### **Data Sheet**

# Floortec 2K-EP Sealer 848

Silk gloss, water-dilutable, low odor, water vapor permeable, for use indoors















#### Field of application

For colored sealers exposed to pedestrian and vehicular traffic on mineral surfaces in interior areas with light to medium stressing, e.g., in storage, basement, cold storage and salesrooms, privately used single and double garages (not in underground car parks or parking garages), and on industrial floors. On intact mineral substrates, e.g., cement screed (CT), concrete (C), plaster in wall areas (MG PII, PIII), intact epoxy resin coatings etc. Can also be used in system build-up with Floortec 2K-Aqua Base 809 on a calcium sulfate screed (CA – anhydrite flow-screed). Also suitable as a colored top seal on Floortec 2K-Aqua Thick Coat 810.

#### **Properties**

- Water-dilutable
- Low odor
- Solvent-free
- Good mechanical resistance
- Resistant to thinned alkalis, weak acids, oils, gasoline, water, watery salt solutions (e.g., de-icing salt) as well as many other substances according to the test certificate
- Water-vapor-permeable
- With good adhesion and hiding power
- Very easy to clean

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- Easy to apply
- Can be combined with Floortec Decochips 843
- Suitable for chair-castor loads
- Tested in accordance with the requirements of the AgBB scheme and in accordance with the test certificate for use with indirect contact with foodstuffs
- Adding Floortec Safe-Step 841 tested as a slip-resistant coating with slip resistance class R 10 in accordance with the test certificate or sliding friction coefficient in accordance with DIN 51131  $\mu$ NM  $\geq$  0.55 (suitable for use, without restrictions) in accordance with the test report and for use in wet barefoot areas, anti-skid effect (Group A) in accordance with the test certificate



#### Material description

Standard color shades Scala Description

03.03.18 RAL 7030 Stone gray 90.03.18 RAL 7032 Pebble gray

A number of additional color shades can be mixed with the Brillux Color System. Color design with Floortec Decochips 843 is also possible.

Gloss grade Silk gloss

Base material Water-dilutable two-component epoxy resin

**Density** Approx. 1.4 g/cm<sup>3</sup>

Castor chair resilience in accordance with EN 425

Chair-castor suitable in accordance with DIN EN 12529, type W (soft)

Packaging Standard: 3 kg, 10 kg

Color System: 3 kg, 10 kg (hardener in separate container)

Use

Waiting time Using the Brillux Color System, before application, allow tinted material

to cure for a day, to ensure higher color accuracy.

Mixing ratio 6 parts by weight of Floortec 2K-EP Sealer 848 to 1 part by weight of

Floortec EP Hardener 849 (4.5 : 1 parts by volume of the specified

default color shades).

Mixing Before adding the hardener, thoroughly stir the base material until it is

even. Mix base component and hardener in the specified mixing ratio shortly before application. Ensure that the hardener container is completely emptied without residue. Mix both components thoroughly, until a streak-free, homogeneous mixture is obtained. Avoid inclusion of air during mixing. To this end, we recommend the use of a slow-speed mixer (max. 400 rpm) with a special stirrer for two-component (2C) materials. Then pour the mixture into another clean container and stir again thoroughly. Do not mix freshly mixed material with residual material. You must comply with the limited time for use (pot life). Stir

additives with Floortec Safe Step 841 after mixing.

**Pre-reaction time** After mixing, allow to pre-react for at least 10 minutes.

**Thinning** If necessary, thin with water. In general, only thin after mixing.

Depending on the substrate absorbency, thin by up to 10% for priming,

and by up to approx. 5% for the intermediate and top coats.



## Addition of slip-resistant configuration (optional)

To increase the slip resistance, after mixing in Floortec 2K-EP Sealer 848, add approx. 3 wt.% Floortec Safe Step 841 and stir thoroughly. Addition for 3 kg + Hardener: 3.5 cap fills of Floortec Safe Step 841 (corresponds to approx. 105 g).

Addition for 10 kg + Hardener: 12 cap fills of Floortec Safe Step 841 (corresponds to approx. 350 g).

