#### TECHNICAL DATASHEET



## transparent/transp. red

Concrete impregnation under bituminous welded sheeting

#### Product description:

**porfil.® BIT** is a pore-filling, super-low viscosity and pressurized waterproof 2K-EP-concrete impregnation under bituminous welded membranes on bridges and flat roofs.

#### Fields of application:

#### as aftertreatment

- of screed and young (green) concrete → rapidly ready for covering
- Reduction of shrinkage cracks due to premature drying out
- Cupping behavior is reduced

#### as a pore-filling sealer

- protects against moisture penetration from the rear side
- Sealing against pressurized water
- Improvement of mechanical parameters (wear resistance, adhesive tensile strength)

#### Product features and further information:

**Container size in kg: 10,00 kg** (Comp. A: 8,00 kg + Comp. B: 2,00 kg)

Container Content in liters: Comp. A: 7,34 liters, Comp. B: 2,32 liters
Packing type: Comp. A: 12 L Steeldrum, Comp. B: 2,5 L Plastic Jerrycan

Package type: Comp. A: UN 1A2/Y Steeldrum

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 MG<700)

Comp. B: UN 2327, class 8, packaging group III

TRIMETHYLHEXAMETHYLENEDIAMINES,LIQUID, CORROSIVE

**VOC-content g/L):** Delivery state: Comp. A < 0, Comp. B < 0 300 kg per pallet (30x Comp. A and B) or

450 kg per pallet (45x Comp. A and B)

GISCODE: RE

**UFI CODE: Comp. A** 81P3-A0D6-P00X-9FRP

Comp. B./.

**Shelf life:** 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. 12 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
- Instruction guide



#### **PRODUCT VARIANTS:**

- TRANSPARENT
- TRANSPARENT REDDISH

#### **APPLICATION AREAS:**

- BRIDGES
- ROOFS
- FLAT ROOF

#### **UNDERGRADES:**

- CONCRETE
- SCREED
- MORTAR
- PORVIVA® SURFACES

#### **PROPERTIES:**

- HEAT RESISTANT DURING WELDING OF BITUMINOUS WELDING SHEETS
- NOT FILM-FORMING
- WATER VAPOR BARRIER
- NO DANGER OF OSMOTIC BUBBLE FORMATION
- SIMPLE PROCESSING
- LOW MATERIAL CONSUMPTION
- LONG LASTING

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# porfil.® BIT

# POFVIVA innovative surfaces

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#### Consumption:

Usual material consumption rates are between 80 and 200  $g/m^2$  for the first coat and between 50 and 150  $g/m^2$  for the second coat. The consumption quantities depend on the absorbency, roughness and moisture of the substrate, as well as the application and ambient temperature. Therefore, it is recommended to apply a test surface to determine the object-specific consumption quantities.

#### Mixing ratio:

100 parts by weight comp. A / 25 parts by weight comp. B

#### Substrate preparation:

If porfil.® BIT is used as a curing agent, the surface of the green-strength concrete or concrete substitute must be free from slurry accumulation and/or standing moisture. The surface must be dried so that the substrate is sufficiently absorbent; loose particles and dust must be removed. To assess whether the substrate is sufficiently absorbent, a water drop test can be carried out. In this case, water drops must be applied to a sufficient number of points on the surface to be reworked and their penetration behavior into the substrate checked. The water must penetrate into the substrate within a short time and must dry up damp.

Put on water drops and wait...







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

If this is the case, the substrate is to be classified as absorbent. When using **porfil.** BIT as a pore-filling and

heat-resistant sealer under a weldable membrane according to ZTV-ING part 7, section 1), the substrate must be prepared. The surface preparation determines skid resistance, roughness and the quality of the surface to be impregnated. The substrate must be clean and free from all loose particles, cement slurry, dust, oil and other separating substances. It must have a peel strength of 1.5 N/mm2 (smallest single value 1.0 N/mm2). In addition, the surface must be dried to such an extent that the substrate is sufficiently absorbent (see previous water drop test). Extreme chipping or depressions must be closed to avoid surface defects. For this purpose, before impregnation with porfil.® BIT, leveling or reprofiling can be carried out with a plastic-modified mortar 104 or 108) or also with a scratch and leveling filler. After impregnation with porfil.® BIT, pure cementitious mortars are no longer to be used.

#### Mixing:

porfil.® BIT 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 3 minutes and is only finished when a homogeneous mixture is present. Transfer (repot) the mixed material into a clean vessel and mix again briefly.

#### Processing instructions:

Application of **porfil.** BIT is usually carried out in one pass, or in two passes in the case of highly absorbent substrates:

1st working step:

Pour mixed epoxy resin onto the concrete substrate and spread with a rubber blade. After a short standing time (up to 10 minutes, depending on the concrete quality), sharply remove the epoxy resin with the rubber squeegee.

Lumpy films and puddle formation must be avoided! If the absorbency of the substrate requires a second working operation, which can be recognized by a matt surface, this should be carried out after a waiting time of one to two hours.

#### 2nd working operation:

Pour mixed epoxy resin onto the concrete substrate and spread with a rubber blade. After a short standing time (up to 10 minutes, depending on the concrete quality), the epoxy resin must be sharply removed with the rubber squeegee.

Avoid speckly films and the formation of puddles!

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#### Processing times:

The end of the processing time is not necessarily recognizable by an increase in viscosity. Therefore, **porfil.® BIT** must not be processed after exceeding the specified processing times.

	+ 8°C	+ 20°C	+ 30°C	+ 50°C
In container 1)	ca. 45	ca.30	ca. 15	ca. 8
	minutes	minutes	minutes	minutes
cast State 2)	ca. 60	ca.45	ca. 30	ca. 15
	minutes	minutes	minutes	minutes

<sup>1)</sup> Batch size ≤ 2 kg

#### Curing:

The drying times of the treated surfaces, which depend on the ambient temperature, are given in the table below. The temperature of the surrounding air and that of the substrate must not fall below 8°C and 0°C respectively.

+ 8°C	+ 20°C	+ 30°C	+ 50°C
> 48 hours	> 24 hours	> 12 hours	> 4 hours

#### Air and substrate temperatures:

Minimum 0°C, maximum +50°C. There is no general dew point problem - Sufficient absorbency (water drop test) must be ensured in any case! NOTE: When processing at temperatures between +0°C and +8°C, certain application procedures must be carried out and adhered to. For more detailed information, please contact our AWT.

#### 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.® BIT, 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.® BIT is generally hazardous to water and must therefore not be allowed to enter drains, watercourses or 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.

#### Others:

Dispensing only to commercial or industrial processors.

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.

<sup>&</sup>lt;sup>2)</sup> on the concrete base