Data Sheet

Floortec 2K-Purolid F 878

Silk matt, water-dilutable, colored floor sealer
For interior and exterior use, with Floortec PU Hardener 879

Field of application

For colored sealers, suitable for foot and vehicle traffic on mineral floor surfaces subject to high usage in both interior and exterior areas, e.g., in warehouses, basements, 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, concrete, intact epoxy resin, and PU coatings as well as interior plaster in wall areas (compressive strength category CS II, CS III, CS IV with minimum > 2.0 N/mm²) etc. In the system build-up with Floortec 2C Aqua Basis 809, can also be used on calcium sulfate screed (anhydrite flow-screed). Furthermore also suitable as a colored top seal on Floortec 2C Aqua Thick Film 810 and Luxury Vinyl Tiles (LVT) 3055.

Properties

- Water-dilutable
- Very low odor
- Water-vapor-permeable
- Rapid curing
- Very good flow properties and smooth surface
- With good hiding power
- Easy to apply
- Excellent cleanability
- Suitable for chair-caster loads
- Can be combined with Floortec Decochips 843
- Highly resistant to mechanical and chemical stresses
- Resistant to diluted alkaline solutions, weak acids, oils, gasoline, water and aqueous salt solutions (e.g., de-icing salt)
- Resistant to chemicals in accordance with test verification
- Tested in accordance with the requirements of the AgBB evaluation scheme and in accordance with the test certificate, suitable for use with indirect contact with foodstuffs
- Disinfectant-resistant in accordance with the test verification
- Can be decontaminated in accordance with DIN 25415 and in accordance with the test verification
- Tested as a slip-resistant sealer, Slip Resistance Class R 9 in accordance with the test certificate when used as colored top seal

Properties

Tested as a slip-resistant sealer, Slip Resistance Class R 11 in accordance with the test certificate when adding Floortec Safe Step 841

Material description

Standard color shades

Scala	Description
75.03.12	RAL 7035 light gray
84.03.24	RAL 7023 concrete gray

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

Degree of gloss Silk matt

Base material PUR acrylic sealer, two component

VOC EU limit value for this product (Cat. A/j: 140 g/l (2010).
This product contains max. 40 g/l VOC.
The specified VOC value refers to the ready-to-use mixture of base paint and hardener.

Density Approx. 1.29 g/m³

Chair castor stresses in accordance with EN 425 Suitable for chair castors in accordance with DIN 12529, type W (soft)

Packaging 3.5 liters
Color System: 3.5 liters

Floortec PU Hardener 879

Special PU Hardener for mixing with Floortec 2K-Purolid T 876, Floortec 2K-Purolid T 877 and Floortec 2K-Purolid F 878

Field of application

For mixing with Floortec 2K-Purolid T 876, Floortec 2K-Purolid T 877, and Floortec 2K-Purolid F 878.

Properties

Special system hardener. The container size has been adapted to the mixing ratio.

Material description

Color shade Colorless

Base material Aliphatic polyisocyanate

Flash point > +61 °C

Density Approx. 1.09-1.13 g/cm³

Packaging 500 ml
(Base paint and hardener in separate containers)

Use

Mixing ratio

7 parts Floortec 2K-Purolid F 878 to 1 part by volume Floortec PU Hardener 879. This corresponds to about 100 g of base paint : 13 g hardener. Ensure thorough mixing of the two components.

Mixing

Before adding the hardener, thoroughly stir the base material until it is homogeneous. Mix base paint and hardener in the specified mixing ratio shortly before application. Ensure the hardener container is completely emptied without residue. Then pour the mixture into another clean container and stir again thoroughly. Avoid inclusion of air during mixing. Do not mix freshly mixed material with residual material. Absolutely comply with the limited application time (pot life). Stir in additives with Floortec Safe Step 841 after mixing. Do not tightly seal any container containing a mixture of base paint/hardener because such formulations will react to form carbon dioxide gas and thus pose a bursting hazard.

Pre-reaction time

After mixing, allow to pre-react for about 10 minutes.

Thinning

For use with Floortec Safe Step 841 and for priming on absorbent substrates, thin with up to approx. 5% water. In all other application cases, use unthinned.

Adding Floortec Safe Step 841 (optional)

To increase the slip resistance, after mixing in Floortec 2K-Purolid F 878, add approx. 3 wt.% Floortec Safe Step 841, mix thoroughly, and thin with 5% water. To 3.5 liter, add: 4 ½ capfuls of Floortec Safe Step 841 (corresponds to approx. 135 g). The container cap can be used as a metering aid. 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 quantity added. After work breaks, stir the material thoroughly.