The container cap can be used for portioning. Fill the cap up to the bottom edge of the toothed fluting. Important note: The white sealing pad must be present or must be inserted. Ensure compliance with the exact amount. After work breaks, stir the material thoroughly.

### Design with Decochips (optional)

For alternative surface design, Floortec Decochips 843 can also be scattered into the fresh top coat. These surfaces are also to be sealed with Floortec 2K-Purolid T 876, silk matt or Floortec 2K-Purolid T 877, silk gloss. Using Floortec Decochips 843 with a subsequent clear sealer is only possible on smooth floor sealers without the addition of Floortec Safe Step 841. For use with Decochips and clear sealer, observe the note on "Clear sealed areas" and follow the instructions in the clear sealer data sheets.

**Tinting** Do not tint.

**Compatibility** Can only be mixed with materials specified in this data sheet.

#### **Application**

Uniformly apply the mixed floor sealer using the brush and roller methods with a long-bristle paint brush and the Microfiber Paint Roller 1221. We recommend using the plastic Paint Grid 1484. Avoid ponding at all costs. For corners and other hard-to-reach places that cannot be painted using the Microfiber Paint Roller 1221, pre-paint with a flat brush and immediately roll over as far as possible to avoid any visible edge marks. To ensure smooth, rapid processing, we recommend coordinating the number of employees to the size of the work area before starting. To achieve Slip Resistance R10, apply a top coat of Floortec 2K-EP Sealer 848, adding Floortec Safe Step 841. Continue to stir the mixed material thoroughly during processing to ensure Floortec Safe Step 841 is evenly distributed into the material. When processing, do not set or press the paint roller onto the base of the paint vessel. When using intense bright colors, we recommend applying an additional transparent sealer with Floortec 2K-Purolid T 876, silk matt, or Floortec 2K-Purolid T 877, silk gloss. Follow the instructions in "Notes".

Pot life (at +20°C)

Approx. 90 minutes. After the pot life period has ended, do not thin the material again or continue to use it. Higher temperatures shorten the pot life.

#### Consumption

Approx. 200 to max. 250 g/m² per layer. Excessive film thicknesses (overconsumption) must be avoided. Determine the exact consumption by means of a test application on the object to be coated. For a certified, slip-resistant system build-up, the consumption data in accordance with the relevant test verification applies.



#### Use

#### Application temperature

Do not apply at temperatures below +10°C or above a max. of +30°C air, substrate and material temperature. Take the dew point temperature into consideration. Do not apply unless the temperature is at least 3°C above the dew point. The relative humidity must not exceed 80%.

#### Tool cleaning

Clean tools with water and wetting agent immediately after use.

#### Drying (+20°C, 65% relative humidity)

The waiting period between the individual work steps is at least 12 hours. In order to achieve good adhesion without sanding, the following treatment must be applied within 48 hours. Can be stressed after approx. 7 days. Apply sealer with Floortec 2K-Purolid T 876, silk matt, or Floortec 2K-Purolid T 877, silk gloss, after 12 hours at the earliest, and within 36 hours at the latest.

Allow longer drying times at lower temperatures and/or higher air humidity. During the drying and curing phase, ensure proper ventilation. The Blower TG1 1800 can be used to promote the drying process.

#### Storage

Store in a cool, dry and frost-free place. Reseal opened containers tightly.

#### **Declaration**

#### **Product code**

RE1

Comply with the specifications in the current safety data sheet.



