TECHNICAL DATASHEET

porfil.® ECO

transparent

pore-filling sealing, very low viscosity and pressure waterproof 2-component EP impregnating agent for optimizing the grip and designing innovative surfaces

Product description:

porfil.® ECO is used on all cementitious substrates (e.g. concrete, screed) as a pore-filling, sealing primer, which seals against any moisture penetration from the rear, including water under pressure. A surface primed with **porfil.® ECO** can be reworked with suitable coatings, paints, etc., but can also be used without reworking. Can also be used as epoxy resin mortar and binder for the design of innovative **porviva®** design- surfaces.

Fields of application:

as aftertreatment

- for all cementitious substrates (e.g.: concrete, screed)
- Reduction of shrinkage cracks due to premature drying out
- Cupping behavior is reduced

as a pore-filling sealer

- protects against moisture penetration from the back
- Sealing against water under pressure
- Improvement of mechanical parameters (wear resistance, adhesive tensile strength)
- low material consumption (mixed with fire treated quartz sand)

Product features and further information:

Container size in kg:	**10,00 kg** (Comp. A: 6,67 kg + Comp. B: 3,33 kg)
Container Content in liters:	**Comp. A:** 6,00 Liter, **Comp. B:** 3,58 Liter
Type of packaging:	**Comp. A:** 12 L Steel drum, **Comp. B:** 2,5 L Plastic Jerrycan
Packing type:	**Comp. A:** UN 1A2/Y Steel drum **Comp. B:** UN 3H1 Plastic Jerrycan
Good/ Dangerous goods:	**Comp. A: UN 3082, Class 9, Packaging group III** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin) **Comp. B: UN 2735, Class 8, Packaging group III** AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE)
VOC-Content g/L):	Delivery state: **Comp. A** < 0, **Comp. B** < 0
Palleting:	300 kg per palette (30x Comp. A und B) or 450 kg per palette (45x Komp. A und B)
GISCODE:	RE1
UFI CODE:	**Comp. A** UFI YEN3-S0JE-J00G-N2P7 **Comp. B** PPC0-00N0-M001-TJ4S
Storable:	Well-closed and unmixed containers must be stored in a dry place and in the temperature range of 15-35 °C. Avoid direct sunlight and storage temperatures below the specified limits. The material is at risk of frost!
Shelf life:	Under the conditions specified above, the material can be stored for approx. 24 months. There is no guarantee for the shelf life of opened containers. The material should be used immediately after opening.

The following product information can be requested from us:

- Product information
- Safety data sheets
- test reports

PRODUCT VARIANTS:

- TRANSPARENT

APPLICATION AREAS:

- AIRPORTS
- INDUSTRIAL FLOORS
- COMMERCIAL ROOMS
- OFFICE ROOMS
- PRIVATE ROOMS
- PARKING HOUSES,
- WATER AND THEME PARKS
- RESTAURANTS
- LANDSCAPING

SUBSTRATES:

- CONCRETE
- SCREED
- CEMENT FILLERS
- PORVIVA® SURFACES

PROPERTIES:

- VERY GOOD PENETRATION OF CONCRETE/SCREED
- DURABLE
- EFFICIENT CONSUMPTION
- EASY TO CLEAN
- EASY TO OVERWORK
- FAST OCCUPANCY
- PROTECTION AGAINST REAR MOISTURE PENETRATION
- SOLVENT FREE & VERY LOW EMISSION

PORVIVA GMBH
Adamsmuehle 1
52146 Wuerselen
(Germany)

fon: +49 (2407) 568 303-0
fax: +49 (2407) 568 303-30

www.porviva.com
office@porviva.com

Status from: 14.09.2023

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Consumption:

ca. 0,100 – 0,250 kg/ m²

Consumption rates depend on the surface structure and porosity and should be in the range of 0.100 - 0.250 kg/m². The **values given are only guide values and may be higher on very rough and open-pored surfaces**. Therefore, a test area is recommended to determine the object-specific consumption values.

Mixing ratio:

100 parts by weight comp. A / 50 parts by weight comp. B

Surface preparation:

The correct preparation of the substrate is of utmost importance. The substrate must be load-bearing, dimensionally stable, solid, free of loose parts, dust, oils, greases, rubber abrasion and other substances that influence the penetration capacity.

The surface tensile strength of the substrate must be 1.5 N/mm² on average, the compressive strength at least 25 N/mm².

Any sludge, formwork oil, after-treatment agents and other impurities on the surface must be removed mechanically. Shot peening and disc grinding followed by vacuuming or high-pressure water jetting are the preferred methods here.

Chipping and defects in the substrate must be repaired flush with the surface using suitable agents (e.g. epoxy mortar).

Epoxy mortar:

porfil.® ECO can be mixed with fire-dried quartz sand to the desired consistency (mixing ratio **porfil.® ECO** : sand up to 1 : 35 parts by weight), e.g. to repair defects or to form coves. In both cases, the substrate must be treated with **porfil.® ECO** beforehand and worked into the still damp **porfil.® ECO**.

