

## A GUIDE FOR YOUR CONTECO PROJECT



### THANKS FOR CHOOSING CONTECO FOR YOUR PROJECT!

This is your Conteco guide, which will help you get the best possible outcome from your project. For further information, please check out our FAQs and instructional videos at www.conteco.dk. If you have any doubts whatsoever along the way, please don't hesitate to send us an email at info@conteco.dk and we will get back to you as soon as we can.

Best of luck with your project!

Kind regards, The Conteco Team

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### WHAT YOU NEED

- A trowel made from steel or plastic, or a rubber spatula
- A pair of work gloves
- A dust mask
- A drill
- A drill mixer / whisk
- A bucket for mixing
- A water atomizer
- Masking tape
- Sanding cork and sandpaper
- A short-hair gloss roller (if applicable)
- A paintbrush (if applicable)

For MK/ETA-approved wet room waterproofing and the renovation/ construction of wet rooms, you will also need:

- Ardex 7+8 adhesive
- Ardex SK100W sealing membrane
- Waterproofing pad, corners and sealing tape
- Ardex P51 primer
- Installation tools

In both cases, products for preparatory work should be selected based on the surface in question.

### **GETTING THE LOOK YOU WANT**

Conteco allows you to create the exact look that you want for your project. The final appearance of the surface will depend a great deal on what tool you use. If you use a steel trowel, then you will work towards a "flamed" look with nice contrasting colors. Using a plastic trowel, on the other hand, will give you a more uniform finish. You can also add extra water to the surface during application in order to increase the degree of contrast and interplay between colors on the surface.

#### Building up the layers

This will depend on your specific project and the kind of surface you want. If you use Conteco Medium as your last layer of concrete, then you will end up with a rough surface, while Conteco Fine will give you a smoother surface. See page 11 for information on how to build up the layers in your specific project type.

#### **Mixing colors**

The color of your Conteco will depend on how much Conteco Color Pigment is added during the mixing stage. We recommend using a kitchen scale in order to measure out the pigment weight precisely as even the slightest difference in weight can have an impact on the color of the finished surface.

**Note:** Even if it may not seem like much, Conteco Color Pigment will color through the mixture when in contact with Conteco Mix & Primer. It is therefore important to stick to the weight indicated. Conteco Color Pigment should be added to all of the concrete layers.

#### **Mixing Conteco**

The method is the same for Conteco Basic, Conteco Medium and Conteco Fine.

#### See mixing ratios and consumption on page 10.

Conteco should always be weighed out in accordance with the number of square meters being treated and mixed in line with the ratios given.

Shake Conteco concrete and add the amount of Conteco Color Pigment needed for the shade you want. Stir the mixture thoroughly with a drill mixer until the powder has been completely evened out.

Shake Conteco Mix & Primer and pour it into a bucket before then adding the mix of Conteco concrete and Conteco Color Pigment. Stir vigorously with a drill mixer until all lumps are gone. The mixture should be relatively fluid.

#### **Mixing Conteco Concrete Sealer**

Mix Conteco Concrete Sealer together with crosslinker. Shake the mixture thoroughly and leave it to rest for ten minutes before then pouring it through a sieve. The mixture will then be ready for use.

**Note:** Conteco Concrete Sealer must be used within two hours of mixing.

#### Color pigment needed per kg of concrete powder in order to create the following shades

- Concrete Light = 1 gram
- Concrete Medium = 2 grams
- Concrete Intense = 3 grams
- Charcoal Light = 10 grams
- Charcoal Medium = 15 grams
- Charcoal Intense = 20 grams
- Peach = 5 grams
- Dusty Rose = 5 grams
- Icy Waters = 5 grams
- New Pine = 5 grams
- Desert Sand = 5 grams
- Olive Tree = 5 grams
- Lemon Tea = 5 grams

The Concrete/Charcoal color pigment is used for all grey colors. Other colors have their own pigment.

If you want a stronger color, then additional pigment can be added (up to a maximum of 50 grams per kg). This can be purchased separately in our webshop.

# PREPARING THE SURFACE

Any underfloor heating should be switched off at least 12 hours before you get started.

Any silicone or rubber joints should be removed. Panels and floors should be covered. It is important that any areas of unevenness are levelled out beforehand given that Conteco is added in very thin layers. The surface should be even and uniformly absorbent. If you are in any doubt about this, then you should always begin by priming the surface. You will always need to prime the surface when it comes to untreated wood, MDF, felt, poured concrete or cast concrete, but it may also be necessary on other surfaces as well.