#### Substrate preparation

The substrate must be solid, dry, clean, with good adhesiveness, loadbearing, dimensionally stable and free of separating agents or other intermediate layers affecting adhesion. The substrate must always comply with the relevant technical construction standards. The minimum tensile strength must be 1.5 N/mm<sup>2</sup> in the center. Depending on the degree of exposure, a minimum substrate strength is required. For light stress to the surface, e.g. from low foot traffic or limited vehicle traffic of light vehicles that have soft tires, a minimum strength category of at least CT-C30, C20/25 or CA-C30 is required. A strength category of at least CT-C40, C30/37 or CA-C40 is required for a medium stress on the surface, e.g. from moderate foot traffic and vehicular traffic with cars. The substrate must be protected against rising damp. The residual substrate moisture of concrete and cement screed must not exceed 4 CM% and for calcium sulfate screed (anhydrite screed), 0.5 CM%. Smooth surfaces, e.g., surfaces smoothed with a steel trowel, must be roughened to improve their adhesion. Use an electric sander to sand calcium sulfate screed (grain size 16) and vacuum. Follow the instructions in the Leaflet 7/1990 of the Federal Association of Screed and Floor Covering (Bundesverband Estrich und Belag e. V.; BEB). Any dirt, e.g. oils, fats, rubber abrasions, etc., and non-bearing layers, e.g., single-component and non-bearing two-component coatings must be removed by means of an appropriate object-related procedure, e.g., paint stripping, milling, dust-free shot blasting. Intact, rigid, firmly adherent two-component coatings must be cleaned and sanded slightly or matt blasted. All substrates that have been applied through a system build-up process with scratch, cavity or smoothing filling (self-leveling coating), must have this coating removed and be pretreated using the shot blasting method. Fill smaller cavities and damaged areas in mineral substrate flush with the surface with a mixture of Floortec 2K-EP Sealer 848 and Floortec Quartz Sand 1526 that is suitable for filling. Fill larger damaged areas (depth > 5 mm) flush with the surface with the repair mortars of the Brillux concrete protection system. See also VOB Part C, DIN 18363, Section 3.



#### Coating build-up

#### Standard system build-up for Floortec 2K-EP Sealer 848

Substrates	Prime coat	Intermediate coat	Top coat
Untreated, normally absorbent floor surfaces, interior, e.g., concrete and screed surfaces	Floortec 2K-EP Sealer 848, diluted up to 10%, or Floortec 2K-Aqua Base 809, 1:1 water- diluted	Floortec 2K-EP 848 1)	Floortec 2K-EP Sealer
Untreated, highly absorbent floor surfaces, interior	Floortec 2K-Aqua Base 809, diluted with water (1:2)		848 1)
Calcium sulfate screed (anhydrite screed), interior	Floortec 2K-Aqua Base 809, 1:1 water-diluted	848	Flooring 2K FD Cooley
Intact, rigid two-component coats, indoors	If required, rough areas with Floortec 2K-EP Sealer 848, diluted up to 10%		Floortec 2K-EP Sealer 848 with 3 wt.% Floortec Safe-Step 841 3) Consumption:
Worn floor areas, interior	2K-Aqua EP Primer 2373		approx. 130–150 g/m²

<sup>&</sup>lt;sup>1)</sup> For alternative surface design, Floortec Decochips 843 can also be applied in the subsequent clear sealer. We recommend reapplying a transparent two-component PUR sealer when using very bright or intense color shades from the Brillux Color System, to increase the cleanability and durability of the surfaces.

#### System build-up Floortec 2K-EP Sealer 848 with scratch, hole or smoothing filling

Substrates	Prime coat	Filling 1)	Intermediate coat	Top coat
Untreated, normally absorbent floor surfaces, interior, e.g., concrete and screed surfaces	Floortec 2K-Aqua Base 809, 1:1 water- diluted	Scratch, hole or smoothing filling with Floortec 2K- Aqua Base 809, 1:1 with Floortec Quartz Sand 1526		Floortec 2K-EP Sealer 848 <sup>2)</sup>
Untreated, highly absorbent floor surfaces, interior	Floortec 2K-Aqua Base 809, diluted with water (1:2)		Floortec 2K-EP Sealer 848	Floortec 2K-EP
Calcium sulfate screed (anhydrite screed), interior	Floortec 2K-Aqua Base 809, 1:1 water- diluted			Sealer 848 with 3 wt.% Floortec Safe-Step 841 <sup>3)</sup> Consumption: approx. 130–150 g/m <sup>2</sup>

<sup>1)</sup> Do not sand filled surfaces. Follow the instructions in the Floortec 2K-Agua Base 809 data sheet.