Mixing:

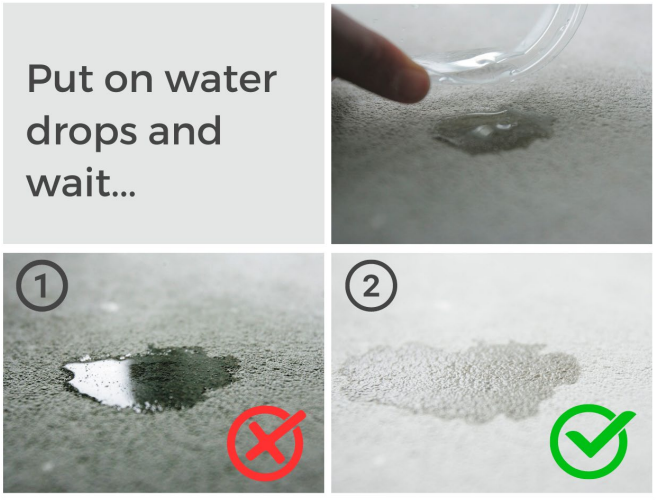
porfil.® ECO consists of a master component and a hardener component, which are supplied in the correct, coordinated mixing ratio. Component B must be completely emptied into the container of component A and mixed with an electric stirrer. The mixing time is at least 2 minutes and is only finished when there is a homogeneous mixture.

Transfer (repot) the mixed material into a clean container and mix again briefly.

Processing information:

Before application on absorbent substrates, a water drop test should be carried out. A water drop placed on the surface must spread and be absorbed into the substrate after 1-2 minutes.

Water drop test:



The waterdrops must penetrate the substrate within a short time and dry up damp, as shown in picture no. 2.

1. **Working step:**

porfil.® ECO is poured onto the prepared substrate and spread with a rubber squeegee, or with a roller in case of smooth substrates. GIVE TIME! After a waiting time (minimum: 30 minutes) sharply peel off with the rubber squeegee and roll evenly on the surface with the paint roller in a cross pattern, in case of smooth substrates roll evenly on the surface only with the paint roller in a cross pattern.

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A second pass is necessary if the surface appears dull, light areas are visible and the substrate is still absorbent - applied water drops are absorbed and do not remain damp on the treated surface for a long time.
A film due to excess material should not be visible on the surface. The impregnation of the first operation should have penetrated into the substrate before the second operation.

2. **Working step:**

Pour the mixed epoxy resin onto the substrate and spread with a rubber squeegee. After a short standing time (up to 30 minutes depending on concrete / screed quality), sharply remove the epoxy resin with the rubber squeegee.

Viscosity:

porfil.® ECO is a very low viscosity material with only slightly increased 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

Processing times:

The end of the working time is not necessarily indicated by an increase in viscosity. The pot life in the container is approx. 10 minutes. On the surface up to 1.5 hours.

Others:

Dispensing only to commercial or industrial processors.

Air and substrate temperatures:

Minimum +12°C , maximum +50°C.

Rework:

A surface treated with **porfil.® ECO** can be recoated like a non-absorbent substrate with suitable paints, coatings and flooring adhesives. To determine the compatibility sample surfaces should be made in any case.

Curing:

The drying times of the treated surfaces depend on the ambient and floor temperature. The temperature of the surrounding air and that of the substrate must not fall below 8 C. **porfil.® ECO** cures tack-free at 20 °C within 24 hours. At higher temperatures the drying time is shortened, at lower temperatures it is prolonged.

Equipment cleaning:

Immediately after use, the tools can be cleaned with suitable thinners. When dry, only mechanical removal is possible.

Protective measures/disposal:

Ordinance on Hazardous Substances: Subject to labeling.

For handling **porfil.® ECO**, the essential physical, safety, toxicological and ecological data are to be taken from the substance-specific safety data sheet. The regulations of the Ordinance on Hazardous Substances must be observed. During application, the hazard warnings and safety advice on the container and the accident prevention regulations of the relevant trade associations must be observed. When not cured, **porfil.® ECO** is generally hazardous to water and must therefore not be allowed to enter drains, watercourses and soil. Uncured product residues are usually waste requiring special supervision and must be disposed of properly. Cured material can be disposed of as household/commercial waste after consultation with the relevant authority or landfill site. The local authorities, e.g. district office, environmental protection office or trade supervisory office, are responsible for providing information on proper disposal.

The above information, in particular the suggestions for processing and use of this product, are based on our knowledge and experience under normal circumstances. However, they remain non-binding. Due to the different materials, substrates and deviating working conditions, a warranty of a work result or a liability, from whatever legal relationship, can neither be justified from these instructions, nor from a verbal consultation, unless we are charged with intent or gross negligence in this respect. In this respect, the user must prove that he has provided us in writing with all the knowledge required for a proper and promising assessment in good time and in full. Industrial property rights of third parties are to be observed. In all other respects, our respective terms and conditions of sale and delivery shall apply. The latest technical data sheet shall apply and should be requested from us by phone: +49 (2407) 568 303-0 or by e-mail: office@porviva.com.