Can be used with Floortec Decochips 843 (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 transparent sealer is only possible on smooth floor sealings without the addition of Floortec Safe Step 841. For use with Decochips and transparent sealer, observe the note on “Transparent sealed areas” and follow the instructions in the transparent sealer Data Sheets.

Tinting

Do not tint.

Compatibility

Can only be mixed with materials stipulated in this data sheet.

Use

Application

Pour the freshly mixed floor sealer into a clean container (e.g., a plastic bucket) and apply uniformly, in thin coats, with either brush or roller application using a long-bristle brush or 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 brush marks. If possible, the second coat should be applied on the same day after an adequate drying period (approx. 4 hours). After a drying period of more than 16 hours, intermediate sanding with an abrasive disk for PU coatings is required. To ensure smooth, rapid application, we recommend coordinating the number of employees to the size of the work area before starting. To achieve Slip Resistance R11, apply a top coat of Floortec 2K-Purolid F 878, adding Floortec Safe Step 841. Continue to stir the mixed material thoroughly during application, in order to ensure that Floortec Safe Step 841 is evenly distributed into the material. During application, do not set or press the paint roller against the bottom of the paint vessel.

Pot life (at +20°C)

Maximum 2 hours. 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. 110 ml/m² per coating. Apply in ample, uniform layers. Determine exact consumption by means of a test application on the object to be coated. For a proven, slip-resistant system build-up, comply with the consumption information in accordance with the relevant test verification.

Application temperature

Do not apply at an air, substrate or object temperature below +8°C and above +25°C or in direct sunlight, at high humidity (≥ 80%), rainfall, fog, retained moisture, strong wind, or excessively warm substrates. Take the dew point temperature into consideration. Apply at temperatures at least 3°C above the dew point.

Tool cleaning

Clean tools immediately after use with water and Universal Cleaner 1032.

Drying (+20°C, 65% relative humidity)

Dust dry after approx. 2 hours. Can be exposed to normal walking stress after approx. 24 hours. Fully hardened as well as ready for chemical and mechanical stress after approx. 7 days. To achieve good adhesion without sanding, the next coating build-up with Floortec 2K-Purolid F 878 or a transparent sealer with Floortec 2K-Purolid T 876, silk matt or Floortec 2K-Purolid T 877, silk gloss must take place within 4–16 hours. Longer waiting periods require intermediate sanding. Allow for longer drying time if the temperature is lower and/or the humidity is higher. During the drying and curing phases, ensure proper ventilation. The Blower TG1 1800 can be used to promote the drying process.

Storage

Cool, dry, and frost-free, between +5°C and +35°C in a well-ventilated area. Reseal opened, unmixed containers tightly.

Declaration

Product code

PU50
The information in the current Safety Data Sheet applies.

Coating build-up

Substrate preparation

The substrate must be solid, dry, clean, with good adhesiveness, load-bearing, 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/mm² on average. Depending on the degree of exposure, one of the following minimum substrate strengths is required. For a slight degree of exposure of the surface, e.g., from minor stress or limited vehicle traffic of light vehicles that have soft tires, a strength category of at least CT 30, C 20/25 or CA 30 is required. For a moderate degree of surface exposure, e.g., moderate walking stress, e.g., due to foot traffic and vehicular traffic with cars, a strength category of min. CT 40, C 30/37 or CA 40 is required. 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 flow-screed), 0.5 CM%. Smooth surfaces, e.g., surfaces smoothed with a steel trowel, must be roughened to improve their adhesion. Sand calcium sulfate screed mechanically (grain size 16) and vacuum the surface. Follow the instructions in the Leaflet 7/1990 of the Federal Association. for Screeds and Coverings (BEB). Any dirt, e.g. oils, fats, rubber abrasion, etc., and non-bearing layers, e.g. 1C and non-bearing 2C 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 2C coatings must be cleaned and sanded slightly or matt blasted. All substrates that have been built-up using a system build-up process with scratch, shrink hole, or leveling filling (self-leveling coating) must have this coating removed and be pretreated using the shot blasting method. Fill smaller break-outs and defects in mineral substrate flush with the surface with a mixture of Floortec 2K-Purolid F 878 and Floortec Quartz Sand 1526 that is suitable for filling. Fill larger defects (depth > 5 mm) flush with the surface with the repair mortars of the Brillux concrete protection system. Design Floor Covering 3055 is to be prepared and cleaned before application with Floortec 2K-Purolid F 878. Apply the Deep Cleaner R 3263 diluted with water in a ratio of up to 1:5 and clean the floor after an exposure time of 10–15 minutes using a rotary disk machine with an abrasive disk for PU coatings, 3694.0400.0002. For Design Floors with a textured surface, also work with a scrub brush to remove stubborn stains in the indentations. Remove the cleaning waste water with a suitable wet vacuum cleaner. Then neutralize the floor surfaces with clear water until all the cleaning agent residue has been completely removed, using a rotary disk machine with an abrasive disk for PU coatings, 3694.0400.0002 (max. 50 m²/pad side), i.e. there is no more foam. Once again thoroughly vacuum with a suitable wet vacuum cleaner and allow the surfaces and joint areas to dry. The Blower TG1 1800 can be used to promote the drying process. This measure allows the surfaces to become matt, existing scratches are leveled out, and an optimum adhesion of the subsequent sealing is ensured. See also VOB Part C, DIN 18363, Section 3.