<sup>&</sup>lt;sup>2)</sup> In the system build-up, slip-resistant R 10 or sliding friction coefficient in accordance with DIN 51131 and BGI/GUV-I 8687 μNM > 0.70 (fully operational) and tested for use in wet barefoot areas, anti-skid effect (Group A), taking into account the installation instructions in accordance with the test relevant certificate.

<sup>&</sup>lt;sup>2)</sup> For alternative surface design, Floortec Decochips 843 can also be applied in the subsequent clear sealer. We recommend reapplying a transparent two-component PUR sealer when using very bright or intense color shades from the Brillux Color System, to increase the cleanability and durability of the surfaces.

<sup>&</sup>lt;sup>3)</sup> In the system build-up, slip-resistant R 10 or sliding friction coefficient in accordance with DIN 51131 and BGI/GUV-I 8687 μNM > 0.70 (fully operational) and tested for use in wet barefoot areas, anti-skid effect (Group A), taking into account the installation instructions in accordance with the test relevant certificate.

#### System build-up for Floortec 2K-EP Sealer with filler for surfaces subject to foot traffic \*, interior

Filling 1)	Prime coat	Intermediate coat	Top coat
Smoothly fill and sand with Floor Leveling Compound 3115 or Floor Leveling Compound FX 3109  Floortec 2K-EP Sealer 848, diluted up to 10%		Floortec 2K-EP Sealer 848	Floortec 2K-EP Sealer 848 2)
	Sealer 848, diluted		Floortec 2K-EP Sealer 848 with 3 wt.% Floortec Safe-Step 841 3) Consumption: approx. 130–150 g/m²

<sup>\*)</sup> Only for surfaces subject to foot traffic in interior areas. Follow the instructions on "Surface and use of filled, sealed surfaces".

<sup>&</sup>lt;sup>3)</sup> In the system build-up, slip-resistant R 10 or sliding friction coefficient in accordance with DIN 51131 and BGI/GUV-I 8687 μNM > 0.70 (fully operational) and tested for use in wet barefoot areas, anti-skid effect (Group A), taking into account the installation instructions in accordance with the test relevant certificate.

Notes	
Contiguous surfaces	Only coat contiguous areas with material from the same batch. Apply the top coat uniformly and in layers that are thin as possible to achieve a surface that has a uniform color shade and degree of gloss.
Ensure ventilation	Ensure proper ventilation during application and drying indoors. Depending on the individual requirements, proper ventilation is recommended, e.g., the Blower TG1 1800.
Take the dew point temperature into consideration	If the dew point temperature limit is not adhered to (especially during pronounced and short-term temperature fluctuations and in hot summer months), patches of varied colors and glosses may occur, e.g., in basements.
Take the dew point temperature into consideration	If the dew point temperature limit is not adhered to (especially during the hot summer months), e.g., in basements and garages, patches of varied colors and glosses may occur. For this reason, during application and drying, ensure proper ventilation. Depending on the individual requirements, proper ventilation is recommended, e.g., the Blower TG1 1800.
Detrimental changes in appearance	Constituents from organic substances (e.g. tea, coffee, red wine, plant parts, leaves, etc.) and chemicals such as disinfectants and acids may result in changes in the coating's color. Abrasive stress may result in scratches in the surface. The functionality is not affected by these changes in appearance.
Discolorations caused by plastic materials	Contact with plastic materials, e.g. profiles, sealants, and vehicle tires may result in changes in the coating's color.



<sup>&</sup>lt;sup>1)</sup> The surfaces are to be sanded with a disc grinder, grain size P 120 and thoroughly vacuumed prior to the coating build-up. Follow the instructions in the Floor Leveling Compound 3115 and Floor Leveling Compound FX 3109 data sheets.

<sup>&</sup>lt;sup>2)</sup> For alternative surface design, Floortec Decochips 843 can also be applied in the subsequent clear sealer. We recommend reapplying a transparent two-component PUR sealer when using very bright or intense color shades from the Brillux Color System, to increase the cleanability and durability of the surfaces.

