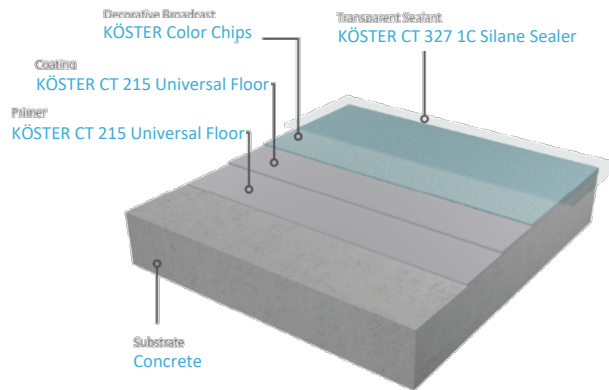


KÖSTER Universal Floor System

Highly versatile, multi-purpose scratch-resistant primer, coating, and sealing system for light to medium chemical and mechanical loads on wall and floor surfaces

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Installation example

System Data Sheet

Properties and areas of application

The KÖSTER Universal Floor System is an easy to apply coating and sealing system for mineral substrates for light to medium mechanical and chemical stresses in commercial and private real estate.

Light stresses are e.g. when used in a storage room. Medium stresses arise e.g. when loaded with forklifts or pallet trucks, driving in private garages or the effects of de-icing salt from vehicles.

As a water-based epoxy resin, KÖSTER CT 215 Universal Floor is also suitable for coating damp substrates without determining the residual moisture.

Through the use of KÖSTER Color Chips in contrast and rejection broadcast and the incorporation of KÖSTER Anti-Slip Granulate 20, a wide variety of individual surface structures and designs can be achieved compliant with the various guidelines of professional associations.

When applied outside, the KÖSTER CT 215 Universal Floor must be fully broadcasted to rejection and sealed.

On light stressed applications, KÖSTER CT 327 1C Silane Sealer, a one-component, water vapor permeable, solvent-free, UV-stable, transparent cover sealant can be applied over KÖSTER Color Chips or other broadcast surfaces. By medium stresses, the two-component sealant KÖSTER TS Transparent must be used. Both sealants are UV stable, transparent, and glossy.

Alternatively, the matt sealant KÖSTER Top Coat 1C Matte can also be used.

System components

KÖSTER CT 215 Universal Floor

is a solvent-free, water-based epoxy resin with a silky matt surface appearance. In addition to the standard colors, a large variety of colors are available upon request starting from 10 kg.

KÖSTER Filler Fine

Is a filler with a special grading curve to achieve layer thicknesses of up to 2 mm in the KÖSTER CT 215 Universal Floor System.

KÖSTER Anti-slip Granulate 20

Special polymer granulate to increase the slip resistance of top coats.

KÖSTER Color Chips

Are suitable for the surface design of water based and low-solvent resin coatings due to their good UV and chemical resistance. Aside from the four standard colors they are available in a large variety of colors.

KÖSTER CT 327 1C Silane Sealer

Is a single component, solvent-free, UV-stable, transparent silane sealant for light stresses.

KÖSTER TS transparent

Is a two-component, solvent-free, UV-stable and transparent sealant for medium loads



KÖSTER Top Coat 1C Matte

Is a matte, transparent, one-component, water-based PU sealant for broadcast or smooth coatings.

Substrate

Suitable substrates include concrete and screed as well as mineral plasters. The substrates must be free of laitance, dust, oils and greases. Damp substrates are suitable for coating, however there must be no permanent moisture acting on the back, e.g. in the form of pressurized water. The surface must be prepared by suitable means (preferably shotblasting, milling or grinding). The substrate must have a minimum adhesive tensile strength of 1.5 N / mm².

Defects and minor breakouts in horizontal and slightly inclined substrates can be closed in advance with a mixture of KÖSTER CT 215 Universal Floor and KÖSTER Filler Fine in a mixing ratio of at least 1 : 5. A stiff material is created from the mixture.

Excessive surface roughness is leveled out with KÖSTER self-leveling materials such as KÖSTER SL Premium. See the Technical Data Sheets for KÖSTER self-leveling floors. Floor and room temperature should be between +10 °C and +25 °C during processing and curing. During processing, a minimum temperature difference of +3 °C to the dew point must be maintained (see the KÖSTER dew point table).