When applying to tiles, these should be thoroughly levelled and primed before Conteco is applied. This is to ensure an even surface with a uniform and minimal absorbency. You can find all the products you will need to prepare your surface and more in our web shop. Always read the manufacturer's instructions for all products before beginning your project.

If you are going to use Conteco on wooden floors, we recommend first stabilizing the floor by using floor panels and reinforcement tape as necessary, levelling the joints and full-surface gluing vinyl to the floor. Instead of using vinyl, you can also use a fiberreinforced liquid levelling compound and primer as an alternative.



### **APPLYING CONTECO**

Once the surface is ready, mix Conteco for the first layer (see the section entitled "Mixing Conteco" on page 5).

Apply the first layer using your choice of tool in accordance with the look you want to create. On horizontal surfaces, pour out Conteco in small portions and spread it out into a thin layer (approx. 0.3–0.5 mm). When applying Conteco to vertical surfaces with a trowel, it can be advantageous to use a plastic cup or similar to lift up the concrete mixture from the bucket and onto the trowel.

**Note:** If black lines or dots appear on the surface immediately, this is because the pigment has not been mixed in sufficiently. You should correct this while the surface is still wet by running over the dots/lines repeatedly with your trowel in order to "massage" the pigment into the concrete.

Sand the layer with sandpaper (min. 150 grit) before going on to apply the next layer. This should be done just after the surface has dried as ordinary sandpaper cannot be used on hardened Conteco. Drying time is 45–60 minutes per layer at room temperature (21–23 °C, 50% humidity).

**Note:** If joints or lines from the surface show through the first layer (but cannot be felt), it will rarely help to apply more Conteco. If this happens we recommend priming with a concrete primer (e.g. Ardex P51 with a ratio of 1:1) before going on to apply the subsequent layers. If you do this, then you should not water the surface before adding the next layer.

The subsequent layers can now be mixed and applied in the same way as the first layer. See the back of this guide for information on how to build up the layers in your project. Remember that the concrete surface must always be sanded and watered using a water atomizer before the next layer of concrete is applied. This will ensure optimal adhesion for the subsequent layer. Once the last layer of concrete is workable, then it too should be sanded in order to attain the best possible result. We also recommend removing the masking

tape in order to create a sharp edge. If the tape has become hardened in, then cut it free with a utility knife. New tape should be added before the final layers are applied.

Once you have attained your desired result and everything has dried (recommended drying time is a minimum of 12 hours in normal humidity), the surface should then be treated with Conteco Color Sustainer, which should be rolled over the surface in a thin layer using a short-hair gloss roller. Alternatively, the product can be massaged into the surface using a microfiber cloth. Be careful to avoid any running streaks as these will leave permanent line marks on the surface. We always recommend applying Conteco Color Sustainer from the bottom up on vertical surfaces. Conteco Color Sustainer has a drying time of approximately 60–90 minutes.

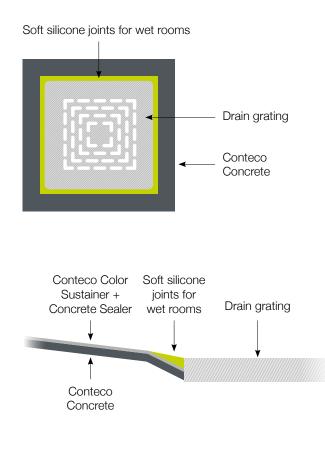
As the final layer, the Conteco surface should be sealed using Conteco Concrete Sealer, which will make the surface water-repellent and resistant to grease and cleaning detergents. Conteco Concrete Sealer should be applied liberally using a short-hair gloss roller (total 200 ml per m<sup>2</sup>). It is important that you always have an ample amount of product on the roller in order to ensure the surface is sealed correctly. We always recommend applying Conteco Concrete Sealer from the bottom up on vertical surfaces and that you apply it in all directions. Once the first layer has dried (approx. 45–60 minutes at a room temperature of 21–23 °C and 50% humidity) and the milky white surface has disappeared, apply another layer using the same quantity of the product. Continue until the correct amount has been applied. As it can be difficult to apply all 200 ml per m<sup>2</sup> in two layers, you can apply it over multiple layers in order to ensure that the surface is sealed completely.

**Note:** Conteco Concrete Sealer must be used within two hours after the product is mixed with cross-linker. Remove the last of the masking tape as soon as the milky white surface has disappeared and the floor can be walked on.