### Stripping non-intact old coatings

Chemical stripping of non-intact old coatings must be checked with regard to applicable ecological aspects. Two-component coatings are difficult or impossible to chemically strip. Almost all mechanical methods to remove non-intact coatings affect the surface in such a way that additional leveling measures are required. If the substrate is sufficiently strong, we recommend the use of thick-layer two-component floor coatings after removal and preparing the substrate.

### Cleanability of slip-resistant coatings

Slip-resistant coatings increase safety, but are easily soiled due to the increased roughness and are not as easy to clean as smooth surfaces. Using Floortec Safe-Step 841 minimizes the disadvantages of a slip-resistant surface due to the roundness of the glass spheres used.

### Implementation in brilliant and intense color shades

Brilliant, pure intense color shades, e.g. in the yellow, orange, red, magenta and yellow-green range have a low hiding power due to the nature of their pigments. When using critical color shades in these color ranges, we recommend applying a full-covering prime coat in the corresponding base color (Basecode). In addition to the standard coating buildup, additional coats may be required.

### Transparent sealing of colored implementation

For intensely colored shades, pigment loss on the surface is common. This is not a technical/functional defect and does not justify a complaint. Using an additional transparent sealer with Floortec 2K-Purolid T 876, silk matt, or Floortec 2K-Purolid T 877, silk gloss prevents this and the result is easier to clean.

#### **Transparent-sealed surfaces**

Surfaces treated with transparent sealer have the properties of the respective transparent sealer. For use with additional clear sealer, follow the instructions in the clear sealer data sheets.

#### Use and surface stress

Sealers and coatings on floor areas are subject to use-related wear. The specific service life depends primarily on the film thickness and the intensity of the surface stress. In areas with very high traffic, the wear layer should be built up as high as possible and/or a regular resealing is recommended. Abrasive stresses (e.g. from hard chair castors, sand, grit, metal shavings, etc.) can cause light-colored and even whitish scratches and score marks and are detrimental to the appearance. The intensity and visibility of these marks depends on the chosen color shade. The technical functionality of the floor surfaces is not impaired by this

### Surface and use of filled, sealed surfaces

Generally, on filled and sealed surfaces, surface results are achieved which only meet minimal visual requirements. We therefore recommend creating test areas. Filling with a floor leveling compound is solely restricted to accessible areas with a light to medium mechanical load such as that occurring, e.g., in living areas, offices, boutiques, etc. These surfaces must not be exposed to vehicular traffic. We recommend using suitable underlayers, such as polycarbonate protective mats in areas that are subject to chair castor stress. When sealing filled surfaces, the minimum layer thicknesses of the filler must be complied with. On substrates that are not resistant to deformation, e.g., particle boards or mastic asphalt, this kind of build-up is not to be used due to an increased risk of cracking. It is possible for the filled floor surfaces to also exhibit fine pores even after sealing.



#### Notes

Use of office chairs Office chairs must be equipped with soft castors of type W in

accordance with DIN EN 12529.

**Surface protection with**Chairs with broken or missing chair glides as well as unsuitable chair rollers destroy both the surface protection as well as the sealer; their

rollers destroy both the surface protection as well as the sealer; their use must therefore be avoided. The use of suitable chair/furniture glides is strongly recommended (rather than conventional, self-adhesive felt

pads).

Carpets and furniture Do not lay any carpets during the first 14 days. Carefully position the

furniture and other furnishings.

Cleaning and maintenance "Cleaning and Maintenance Instructions 848p" is available as a separate

description for the cleaning and maintenance of sealed floor surfaces.

**Further information** Follow the instructions in the data sheets of the products used.

#### Remark

This data sheet is based on extensive development work and years of practical experience. The translation corresponds to the current German version, in compliance with the German laws, regulations, standards and guidelines. Its content does not constitute a contractual legal relationship. The user/buyer is not released from the responsibility of checking our products to ensure they are suitable for the intended application. In addition, our general terms of business apply.

When a new version of this data sheet with updated information is published, the previous version no longer applies. The current version is available on our website. Version II

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