Application

Priming

The material should be brought to at least +15 °C. Mix the CT 215 Universal Floor components (A and B) with an electrical mixer below 300 rpm for at least 2 minutes until a homogeneous consistency is achieved. The KÖSTER Resin Stirrer is suitable as a mixing attachment for good mixing results. Component A of the KÖSTER CT 215 Universal Floor must be stirred before adding the B component. While mixing, unmixed components must be scraped from the mixing container walls. To avoid mixing errors the material is re-potted and mixed again. Re-potting ensures container build-up is thoroughly mixed into the Material.

After mixing the components A and B, KÖSTER CT 215 Universal Floor is diluted with 10 - 25 mass % of clean tap water. The material is applied to the substrate using a KÖSTER Resin Roller. In the case of highly absorbent and open-pored surfaces, less water should be added. If possible, check the absorbency before starting work.

In order to avoid material accumulation, the primed surface is immediately back-rolled in two directions. Avoid puddling. Spray application is possible on vertical surfaces.

Leveling / self-leveling flow coat

After earliest 4 but no later than 24 hours after application of the primer, the KÖSTER Universal Floor System can be applied. While constantly stirring the mixed and re-potted KÖSTER CT 215, KÖSTER Filler Fine is added in a mixing ratio of 1:1. Container buildup must be thoroughly mixed into the Material. To increase the flowability, 5 mass % of pure tap water is immediately added to the finished mixture and mixed until homogenous. With 10 kg KÖSTER CT 215 and 10 kg KÖSTER Filler Fine is therefore 1 l clean tap water is added.

Distribute the Material on the surface and spread using a toothed trowel accordingly to the desired layer thickness of the coating. The layer thickness depends also on the distribution speed of the toothed trowel and the viscosity of the material. At an average speed, the following layer thicknesses can be achieved:

With the toothed gauge S6 approx. 1.0 mm, an S4 approx. 1.6 mm and a S2.66 approx. 2.0 mm. (For details, see the Tools section). The toothed gauge can be used with a quick hand trowel for application on detail areas or with a surface squeegee for larger areas.

For optimal de-airing and to increase flowability, the coating is immediately back-rolled with a metal spiked roller in two directions. When processing several containers, the amount of water to be added must be precisely adhered to. Different amounts of water can lead to differences in color. Ensure sufficient ventilation of the coated surface after processing to allow proper curing.

Contrast or full surface broadcast with KÖSTER Color Chips

KÖSTER Color Chips are broadcast onto the fresh coating as contrast (from approx. 50 g/m²) or to rejection (0.7 – 1.0 kg/m²). In the case of full-area broadcast with KÖSTER Color Chips, the excess is removed from the surface with a stiff broom. When applied outside, the KÖSTER CT 215 Universal Floor must be fully broadcasted to rejection and sealed with a transparent sealant.

Before vacuuming, we recommend intermediate sanding with 120 grit sandpaper to homogenize the surface or breaking protruding peaks of the Color Chips with a clean smoothing trowel or a metal scraper.

Excess broadcast material that does not adhere to the substrate is removed with an industrial vacuum cleaner after the coating has hardened. The clean, collected KÖSTER Color Chips can be re-used for further coating work.

In fully broadcast systems, the color and pattern effect is influenced by the base color, the respective layer thickness, and the sealing. Preliminary tests should be carried out.

Broadcast with other materials

If colored quartz or kiln-dried quartz sand is used for broadcasting (the suitability of the broadcasting materials used must be given), the surface must be covered with a



sealant. The sealant is applied over the surface and distributed with a KÖSTER Rubber Squeegee. Afterwards it is back-rolled crosswise with a KÖSTER Resin Roller.

Pigmented coating

KÖSTER CT 215 Universal Floor is applied to the surface immediately after mixing, (after 4 hours but no later than 24 hours after application of the primer or the leveling coat) with a KÖSTER Resin Roller. The instructions for mixing KÖSTER CT 215 Universal Floor as described in the Primer section apply. The addition of water or solvents is not permitted in this case!

On even surfaces, the material is spread evenly over the surface with a KÖSTER Resin Roller and then carefully back-rolled in two directions. The sealant is distributed over broadcast surfaces with a KÖSTER Rubber Squeegee and then back-rolled.

The coated surface must be adequately ventilated during the curing phase of KÖSTER CT 215 Universal Floor to dissipate the water vapor emerging from the coating and thereby prevent color shading.

