



MANUAL

In addition to this manual, you should also download the corresponding product and safety datasheets from our website www.coatingshop.nl.

All mentioned consumption figures are indicative and depend on the substrate, conditions, and application method. No rights can be derived from this information.

Version 3.0 November 2024

Manual for coating- and cast-flooring systems

3 **General information**
The first steps to your new floor!

4 **Substrate**
A proper preparation of your substrate

6 **Tools**
Application with the correct tools

7 **Mixing and application**
The steps for the best results

8 **Primers**
Does my substrate need a primer?

9 **Floorcoating**
Choosing the correct number of layers

10 **Cast-flooring**
A seamless cast-floor without imperfections

12 **Topcoating**
Protection for an optimal result

13 **Anti-slip | chip flooring**
Creative with colour and texture

14 **Warm-weather tips**
Be alert with summer temperatures

15 **Maintenance**
How to ensure years of flooring enjoyment!

15 **Other information**
Consider safety and the environment

General information

Applying coating and cast-flooring systems is not complicated, but for an optimal final result, you must adhere to the applicable guidelines.

Temperature

Ensure that the ambient and substrate temperature is at least 15 °C and no higher than 20 °C. Store two-component products in a cool (frost-free) place.

How old should a substrate be before you can apply a system?

When treating a [new](#) concrete or cement screed floor, it is important that it is sufficiently old. The standard curing time is 28 days. This period ensures that the alkalinity of the floor is at an acceptable level. Cement-based levelling compounds often have a shorter drying time. The exact drying time can be found in the product datasheet of the leveling compound you are using.

Moisture level

The moisture level of a cement-based substrate should not exceed 4%, while for gypsum/anhydrite-based substrates, it should be no more than 0.5%. This is checked using a moisture meter. If you don't have a moisture meter, there is another practical method to check this.

Apply duct tape to seal a plastic bag or piece of foil to different areas of your substrate. If no condensation forms under the foil after at least 24 hours, the floor can be coated. Preferably perform this test in areas where you expect the moisture to remain the longest (these areas are often darker in colour). If no condensation has formed under the foil after at least 24 hours, the floor can be coated. Sometimes a dry newspaper is also placed underneath. If it feels damp after 24 hours, the floor is still too moist, and the application of the chosen system should be postponed.



Setting up mixing area and protective clothing

Make sure to work in a clean environment and set up a dedicated area for mixing. Always wear protective clothing, rubber gloves, and safety glasses while mixing. The general rule for chemical products is not to eat, drink, or smoke during application. This also applies to the products from CoatingShop.nl.

Tape off edges and areas that will not be treated neatly, and set up a mixing area. Lay down a large piece of foil or cardboard to avoid spilling material on the floor.

The products from CoatingShop.nl are not dangerous when used correctly. However, they can cause local irritation if they come into contact with the skin.

Always keep children and pets away from paint products!

Substrate

Before starting the application of a coating or cast -floor, it is important that the substrate is properly prepared for further finishing. As a basic requirement, the surface must always be clean, dry, and free from grease. Loose parts should be removed, and if necessary, repairs should be carried out.

Any adhesive residues should be removed. If the substrate shows irregularities, it is recommended to machine sand the surface beforehand. You can use a concrete grinding machine, a diamond grinding machine, or a Woodboy for this.

These machines are available for rent from (construction machinery) rental companies such as Boels (www.boels.nl) and/ or Bo-Rent (www.bo-rent.nl).



Concrete grinding machine



Diamond grinding machine



Woodboy

Another option is to etch the floor. This can be done with a solution of acid and water (for example, a cement haze remover from HG). After etching, the floor must be thoroughly rinsed several times, each time with clean water.

The disadvantage of this method is that it introduces a lot of moisture into the substrate, meaning the application of a coating or cast-flooring system can only be carried out once the floor is completely dry.

Do not use ordinary sandpaper. This will result in inadequate and improper surface preparation. A nylon abrasive pad provides the best result!

