

# After installation

Instructions



A Dinesen floor is a unique piece of nature. It is a living material which must be treated with care. Our instructions explain in detail how you get the best result so the floor can last for centuries.

If you need any additional advice about Dinesen floors, you are very welcome to contact us.

To order and purchase products in the maintenance series, please go to our webshop at dinesen.com

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## Choice of finish for Dinesen floors

Dinesen planks are always delivered unfinished, and after installation, the floor must be sanded and finished. This gives you the opportunity to choose the finish that matches your expectations of the floor. It is important to consider the advantages and disadvantages of the various finishes carefully.

The finish protects the planks from grease, dirt and depletion and also forms a wearing layer that minimizes direct wear on the plank. Both sanding and finishing must be carried out with great care to achieve a good result. Therefore, we recommend that the work be carried out by a certified and experienced floor specialist. Only use Dinesen products or products approved by Dinesen for surface finishing and maintenance as alternative products can cause consequential damages.

# 1.1 Dinesen Lye and Floor Soap | Douglas, Pine

#### Advantages

Lye finishing is a traditional Scandinavian finish for coniferous wood, which stops the natural patination process and preserves a light colour tone. After the lye finish, the floor must be finished with Dinesen Floor Soap. The soap forms a protective soap membrane, which is further improved with the subsequent maintenance and cleaning of the floor. Every time the floor is washed with Dinesen Floor Soap, the soap membrane is renewed, which provides ongoing maintenance of the floor. It is easy to clean the floor using the Dinesen floor kit. This will remove most stains except ammonia and iron, which typically require sanding and a refinish of the floor. Any dents will rise when the floor is washed. The colour tone is easily adjusted by varying between white and natural coloured Dinesen Floor Soap. A carefully maintained Douglas floor will look beautiful for many years.

#### Disadvantages

The floor must be washed regularly to maintain the protective soap membrane and to stay beautiful. Typically, floors in kitchens and rooms with heavy use need to be washed approximately once a week, while floors in other rooms need washing approximately once every 2 weeks. Dinesen Floor Soap White may stain socks etc. slightly, but the colour goes away when the item is washed. Take care, however, not to splash furniture, door jambs etc. with the white soap. Any splashes are easily removed with a clean, damp cloth shortly after the floor has been washed.

#### General points

A very good choice for most private homes. It is important to use Dinesen Lye, as other types of lye may discolour Douglas and Pine planks. Similarly, Dinesen Floor Soap is developed especially for Dinesen planks and offers superior protection compared to other floor soaps. See our instruction videos at dinesen.com for a detailed demonstration of how a soap-finished Dinesen floor is washed correctly.

Finishing Dinesen Oak planks with Dinesen Lye and Dinesen Floor Soap is not generally recommended.

# 1.2 Dinesen Lye and Oil | Douglas, Pine

## Advantages

An Oil finish seals the surface from the beginning. Therefore, it is not necessary to wash an oil-finished floor as often as a soap-finished floor. The floor is easy to clean with Dinesen Floor Soap for wooden floors with an oil or lacquer finish.

#### Disadvantages

The floor must be refinished with oil regularly to re-establish the oil layer and reseal the surface. The frequency depends on the degree of use. If the oil coat is not worn through, it is not necessary to use lye before refinishing the floor. You may refinish smaller areas with oil, but the most uniform result is achieved by treating the entire surface. If the oil coat is worn through, you will have to sand the floor and start over with Dinesen Lye and Dinesen Oil. Compared to the soap finish, it is harder to remove dents by washing the floor, as the sealed surface prevents the water from penetrating and making the dent rise. An oil-finished floor will also initially have a more reddish tone than a soap-finished floor, but this fades over time.

## General points

A strong finish. Very suitable for busy families and commercial use. Always recommended for homes that are only in use part of the year. Dinesen Oil is easy to work with

## 1.3 Dinesen Oil | Douglas, Pine, Oak, Ash

#### Advantages

Dinesen Oil gives the floor a beautiful, warm and rich appearance. The oil leaves a strong surface that is easy to clean with Dinesen Floor Soap for wooden floors with an oil or lacquer finish.

#### Disadvantages

The floor must be refinished regularly to re-establish the oil layer and reseal the surface. If the oil coat is not worn through, it is not necessary to sand the floor before it is refinished. You may refinish smaller areas with oil, but the most uniform result is achieved by treating the entire surface.

#### General points

A strong finish. Oil finishing lets you choose between several colours. Please note that you will have to sand the floor and refinish it anew if you wish to change the colour. We offer white, light and natural coloured oils as a standard. **Especially for Douglas and Pine:** We recommend finishing Dinesen Douglas floors with lye as a finish with only White Oil, Light Oil or Natural Oil will result in a slightly reddish look. Dark coloured oils can be applied without a prior lye finish. **Especially for Oak and Ash:** A White Oil finish gives a very light surface, while Light Oil gives a look that is very close to unfinished oak. Natural Oil creates a warm expression and highlights the natural characteristics of the wood.

## 1.4 Lacquer | Oak, Ash

#### Advantages

A lacquer finish seals the surface completely. It produces a surface that does not require maintenance but simply requires cleaning as needed. The floor is easy to clean with Dinesen Floor Soap for wooden floors with an oil or lacquer finish.