Without the addition of KÖSTER Anti-Slip Granulate 20, a tested slip resistance class of R 10 is achieved. To achieve a tested slip resistance of class R11, 2 M% (20 g / kg). KÖSTER Anti-slip Granulate 20 is mixed into the material after mixing the A and B components. After drying, the pigmented sealant with KÖSTER Anti-Slip Granulate 20 is finished.

Depending on the composition of the coating, the slip resistance class R12 can be achieved (test procedures / principles according to DIN 51130 (2014-02) and DGUV rule 108-003 (formerly BGR 181 and GUV-R 181)). For possible compositions consult the KÖSTER Technical Department.

Transparent sealing with KÖSTER CT 327 1C Silane Sealer, KÖSTER TS Transparent, or KÖSTER Top Coat 1C Matte

KÖSTER CT 327 1C Silane Sealer is used for light stress requirements, and KÖSTER TS Transparent for medium ones. Both materials are glossy. KÖSTER Top Coat 1C Matte is used as a matt sealant for light resistance requirements.

The transparent sealant is absolutely necessary in the case of a contrast or full surface broadcasting with e.g. KÖSTER Color Chips. The application takes place after complete curing of the KÖSTER CT 215 Universal Floor, but no later than after 24 hours.

The material is usually applied in one layer. When applying KÖSTER Top Coat 1C Matte, two coats are absolutely necessary. On smooth surfaces, the material is evenly distributed with a KÖSTER Resin Roller and then carefully back-rolled crosswise. The sealant is distributed over rough or broadcast surfaces with a KÖSTER Rubber Squeegee and then back-rolled.

In the case of surfaces broadcast with quartz sand or colored quartz, the consumption depends on the roughness of the surface, e.g. depending on the largest grain size of the broadcasted material from 0.5 – 0.8 kg/m².

In case two sealant layers need to be applied, the second layer must be applied within 24 hours of the first one. When two layers are needed, the first one serves to lock the KÖSTER Color-Chips into the coating system. The second layer can then be enhanced with the KÖSTER Anti-Slip Granulate 20 to achieve a required slip resistance. A maximum of 2 layers are allowed. The use of different sealants is not recommended.

The consumption on smooth surfaces and with KÖSTER Color-Chips broadcasted areas is approx. 0.1 kg / m² per layer.

We recommend wearing KÖSTER Spiked Shoes when applying the material.

When applying KÖSTER TS Transparent, the room or ambient temperature must be during and for a min. of 4 hours after the installation at least +3 °C above the dew point.

Packaging

KÖSTER CT 215 Universal Floor

- 10 kg Combi-package
- 3 kg Combi-package (only the 3 basic colors)

KÖSTER Color Chips

- 5 kg Package (multiple colors)

KÖSTER Filler Fine

- 20 kg Bag

KÖSTER CT 327 1C Silane Sealer

- 5 kg Package

KÖSTER TS Transparent

- 6 kg Combi-package

KÖSTER Top Coat 1C Matte

- 5 kg package

KÖSTER Anti-slip Granulate 20

- 0.2 kg package

Consumption

KÖSTER CT 215 Universal Floor

Priming: approx. 0.2–0.3 kg/m²

Levelling coating: approx. 1 kg / m² /

mm layer thickness plus 1 kg / m² /

mm KÖSTER Filler Fine (2 kg mixed material / m² = 1 mm Layer thickness)

Colored coating/Sealant:

approx. 0.2–0.3 kg/m²





KÖSTER Filler Fine (according to need):

Filler: approx. 1.0 kg per 1.0 kg
KÖSTER CT 215 Universal Floor



KÖSTER Color Chips

Contrast broadcast: from 50 g/m²

(Depending on coverage degree)

Full broadcast to rejection:

approx. 0.7–1.0 kg/m²



KÖSTER Anti-slip Granulate 20:

For slip resistance: approx. 2.0 M %
of binder KÖSTER CT 215 Universal
Floor



KÖSTER CT 327 1C Silane Sealer

Transparent sealant for light

stresses: approx. 0.1 kg/m² per layer



KÖSTER TS Transparent

Transparent sealant for medium

stresses: approx. 0.1 kg/m² per layer



KÖSTER Top Coat 1C Matte

Transparent, matt sealing for light

loads (two layers required):

approx. 0.1 – 0.2 kg/m² per

operation



Tools

CT 913 KÖSTER Resin Roller 10 cm / 15 cm / 25 cm

IN 988 KÖSTER Resin Stirrer 100 mm

IN 989 KÖSTER Resin Stirrer 75 mm

CT 921 KÖSTER Rubber Squeegee blue, medium, 60 cm

CT 922 KÖSTER Rubber Squeegee red, medium, 60 cm

CT 923 KÖSTER Spiked Shoes (size 44-48 EU)

