according to the surface texture and porosity, but should be in the range of 0,100 - 0,300 kg/m². The above consumption figures are intended as a guide only and may be higher on very rough or porous substrates. Therefore a test application is recommended to define the object-specific material consumption.

Viscosity:

porfil.*PLUS (X) is a very low viscosity material with only slightly increasing viscosity at low temperatures.

+ 12°C	+ 20°C	+ 30°C	+ 50°C
rd. 90 mPa s	50 mPa s	40 mPa s	25 mPa s

Application time:

Pot life will vary according to the ambient and substrate temperatures. The mixed material will have a pot life of approximately 30 minutes at 20°C.

	+ 12°C	+ 20°C	+ 30°C	+ 50°C
In container ≤ 2 kg	Ca. 45 minutes	ca.30 minutes	ca. 15 minutes	ca. 8 minutes
Poured out on the substrate	ca. 60 minutes	ca.45 minutes	ca. 30 minutes	ca. 15 minutes

Curing:

Cure time will vary depending on the ambient and substrate temperatures. **porfil.*PLUS (X)** will cure to a tack free surface within 24 hours at 20°C

+ 12°C	+ 20°C	+ 30°C	+ 50°C
> 48 hours	> 24 hours	> 12 hours	> 4 hours

Overcoating:

A **porfil.*PLUS (X)** primed surface must be treated as a **non-absorbing substrate** and can be coated with suitable paintings, coatings or floor covering adhesives. To define the compatibility, samples have to be applied first.

Cleaning:

Tools must be cleaned immediately after use with a solvent such as isopropanol or other suitable solvents. Cured material can only be removed mechanically.

Precaution/Waste disposal:

GISCODE: RE 1

Hazardous material regulations: mark-duty. For the handling of **porfil.*PLUS (X)** the important physical, safety-related, toxic and ecological data have to be extracted from the safety-data-sheet. The instructions for hazardous material handling should be followed. The product information and safety advices on the containers as well as the individual accident prevention regulations from the responsible employees' insurance during the application are to be noticed.

In the uncured condition **porfil.*PLUS (X)** is as a rule hazardous to water and is therefore not allowed to get into the sewerage, water and ground. Uncured quantities of this product are as a rule special wastes needing monitoring and must be disposed properly. After the agreement of the relevant responsible body or waste disposal, cured material can be disposed as house-/industrial waste.

The local bodies, for example environmental protection agency or commercial control office, have a duty to disclose information therein.

Other:

Delivery only for commercial or industrial use.

Up-to-date: 07.01.2009

Current technical datasheet: www.porfil.com

All aforementioned indications, especially proposals on applying and using this product are based on our knowledge and experience of normal cases and are not binding. Due to different materials, undergrounds and varying working conditions a guarantee of treatment quality can not be given. Disregarding the legal relationship, no liability results from either these information or any consultation, unless we make ourselves guilty of gross negligence or malice aforethought. In this case, it is necessary that the applicant has informed us in written and in due time on all information and skills, which are relevant for a promising evaluation. Third parties' rights have to be safeguarded. Further, our respective Conditions of Sale and Delivery are valid as well as our current Technical Data Sheet, which should be requested.