Oil and grease stains

Degreasing the floor can be done with a mixture of ammonia and water or with a product such as St. Marc, which can be found in any DIY store. Afterward, rinse the floor thoroughly with clean water several times and then allow it to dry completely.

The use of solvents is strongly discouraged, as they dissolve the grease locally but do not completely remove it. As a result, once the solvent has evaporated, some grease will always remain on the surface.

Existing coating layers may be greasy and should always be degreased before sanding and also before applying a new coating layer.



Oil residues can also be removed using cat litter. This absorbs most of the oil, after which the remaining residues can be removed with a degreasing agent.

The floor should then be rinsed several times, each time with clean water. It should then be allowed to dry thoroughly before any further finishing can proceed.

Cement Skin/Haze

If the substrate contains a cement skin/haze, it should be sanded using the previously mentioned grinding machines. Alternatively, these layers can also be removed with a solution of acid and water (for example, a cement haze remover from HG). After this, the floor should be rinsed thoroughly.

The disadvantage of this method is that it introduces a relatively large amount of moisture into the substrate, meaning the application can only be carried out after the floor has completely dried. This can range from a few hours to a few days, depending entirely on the type of substrate.

Floor Repair

Small repairs to the substrate can be carried out with a 2-component filler or polyester filler. For larger repairs, it is recommended to use an epoxy repair mortar. This mortar is highly wear and impact-resistant and bonds perfectly with the floorcoating to be applied later.



Never use silicone, filler, or levelling compounds as repair materials!

Unfinished and Rough Floors

To achieve the smoothest possible finish, it is important that the substrate is as even as possible. On unfinished substrates, such as a cement screed, it is advisable to first apply a primer.

If necessary or desired, a screed can also be applied. This layer consists of resin and a filler, creating a filling layer. This mixture is applied to the substrate with a flat or notched trowel, scraping over the surface and filling in the existing irregularities.

You can use our Rocapox or Rocathaan screed for this. The exact consumption rate of these products is strongly dependent on the roughness of the floor. Experience has shown that an average consumption of 0.5 to 1.5 kg/m²/layer gives the best results.

Existing Paint Layers

The adhesion of a coating depends on the substrate. If a coating is already present, it is important that it is firmly bonded to the substrate. If you notice paint blisters on the floor, these should be removed first, and repairs should be carried out.

Manual for coating- and cast-flooring systems

If you wish to apply a new layer over an existing, well-adhered epoxy floor, a primer is not necessary. However, you must degrease and sand the floor. You can then apply a single layer of epoxy floorcoating, provided the colour remains the same. If the entire floor needs to be a different colour, a minimum of two new layers of epoxy floorcoating must be applied for an optimal final result.

How much time should there be between layers?

At a temperature of around 20 °C, each subsequent layer should be applied after **18 hours** but within **36 hours**. 27 hours is the ideal time between layers. If these times are not correctly followed, reduced adhesion between the layers may occur!



Tools

To achieve an optimal final result, it is important that our products are applied with the correct tools. For this reason, CoatingShop.nl only offers professional tools and accessories that have been extensively tested and fully meet the requirements of CoatingShop.nl.

Products are always mixed using a drill with variable speed and a [suitable type of mixing paddle](#). For primers, coatings, scraping layers, and topcoats, we offer a variant with a diameter of 80 mm. For mixing cast-floors, we can provide a version with a diameter of 120 mm.

Primers and epoxy coatings are applied using a block brush and a nylon roller. These rollers are available in various widths, but the most practical and commonly used are the 25 cm wide rollers.

Always use a new roller for each layer of epoxy. Cleaning rollers is very difficult and often requires more solvent than simply using a new roller; the same applies to block brushes.

Before use, wrap block brushes and rollers with tape or adhesive tape. This way, you can remove any loose hairs and fibres.



[Block brush](#)



[Nylon roller](#)



[Micronyl roller](#)



[Mixing paddle](#)

Mixing and application of 2-component products

Almost all systems from CoatingShop.nl consist of 2-component products. The **BASE** tin has a label with a blue circle containing an **A**. The **HARDENER** tin has a label with a red circle containing a **B**.