### Conteco on existing wet room waterproofing

When applying Conteco in bathrooms with an existing surface (i.e. tiles), you should first make a chamfered edge to the existing drain grating before applying Conteco Concrete Sealer. Then apply Conteco Concrete Sealer tightly down towards the drain and close off with a wet room joint in order to ensure that the surface is tightly sealed.

#### Example:



### For MK/ETA-approved wet room waterproofing with Conteco

In order to use Conteco in the complete renovation or new construction of bathrooms, it is a requirement that the Conteco system is used together with a wet room membrane from Ardex (7+8 adhesive and SK100W sealing membrane, etc.) as this is the one and only combination which has been granted MK/ETA approval from ETA Denmark. We always recommend using a VA-approved drain with clamping ring whenever Conteco is being used in the construction of new bathrooms. The VA approval for the floor drain used must state that the drain is approved for use in floors with a waterproof layer made from foil. This is because this type of drain can pull the membrane down into the drain and clamp it into place, thereby ensuring a completely tight connection.

- Before you get started, it is important to make sure that the surface is dry, secure, stable, durable and free from parting agents. Underfloor heating should be switched off at least 12 hours before you get started. Ardex 7+8 adheres to most surfaces. Always read the instructions provided by Ardex before getting started.
- 2 The Ardex STA self-sealing waterproofing pad should be applied tightly over the drain so that it follows the surface. The drain should then be cut free.
- 3 Ardex 7+8 should be mixed together vigorously until it has a sticky consistency. See the mixing ratio on page 10. You should only mix up the amount of waterproofing adhesive that can be applied within the space of 15 minutes.
  - Corners, sealing tape and sleeves are adhered together in a single layer of waterproofing adhesive. A small paint roller should be used to apply the waterproofing adhesive and a small trowel should be

used to press the components firmly into place. Take care to ensure that the backs of the waterproofing components are completely covered by waterproofing adhesive and that any air bubbles are squeezed out completely.

- Waterproofing adhesive should then be applied to the rest of the areas using a 3 mm toothed trowel in the case of even surfaces or a 4 mm toothed trowel in the case of uneven surfaces. Once the adhesive has been applied, fix the Ardex SK100W sealing membrane carefully into place with your fingers so that there is a 5 cm overlap in the joint between the sealing membranes. Then use a plastering trowel to fix the membrane into place and remove any air bubbles. Take extra care around joints and transitions. When mounting the membrane onto the floor, it is important that you push "away" from the drain so that adhesive does not run down into it.
- Roll out a thin layer of waterproofing adhesive at all edges and joints for extra protection. Then use a small trowel to carefully smooth over the surface so that it is evened out. Once the membrane has been fixed in place, cut the drain free and screw it into place. Remember to make sure that the membrane goes all the way down into the drain and that it is tightly sealed. After approximately two hours, sand the adhesive with sandpaper in order to get an even surface.
- Finally, we recommend priming all surfaces with Ardex P51 (mixed in a ratio of 1:1 with water) in order to ensure uniform absorption. This will help avoid any lines or color differences from occurring in the finished concrete layer. The surface is now ready for the application of Conteco in accordance with the above directions.

For more information about the Ardex wet room system, refer to the data sheet produced by the manufacturer.

# BEFORE USING THE SURFACE FOR THE FIRST TIME

How long it will take for the surface to be ready for use will depend on the specific project in question. In the case of a standard floor, you will be able to use it after just 24 hours.

However, we recommend taking care around the floor for the first seven days as it is only after this period of time that it will be fully hardened. For Conteco that is used in bathrooms and on countertops, it is important to wait at least seven days before putting the surface into use. The surface must not come into contact with liquid for a period of seven days. This applies to the use of baths, countertops, the cleaning of surfaces, floor cleaning, etc. If any liquid is spilt on the surface before seven days have passed, then it must be removed immediately.

After seven days have passed, a joint should be applied along adjacent surfaces and around drains.

**NB!** In the case of showers, shampoo bottles and similar items must not be left on the floor as the bottoms of these products can produce a vacuum effect which encapsulates moisture and may result in discolorations.

**NB!** If you find that dark patches begin to appear on the surface after use, please contact Conteco with pictures and a description of your project before

continuing use. This may be due to improper sealing and continued use may result in permanent moisture stains on the surface.

#### Acceptance criteria:

Conteco is designated as a design floor – a common designation for joint-free cement-based floors. This type of floor places high demands on its underlying floor surface and experience shows that any surface problems are often attributable to problems with the underlying floor. The finished floor should, just like any other floor, be inspected at eye level and in natural daylight.