Coating build-up

Standard system build-up, Floortec 2K-Purolid F 878, Slip Resistance R 9 in accordance with IFA test certificate

Substrates	Prime coat	Intermediate coat	Top coat [1)]
Untreated, normally absorbent floor surfaces, interior, e.g., concrete and screed surfaces	Floortec 2K-Purolid F 878, diluted up to 5%, or Floortec 2C Aqua Basis 809, 1:1 water-diluted	Floortec 2K-Purolid F 878	Floortec 2K-Purolid F 878
Untreated, highly absorbent floor surfaces, interior	Floortec 2C Aqua Basis 809, 1:2 diluted with water		
Untreated, absorbent floor surfaces, exterior, e.g., concrete and screed surfaces	2K-Aqua Epoxy Primer 2373		
Untreated, non-absorbent or slightly absorbent floor surfaces, e.g., compacted concrete and screed surfaces, exterior and interior			
Calcium sulfate screed (anhydrite flow-screed), interior	Floortec 2C Aqua Basis 809, 1:1 water-diluted		
Intact, rigid 2C coatings, exterior and interior	If required, treat raw areas with Floortec 2K-Purolid F 878, up to 5% diluted		
Stripped floor surfaces, exterior and interior	2K-Aqua Epoxy Primer 2373		

[1)] For alternative surface design, Floortec Decochips 843 can also be applied in the subsequent transparent sealer.

Coating build-up

Standard system build-up, Floortec 2K-Purolid F 878, Slip Resistance R 11 in accordance with IFA test certificate

Substrates	Prime coat	Intermediate coat	Top coat [1)]
Untreated, normally absorbent floor surfaces, interior, e.g., concrete and screed surfaces	Floortec 2K-Purolid F 878, diluted up to 5%, or Floortec 2C Aqua Basis 809, 1:1 water-diluted	Floortec 2K-Purolid F 878 Consumption: Approx. 110 ml/m²	Floortec 2K-Purolid F 878, 5% diluted with water, adding 3 wt.% Floortec Safe Step 841, Consumption: Approx. 110 ml/m²
Untreated, highly absorbent floor surfaces, interior	Floortec 2C Aqua Basis 809, 1:2 diluted with water		
Untreated, absorbent floor surfaces, exterior, e.g., concrete and screed surfaces	2K-Aqua Epoxy Primer 2373		
Untreated, non-absorbent or slightly absorbent floor surfaces, e.g., compacted concrete and screed surfaces, exterior and interior			
Calcium sulfate screed (anhydrite flow-screed), interior	Floortec 2C Aqua Basis 809, 1:1 water-diluted		
Intact, rigid 2C coatings, exterior and interior	If required, treat raw areas with Floortec 2K-Purolid F 878, up to 5% diluted		
Stripped floor surfaces, exterior and interior	2K-Aqua Epoxy Primer 2373		

Coating build-up

System build-up Floortec 2K-Purolid F 878 with scratch, hole or leveling filling for surfaces open to traffic, interior