Before mixing the products, it is important to first place the correct **BASE** and **HARDENER** tins for each product next to each other, so you cannot make a mistake while preparing the mixture. The tins also indicate which packaging unit they are intended for. Prepare carefully so that you can work continuously during the application process.

Mixing 2-component products must be done mechanically with a mixing paddle at a low speed. Properly mixing the products is crucial for the final quality, and this is exactly why we have precisely matched our sets. The preference is to mix only complete sets. If this is absolutely not possible, you can accurately weigh the required material using a digital kitchen scale.

Always thoroughly mix the **BASE** material first, then add the full corresponding tin of **HARDENER**. Mix this for a maximum of 2 minutes at low speed. Be aware! Make sure to mix along the sides and across the bottom of the tin as well.

Mixing with stir sticks or similar tools almost always leads to soft spots in the floor and is strongly discouraged. Never weigh material "by eye," as this almost always goes wrong!

To ensure the heat released during the chemical process can dissipate properly from the product, pour the mixture into a rectangular 12-litre paint bucket. Stir the material for another minute in the same way as described above. You can then apply the material directly from the bucket with a roller or brush.



Always wear safety glasses and gloves while mixing.

Application time

2-component products, at a temperature of 20 °C (after mixing), have an average application time of 20–30 minutes. To make the most of the application time, the following factors are important.

- Always store the products in a cool, frost-free place with little or no temperature fluctuations before use. This could be a garage, basement, cupboard, or utility room.
- Pour the product, after the first mixing into its original tin, immediately it to a larger rectangular paint bucket. It is crucial that the heat (which is generated during the chemical process in the product) can escape from the mixture quickly.

Manual for coating- and cast-flooring systems

- Do not process 2-component products at temperatures above 25 °C. The chemical process will proceed much faster, which will drastically reduce the optimal working time, making it difficult to achieve a good final result.
- When using 2-component products for the first time, always mix the smallest possible amount of material first. This allows you to become familiar with the materials and understand what to expect with larger quantities.
- When treating larger floors or floors with irregular shapes, we strongly advise applying our products with a minimum of two people.
- Ensure that once the 2 components are mixed, you can work continuously without interruptions during the application. The curing process cannot be paused or stopped once the materials are mixed!
- 2-component products can become warm after mixing and during the curing process. The larger the amount of mixed product in a bucket, the higher the temperature can rise.

Mixing for longer than indicated, as well as mixing at too high a speed, results in a faster chemical reaction.

This can cause the material to become too warm or even hot. In extreme cases, the material may even start to smoke!

Be cautious when moving containers with mixed material that is already in the curing phase.

Primers

A primer, also known as an adhesion layer, is primarily applied to untreated substrates. A primer serves several functions:

1. Strengthening the substrate (particularly beneficial for older screeds). The primer binds the top layer of the existing floor and strengthens it.
2. Penetrating deeply into the substrate to improve adhesion. This is especially important for less porous substrates (such as concrete floors).
3. Sealing the substrate to ensure that the next coating layer does not absorb too much into the substrate (e.g., cement screed or anhydrite floor).

Which primer for which substrate?

- For absorbent or sandy substrates (such as cement screeds), you can apply a transparent epoxy-based primer layer. For this layer, use: *Rocapox Primer GV-M with an average consumption of approximately 0.15 - 0.50 kg/m²/layer or Rocapox Resin 100 with an average consumption of approximately 0.10 - 0.25 kg/m²/layer.*
- For highly absorbent substrates (such as anhydrite floors), you will need to apply a two-layer primer system. For the first layer, use: *Rocapox Primer ELT with an average consumption of approximately 0.10 - 0.25 kg/m²/layer. Or Rocapox Resin 100 with an average consumption of approximately 0,10 - 0,25 kg/m²/layer.*

- For less absorbent substrates (such as concrete, etc.), it is best to apply a primer layer based on a thinner, deeply penetrating, transparent epoxy.
For this layer, use: Rocapox Primer ELT with an average consumption of approximately 0.10 - 0.25 kg/m²/layer.
- For self-levelling screed substrates, it is best to apply a primer based on epoxy.
For this layer, use: Rocapox Primer ELP with an average consumption of approximately 0.20 - 0.35 kg/m²/layer.