#### Disadvantages

Dents do not rise when the floor is washed. Douglas and Pine planks are generally more susceptible to dents than Oak and Ash. If the lacquer is scratched, dirt may penetrate into the plank and cause damage. It is therefore necessary to repeat the lacquer finish as needed. The lacquer finish must be renewed before the lacquer coat is worn through. Otherwise, you will have to sand the entire floor and refinish with lacquer. Spot repairs of a lacquered surface is unlikely to produce a good result.

#### General points

Very suitable for commercial purposes where time or other constraints do not allow for frequent washing. Lacquer is most suitable for Dinesen Oak planks. Depending on the use of the floor, a lacquer finish may in some cases be the right choice for a Douglas or Pine floor, but usually Lye and Floor Soap or Oil will be a much better finish for conifer floors. You are welcome to call us for additional advice.

It is important to use a lacquer that is recommended by Dinesen to avoid lacquer binding, which risks ruining the planks. Lacquer without pigmentation gives the planks a reddish appearance. The same occurs if the planks are not finished with oil before the lacquer finish.

Faulty lacquering can ruin the floor. Please note that water-based lacquer can cause lacquer binding, which prevents the natural movements of the planks and thus damages the planks. It is important to oil the floor before applying lacquer, as the oil reduces the risk of lacquer binding.

# 1.5 Compatibility tables

An overview of the various finishing options and the choice of cleaning and maintenance products.

#### 1.5.1 Choice of surface finish

	Douglas	Pine	Oak/Ash
Lye and Floor Soap	Compatible	Compatible	Incompatible
Lye and Oil	Compatible	Compatible	Incompatible
Oil	Compatible (slightly reddish look)	Compatible	Compatible
Lacquer	Compatible (with reservations)	Compatible (with reservations)	Compatible

Table 1

#### 1.5.2 Choice of cleaning products

	Dinesen Floor Soap White/Natural	Dinesen Oil Soap	Dinesen Cleaner
Lye and Soap	Useable		
Lye and Oil		Useable	
Oil		Useable	
Lacquer			Useable

Table 2

#### 1.5.3 Choice of maintenance products

	Dinesen Floor Soap White/Natural	Dinesen Oil White/Light/ Natural/Invisible	Bona Traffic HD Raw lacquer
Lye and Floor Soap	Useable		
Lye and Oil		Useable	
Oil		Useable	
Lacquer			Useable

Table 3

# 2 Important information before finishing

# 2.1 Building

- The building must be dry and free of construction humidity in accordance with Dinesen's humidity guidelines. Never initiate the finishing until the building is sealed, dry and warm, and the humidity levels are under control.
- The temperature must be between 18 and 25 °C.
- The air humidity must be between 35 and 65% RH and must not exceed 50% RH in winter. A hygrometer is available from Dinesen.
- · In addition, always follow Dinesen's instructions generally.

## 2.2 Floor

- The floor must be completely smooth and well-sanded. If the floor is not sanded correctly or evenly, it will affect the finish and make cleaning and maintenance more difficult
- The moisture content in the wood must not exceed 13-14%. The planks are supplied with a moisture content of 8-10% and must be installed immediately after delivery. If the moisture content is too high, there is a risk that the planks will reject the finish.
- · The surface must be dry and clean and must be vacuumed just before the finishing.

# 2.3 Equipment and tools

Well-maintained quality tools are a condition for a good result. Below, is an overview of the equipment and tools that may be needed in connection with sanding, finishing and maintenance.

# 2.3.1 Sanding

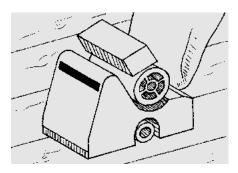


Figure 1: Belt sander Rough sanding – planing the planks

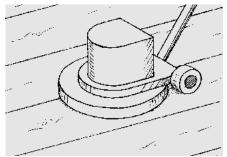


Figure 2: Disc sander Fine sanding

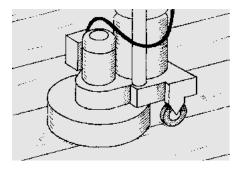


Figure 3: Trio/Quattro sander Fine sanding

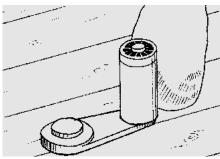


Figure 4: Edge sander Rough sanding – planing the planks

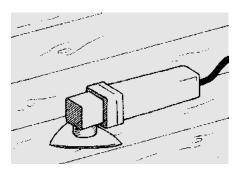


Figure 5: Delta sander Fine sanding

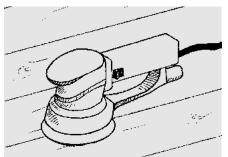


Figure 6: Random orbit sander Fine sanding

We recommend sanders with a built-in vacuum with a fabric bag.