Substrates	Prime coat	Filling [1]	Intermediate coat	Top coat
Untreated, normally absorbent floor surfaces, interior, e.g., concrete and screed surfaces	Floortec 2C Aqua Basis 809, 1:1 water-diluted	Scratch, hole or smoothing filling with Floortec 2C Aqua Basis 809, 1:1 with Floortec Quartz Sand 1526	Floortec 2K-Purolid F 878	Floortec 2K-Purolid F 878 [2]
Untreated, highly absorbent floor surfaces, interior	Floortec 2C Aqua Basis 809, 1:2 water-diluted			
Calcium sulfate screed (anhydrite flow-screed), interior	Floortec 2C Aqua Basis 809, 1:1 water-diluted		Floortec 2K-Purolid F 878 Consumption: Approx. 110 ml/m²	Floortec 2K-Purolid F 878, 5% diluted with water, adding 3 wt.% Floortec Safe Step 841, [3] Consumption: Approx. 110 ml/m²

[1] Do not sand filled surfaces. Follow the instructions in the Floortec 2C Aqua Basis 809 Data Sheet.
[2] In the standard system build-up, Slip Resistance R 9 in accordance with the IFA test certificate.
[3] In the system build-up, Slip Resistance R 11 in accordance with the IFA test certificate.

System build-up Floortec 2K-Purolid F 878 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 2C Aqua Basis 809, 1:1 water-diluted	Floortec 2K-Purolid F 878	Floortec 2K-Purolid F 878 [2]
		Floortec 2K-Purolid F 878 Consumption: Approx. 110 ml/m²	Floortec 2K-Purolid F 878, 5% diluted with water, adding 3 wt.% Floortec Safe Step 841, Consumption: Approx. 110 ml/m²

*) Only for surfaces subject to foot traffic in interior areas. Follow the instructions on “Surface and use of filled, sealed surfaces”.
[1] The surfaces are to be sanded and thoroughly vacuumed prior to the coating build-up, with a disc grinder, grain size P 120. Follow the instructions in the Floor Leveling Compound 3115 and Floor Leveling Compound FX 3109 Data Sheets.
[2] In the standard system build-up, Slip Resistance R 9 in accordance with the IFA test certificate. For alternative surface design, Floortec Decochips 843 can also be applied in the subsequent transparent sealer.
[3] In the system build-up, Slip Resistance R 11 in accordance with the IFA test certificate.

Notes

Contiguous surfaces	Only seal contiguous surfaces with material from the same batch. Apply the coats uniformly to achieve a surface that has a uniform color shade and degree of gloss.
Take the dew point temperature into consideration	If the dew point temperature limit is disregarded (especially during the hot summer months), e.g., in cellar rooms and garages, patches of varied gloss may occur as a result of inadequate de-aeration and ventilation. For this reason, ensure proper ventilation during application and drying. 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 sealer's color. Abrasive stresses may result in scratches on 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 sealer's color.
Stripping non-intact old coatings	The stripping of non-intact old coatings must be checked with regard to ecological issues. 2C coatings are difficult or impossible to strip. Nearly all mechanical methods for removing non-intact coatings change the surface such that additional compensatory measures are required. If the substrate is sufficiently stable, we recommend the use of thick-layer 2C floor coatings after removal and preparation of the substrate.
Ability to clean slip-resistant surfaces	Slip-resistant surfaces increase safety, but are easily soiled due to the increased roughness and are not as easy to clean as smooth surfaces. When using Floortec Safe Step 841 the disadvantages of a slip-resistant surface are minimized, due to the roundness of the glass spheres.
Implementation in brilliant and intense color shades	Brilliant, pure intense color shades, e.g. in the yellow, orange, red, magenta and yellow green spectrum have a lower hiding power due to the pigment used. For critical color shades, we recommend applying a full-covering base coat in these areas in the corresponding base color shade (Basecode). In addition to the standard coating buildup, additional coats may be required.
Transparent sealer	Surfaces treated with transparent sealer have the properties of the respective transparent sealer. For use with additional transparent sealer, observe the note on "Transparent sealed areas" and follow the instructions in the transparent sealer Data Sheets.

Notes

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. 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 laying out suitable protective underlays, e.g., polycarbonate mats, in areas where castor wheels are used. 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, an alternative sealer cannot 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.
Use with disinfectant	If object-specific resistance to disinfectants is required, we recommend performing appropriate preliminary tests with the compounds used on site. For questions relating to this, contact the Brillux Consulting Service.
Use of office chairs	Office chairs must be equipped with soft castors of type W in accordance with DIN 68131.
Surface protection with chair/furniture glides	Chairs with broken or missing chair glides as well as unsuitable chair rollers destroy both the surface protection as well as the sealer, their use must therefore be avoided. The use of suitable chair/furniture glides (not simply, self-adhesive felt pads) is strongly recommended.
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 878p” is available as a separate description for the cleaning and maintenance of sealed floor surfaces.
Further information	Follow the instructions on 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.

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