Without the use of a primer, the average consumption of an epoxy floor coating will be significantly higher.

If a castfloor is applied without a primer, there is a very high chance that air bubbles will appear in the final result.

Please keep this in mind when ordering your materials!

Floorcoating

Single-layer system

In a single-layer floorcoating system, only one layer of floorcoating is applied to the substrate. This system is only suitable if the floor is already covered with an existing layer of epoxy floorcoating or epoxy cast-flooring. When using a single-layer floorcoating system over absorbent substrates, the final result will likely be patchy. However, if the result is unsatisfactory, you can always apply a second and/or third layer of floorcoating.

Structure of a single-layer floor coating system:

- One layer of Rocapox Flooring R with a consumption of approximately 0.20 - 0.35 kg/m²/layer. If you have added anti-slip quartz to the coating, the consumption will be around 0.10 - 0.25 kg/m²/layer.

Two-layer system

A more commonly applied system is the two-layer floorcoating system. This is particularly sufficient for adequately absorbent and non-powdering substrates. The first layer reduces the absorbency, and the second layer ensures a smooth, even finish.

Structure of a two-layer floor coating system:

- One layer of Rocapox Flooring R with a consumption of approximately 0.20 - 0.35 kg/m²/layer. (The first layer acts as a primer/base coat and is applied in the same colour as the second layer to prevent insufficient coverage in the second layer.)
- A second layer of Rocapox Flooring R with a consumption of approximately 0.15 - 0.30 kg/m²/layer. If anti-slip quartz has been added to the coating, the consumption will be around 0.10 - 0.25 kg/m²/layer.

Manual for coating- and cast-flooring systems

Three-layer system

In most cases, a three-layer floorcoating system is applied.

Structure of a three-layer floorcoating system

- One layer of primer with a consumption of approximately 0.10 - 0.50 kg/m²/layer (depending on the primer choice).
- One layer of Rocapox Flooring R with a consumption of approximately 0.20 - 0.35 kg/m²/layer. If anti-slip quartz has been added to the coating, the consumption will be around 0.10 - 0.25 kg/m²/layer.
- A second layer of Rocapox Flooring R with a consumption of approximately 0.15 - 0.30 kg/m²/layer. If anti-slip quartz has been added to the coating, the consumption will be around 0.10 - 0.25 kg/m²/layer.

Cast-flooring

Rocapox/Rocathaan cast-floors are high-quality cast-floors based on combined, solvent-free polyurethane or epoxy. Seamless, abrasion-resistant, durable, through-and-through coloured, and easy to maintain are a few key characteristics that give a good impression of a Rocapox/Rocathaan cast-floor.

The total lifespan of a cast-floor can range from 5 to 15 years. This is determined by several factors, namely:

- the adhesion to the substrate
- the applied layer thickness
- the usage intensity

Checking the subfloor

Before ordering material from CoatingShop.nl, ensure that your floor is sufficiently level and does not show any porous spots. Any irregularities in the substrate will become visible on the surface of the cast-floor, and action will need to be taken. You can sand down bumps, and any depressions/pits should be filled.

It is often assumed that a cast-floor also acts as a levelling compound, but this is not the case!

Applying a screed

If your floor, after applying a primer, still shows porous spots, you must touch these up before applying a Rocapox/Rocathaan cast-floor. Smaller areas can be touched up with an epoxy filler, while larger areas should be treated with a Rocapox/Rocathaan screed.

The purpose of a screed is to fully seal the substrate. This prevents air release or air bubbles from rising up from the substrate. A screed consists of two components and is applied using a trowel in a scraping motion.

The average consumption of a screed is around 1 kg/m²/layer.

Ensure that when applying a screed, it is evenly distributed so that no "ripples" form. These will be very difficult to remove once hardened.

Applying a Cast-floor

Before you start mixing the products, it is important that you first place the correct **BASE** and **HARDENER** tins of each product together so that you cannot make a mistake during the mixing process. Based on the size of the ordered set(s), determine how many square metres you need to cover with this set.