CT 924 Toothed trowel 28 cm, gauge S2.66 mm

(Spec.: H = 6.6, L = 8.2, S = 0.5)

CT 926 Toothed trowel 28 cm, gauge S4

(Spec.: H = 5.1, L = 10.3, S = 0.2)

CT 932 Toothed trowel 28 cm, gauge S6

(Spec.: H = 3.4, L = 4.2, S = 0.2)

Spec. = H = height, L = width, S = tip

CT 931 Fast Trowel for 1 toothed trowel

CT 927 Standing Squeegee with handle holder for 2
toothed trowels

CT 929 Spiked Roller (metal spiked roller)

50 cm, spike length 30 mm, 0.4 mm

CT 930 Roller Bracket for spiked rollers

Other tools and accessories:

Dew point measuring device, stirrer, material container,
etc.

Cleaning of Tools

KÖSTER CT 215 Universal Floor
Immediately after use with clean water

KÖSTER CT 327 1C Silane Sealer
Immediately after use with KÖSTER Universal Cleaner

KÖSTER TS transparent / KÖSTER Top Coat 1C Matte
Immediately after use with KÖSTER PUR Cleaner

Storage

Store all system components dry and frost free in
originally sealed packages at temperatures between + 5
°C and + 25 °C.

KÖSTER CT 215 Universal Floor	min. 12 months
KÖSTER Filler Fine	min. 2 years
KÖSTER Anti-Slip Granulate 20	min. 2 years
KÖSTER Color-Chips	min. 2 years
KÖSTER TS transparent	min. 1 year
KÖSTER CT 327 1C Silane Sealer	min. 6 months
KÖSTER Top Coat 1C Matte	min. 12 months

Safety

Wear protective clothing, gloves and goggles during
processing and application of the Material. Observe all
local, state, and national safety guidelines.

KÖSTER TS Transparent and KÖSTER CT 327 1C Silane
Sealer contain di-isocyanates. According to EU Chemicals
Legislation (REACH), Regulation 1907/2006, Annex XVII,
for the use of this product training for commercial and
industrial users on the safe use of di-isocyanates is
required from August 24, 2023. Training materials can be
accessed at <https://safeusediisocyanates.eu/>. Work
clothing that covers the arms and legs or a protective suit
must be worn. Hats or hoods must be worn when working
in confined spaces or in "overhead areas". Wear suitable
protective gloves (e.g. nitrile gloves) and safety glasses.

Notes

Liquid polymers react to temperature fluctuations by
changing their viscosity and/or curing behavior.
Application should only be carried out during falling or
constant temperatures. Low temperatures will slow the
reaction; high temperatures and mixing large volumes will
increase the reaction rate. Protect the coating from
moisture of all kinds during application and curing.

Before as well as during application and hardening
process, a minimum distance of +3 °C to the dew point
must be maintained (see the KÖSTER dew point table).

In the event of contact with tires, depending on the tire
manufacturer's rubber compound and specific
conditions, possible discoloration of the coating cannot
be completely ruled out.



The containers should be stored “upside down” after opening in order to minimize the penetration of moisture into the container. Containers must be closed immediately after partial removal. The container lids of two-component systems must not be swapped after partial removal!

Disclaimer

The information in the latest version of the technical data sheets must be observed. See the QR code or www.koester.eu.

Standard colors KÖSTER CT 215 Universal Floor



approx.
RAL 7030
Stone grey



approx.
RAL 7032
Pebble grey



approx.
RAL 7035
Light grey

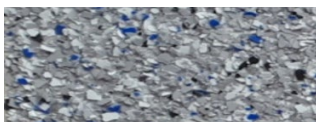
Selected colors KÖSTER Color Chips



CT 429 001
5 kg
(white, light grey, grey)



CT 429 002
5 kg
(black, grey)



CT 429 003
5 kg
(black, grey, blue)



CT 429 004
5 kg
(white, beige, brown)

Color examples shown are approximate