### The acceptance criteria for a design floor include:

- Pin holes and smaller blisters may appear on the surface and must be accepted at a rate of up to five occurrences per every 10 m<sup>2</sup>.
- Shrinkage cracks and color differences are to be expected and must be accepted.
- Transitions must be accepted in connection with any repairs or subsequent levelling.
- Roller marks may appear in Conteco Concrete Sealer.
- Patches and similar can appear on the surface to a lesser extent.



### **MIXING RATIOS AND CONSUMPTION**

PRODUCT	CONSUMPTION	MIXING RATIO	DRYING TIME
Conteco Basic	600g/m <sup>2</sup>	<b>2:1 with Mix &amp; Primer</b> (two parts concrete to one part Mix & Primer – can be measured by weight)	45–60 min per layer at 20°C.
Conteco Medium	350g/m <sup>2</sup>	<b>2:1 with Mix &amp; Primer</b> (two parts concrete to one part Mix & Primer – can be measured by weight)	45–60 min per layer at 20°C.
Conteco Fine	350g/m <sup>2</sup>	<b>2:1 with Mix &amp; Primer</b> (two parts concrete to one part Mix & Primer – can be measured by weight)	45–60 min per layer at 20°C.
Concrete Sealer	200ml/m <sup>2</sup>	<b>5:1 with cross-linker</b> (five parts Concrete Sealer to one part cross-linker)	45–60 min per layer at 20°C.
Color Sustainer	30ml/m <sup>2</sup>	Used undiluted	60–90 min at 20°C.
Color Pigment	-	Depends on the color you want	-
Ardex P51	300g/m <sup>2</sup>	<b>Depends on the surface</b> (read the product sheet from the manufacturer)	120–300 min at 20°C.
Ardex A46	1.4 kg/m² per mm.	Mix with water at a ratio of roughly 3:1 (three parts A46 to one part water)	Fast-drying. 30 min at 20°C. Workable after four hours, ready for primer/Conteco after 24 hours.
Ardex 7	1,4 kg/m <sup>2</sup>	1:1 with Ardex 8	15–30 min at 20°C.
Ardex 8	1,4 kg/m <sup>2</sup>	1:1 with Ardex 7	15–30 min at 20°C.

For further information regarding Ardex products, please always refer to the data sheet provided by the manufacturer. **Note:** Lower temperatures will extend the working/drying time. Higher temperatures will shorten the working/drying time.

#### 10 **CONTECO**

#### Building up the layers for a standard floor (not wet room)

Conteco Concrete Sealer 2nd layer\*

Conteco Concrete Sealer 1st layer

Conteco Color Sustainer

Conteco Medium or Conteco Fine

Conteco Basic

#### Existing surface

\* The total amount of Concrete Sealer should always be at least 200ml per m<sup>2</sup> in order to ensure a waterproof surface (even if it has to be applied over more than two layers).

#### Building up the layers for wall/floor in bathroom\*\*

Conteco Concrete Sealer 2nd layer\*

Conteco Concrete Sealer 1st layer\*

Conteco Color Sustainer

Conteco Medium or Conteco Fine

Conteco Medium

Conteco Basic

Existing surface

\* The total amount of Concrete Sealer should always be at least 200ml per m<sup>2</sup> in order to ensure a waterproof surface (even if it has to be applied over more than two layers).

\*\* In the case of establishment on an existing and approved wet room system in a wet area.

#### Building up the layers for a wall/countertop (not wet room)

Conteco Concrete Sealer 2nd layer\* (optional\*\*)

Conteco Concrete Sealer 1st layer\* (optional\*\*)

Conteco Color Sustainer

Conteco Basic (extra rough - only for walls), Conteco Medium or Conteco Fine

Conteco Basic or Conteco Medium

#### Existing surface

\* The total amount of Concrete Sealer should always be at least 200ml per m<sup>2</sup> in order to ensure a waterproof surface (even if it has to be applied over more than two layers).

\*\* Should always be used for countertops indoors and for walls in exposed areas such as behind the stove or WC.

#### Conteco + Ardex for MK/ETA-approved wet room waterproofing

Conteco Concrete Sealer 2nd layer\*

Conteco Concrete Sealer 1st layer\*

Conteco Color Sustainer

Conteco Medium or Conteco Fine

Conteco Medium

Conteco Basic

Ardex SK100W Tricom Sealing Membrane

Ardex 7+8 adhesive

\* The total amount of Concrete Sealer should always be at least 200ml per m<sup>2</sup> in order to ensure a waterproof surface (even if it has to be applied over more than two layers).





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