Mark the number of square metres you definitely need to cover on the floor using a piece of painter's tape. This way, you can easily see if you have applied the correct amount of material per square metre. Divide the entire floor into sections in this manner.

After mixing the first set of cast-floor, you can begin to distribute it onto your substrate (photo 1a). Keep in mind that while pouring the material, you must still be able to reach the poured material in order to spread it further across the floor surface. When spreading the cast floor, hold the trowel (photo 2a) with the teeth facing downwards and slightly tilted. The 6 mm teeth of the trowel will ensure the correct thickness of the cast-floor (photo 1b).



Foto 1a: distribute cast-floor



Foto 1b: position trowel



Foto 2a: trowel



Foto 2b: de-airing roller



Foto 2c: spiked shoes

Too much material under your trowel is not an immediate problem, as long as you have enough material for the remaining square metres of your floor. A layer that is applied too thinly will hardly flow and the "strokes" made with the trowel will remain visible.

If you are unsure whether the application of your cast-floor will go as planned, it is recommended to use a de-airing roller (photo 2b).

Manual for coating- and cast-flooring systems

The use of a de-airing roller will have a positive effect on the final result, as the roller will eliminate any air bubbles present in the casting-floor mixture. However, this does not apply when you are applying a “concrete look” cast-floor. In this case, the use of a de-airing roller will prevent the different colours from blending nicely together. The de-airing roller should only be used while the cast-floor is still sufficiently liquid.

For larger floors, use spiked shoes (photo 2c). This will allow you to walk on the wet layer without causing any issues.

Never use the de-airing roller or spiked shoes on material that is in the curing phase!

Topcoating

Every Rocapox/Rocathaan cast-floor must be finished with at least two layers of topcoating. These two layers of topcoating serve to protect your valuable cast-floor from scratches, damage caused by household use, and prevent extreme discolouration from UV light exposure.

An epoxy coating does not necessarily need to be finished with a topcoating, but it certainly offers benefits if you do so. This largely depends on the application and the load placed on the floor.

The benefits of using a topcoat over an epoxy coating are virtually the same as the benefits when used over a cast-floor:

- Protection against scratches and damage during use.
- Blocking UV light to prevent extreme discolouration.
- Immediate matting of the epoxy floor (Topcoat 20 matt).
- Making it possible to create an anti-slip layer over smooth coated floors (Topcoat 20 combined with anti-slip for topcoats).

The biggest advantage of a topcoat is that after a few years or after heavy use, you can restore your floor at relatively low cost (similar to varnishing a parquet floor).

You can choose from the following topcoats with us:

- Rocathaan Topcoat 20-TR (transparent), available in matt or satin.
- Rocathaan Topcoat 20-C (colour), available in matt or satin.

Very important!

You must apply all Rocathaan topcoating systems in two thin layers. The coverage per m² is provided in the product sheet you downloaded. Exceeding the specified amount can cause foaming, which may still be visible after drying (a white haze in the final result).

If the “open” time of the previous layer is exceeded, the floor will need to be sanded. Afterward, it must be thoroughly cleaned, dried, and dust-free.

Mask off all walls/edges where no topcoat is to be applied, and distribute the topcoat over the entire surface (including corners) using a suitable micronyl roller until a uniform texture is achieved. Apply the topcoat vertically, spread horizontally, then roll vertically again.

Avoid drafts from windows and doors, as well as air movement from air conditioning or fans. A significant increase or decrease in relative humidity, ambient temperature, and/or substrate temperature can cause issues.

Failure to adhere to these guidelines may result in differences in gloss in the final result!

Anti-slip

There are several ways to apply an anti-slip layer to your floor.

- You can choose an anti-slip floorcoating, where after mixing the two components, you mix a measured amount of quartz into the material.
- Alternatively, you can choose to scatter fire-dried quartz granules into the (last) still-wet coating layer. Keep in mind that this method of creating anti-slip can often result in a very coarse finish, which may not be desirable in all situations.
- The final option is to mix a special anti-slip powder directly into the topcoat. This method results in a subtle and much less visible anti-slip feature and, by using round plastic beads, is ideal for use on bathroom floors.



Chip-flooring

A playful way to give your floor an extra decorative appearance is by using colour chips (or paint flakes).

These paint chips, also known as Decochips, are sprinkled onto the last still-wet layer of floorcoating.

Decochips must be covered with at least two layers of transparent topcoat to prevent the colour chips from coming loose, ensuring you get longer-lasting enjoyment from your floor.



Important warm-weather tips

Coatings and summer temperatures, be alert!

Nearly all products from CoatingShop.nl are solvent-free and, as a result, more sensitive to warm temperatures. It is not the ambient temperature, but rather **the temperature of the product** itself that determines the maximum application time. The warmer the product is at the start, the shorter the application time will be. The combination of excessively warm products and intensive mixing can cause the application time to decrease by as much as 60%.

To make the most of the application time, several factors are important.

- During transport, the temperature of the products may rise. In warm weather, allow the product to acclimatise for a few days in a cool environment below 20 °C.
 - Store the products in a cool place below 20 °C. The higher the product temperature, the shorter the application time after mixing.
 - After mixing, pour the product into a 12-litre rectangular paint bucket. It is important that the heat generated by the product can dissipate quickly.
 - Do not process epoxies at higher temperatures. Once the **product temperature** exceeds 25 °C, it often becomes difficult to work with. If necessary, check the temperature of the **still unmixed** products using an old thermometer that you no longer use for other purposes.
- It is better to postpone the work for a few days than to waste half-empty containers.
- Preferably, apply epoxy with two people. Ensure proper preparation before mixing the product—avoid discovering mid-application that certain areas still need masking.
 - Two-component products can generate heat during curing. The larger the volume of mixed product in the container, the higher the temperature may rise. Be cautious when handling containers with mixed products that have already entered the curing phase and are generating heat.

If you still wish to work with our products in warm weather, consider mixing smaller portions. It is essential to do this in the correct ratio. First, stir both components thoroughly and **carefully weigh the desired amount**. Use a scale for accuracy—do not estimate by eye.

The mixing ratio is stated on the packaging, based on 1 kg of mixed product.

Example of mixing ratio calculation:

The packaging states a mixing ratio of **800 grams A : 200 grams B = 1 kg total**

For 5 kg, you take five times the amount, meaning **4000 grams A : 1000 grams B = 5 kg total**

Maintenance

Synthetic floors, like any other type of flooring, have limited scratch resistance. Using a topcoat already significantly improves this, but by following the tips below, you can ensure that you enjoy your floor for as long as possible!

- Use good quality entrance mats to trap dirt and moisture at every doorway.
- Always fit chairs and tables with felt pads and keep them clean.
- Use a soft, clean brush attachment when vacuuming.
- Do not drag heavy metal objects across the floor.
- Avoid sand on the floor, as it acts like sandpaper.
- Never use a scouring pad or abrasive cleaner when cleaning the floor.

Other information

What to Do in Case of

Skin Contact: Remove contaminated clothing and wash the affected skin with soap and plenty of water (if necessary, under a shower).

Eye Contact: Rinse eyes with running water for at least 15 minutes and seek medical attention. (Always keep the relevant packaging on hand.)

Ingestion: Seek medical assistance immediately (always keep the relevant packaging on hand).

Waste Disposal

Empty packaging should be taken to your local waste disposal facility. These materials are classified as chemical waste and must be treated accordingly.

Final Advice

When using CoatingShop.nl products, always prioritise your safety and that of others. If you have any doubts, contact CoatingShop.nl before starting your application. You can also find a Frequently Asked Questions section at www.coatingshop.nl.

A background image showing a person's feet in work boots and a bucket pouring a yellow liquid coating onto a floor. The text is overlaid on this image.

We wish you success in applying the products from
CoatingShop.nl. Feel free to share your results with us at
info@coatingshop.nl.

Kind regards,
[CoatingShop.nl](http://www.coatingshop.nl)