# 2.3.2 Finishing and maintenance

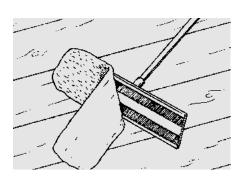


Figure 7: Mop For floor washing

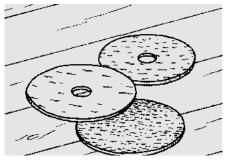


Figure 8: Polish roundels For light polishing

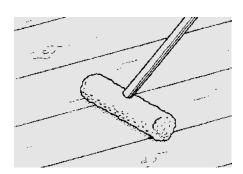


Figure 9: Lye mop For applying lye

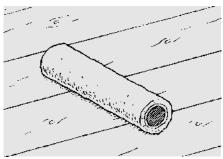
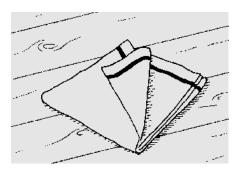


Figure 10: Mohair roller For applying oil





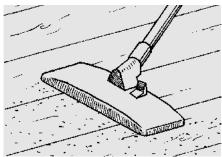


Figure 12: Vacuum cleaner For cleaning the floor

## 2.4 Maintenance

It is very important to consider that the floor needs maintenance to stay beautiful. Floor washing must be done as needed and depending on the use and location of the room. Entrance halls and kitchen floors normally see the heaviest use in the home and therefore require more cleaning than the other rooms of the house.

#### 2.4.1 Guideline for maintenance intervals

Soap-finished floors are normally maintained in the course of normal floor washing. For oil-finished floors, we recommend that you re-apply oil as needed. Floor lacquer is not an indestructible surface, and depending on use, a lacquered floor will therefore have to be refinished at intervals. Keep an eye on the floor to make sure that the lacquer and oil coat is not worn through. Normally, repairs are not possible, and it will therefore be necessary to sand the floor down to the bare wood and refinish it if the top coat is penetrated.

The table below suggests guideline maintenance intervals depending on the degree of use.

- · Medium use: bedrooms, living rooms etc.
- Heavier use: shops, showrooms, kitchen/family room, offices, hotels etc.

	Medium use	Heavier use
Soap	Wash once every 2 weeks	Wash about once a week
Oil	Maintenance once a year	Maintenance every 6 months
Lacquer	Maintenance every 2 years	Maintenance once a year

Table 4

We recommend that you keep an eye on the floor continually to make sure that it receives the proper care and maintenance for the actual pattern of use, wear and climate. A soap finished floor requires quite a lot of attention in the beginning but this will diminish gradually with time.

#### 2.4.2 Consequences of inadequate maintenance

Wood is a living material, and a lack of proper maintenance will have certain natural consequences. Among the possible consequences are:

## Shellout and splinters

With normal use, any wooden floor is subject to mechanical wear. Finishing and ongoing maintenance are therefore essential for protecting the wood. It is particularly important to keep an eye on the wear on Douglas or Pine which are not as hard-wearing as hardwood Oak or Ash floors. The softer spring wood (the lighter areas in the grain) wears faster than autumn wood (the darker areas), which may

cause autumn wood and knots to stand out in relief. This may in turn result in shellout which may lead to splinters and which may damage the floor. Typically, shellouts and splinters can be sanded down if they are spotted in time.

#### Windshake

Windshake occurs when the wood surface dries too quickly, causing hairline cracks. They only affect the surface and do no damage to the plank. Windshake can occur on well-maintained as well as poorly maintained floors but will be far more pronounced on a poorly maintained floor. The drier the floor is, the greater the likelihood of windshake.

Resin secretion (soap-finished floors)

Paris a secretion is a sign of healthweet.

Resin secretion is a sign of healthy wood and is evident as small dark/black spots. Resin secretion may occur both before and after finishing. Heat from sanding may also bring out the resin spots. Smaller spots can be removed with denatured alcohol on a cloth. Larger areas are scoured with a soap mix (ratio: 0.5 litre of Dinesen Floor Soap to 5 litres of lukewarm water. 1:10) and a white scouring pad (for example from 3M). Depending on the size of the spot and the amount of resin, it may be necessary to repeat the treatment 2-3 times. Remember to renew the soap membrane after heavy scrubbing.

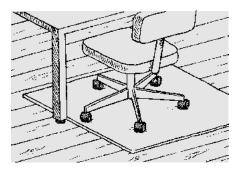
Dinesen is happy to offer advice about poorly maintained floors but does not cover any costs associated with this issue.

#### 2.4.3 Dents and scratches

Over time and with use, dents and scratches on a floor are inevitable. But with a few simple precautions, you can reduce the extent considerably. Wooden floors should be protected from dirty footwear. Therefore, there should always a good, large doormat at all entrances. A rug under the dining table may be a sensible solution. Always use felt pads under furniture legs and place a mat underneath your office chair.

Also be careful with sharp objects, pointy stiletto heels and other objects that might scratch and damage the floor. It is also important to vacuum the floor to remove dirt, sand and other potentially harmful particles as soon as possible.

On a Douglas and Pine floor, most dents will disappear the next time the floor is washed. The easiest way to remove larger dents and marks is to quickly pour a little hot water into the holes. The pores of the wood absorb the water and rise again. You may have to repeat the treatment over a few days. This method is both simple and effective. If the wood fibres are broken, however, this treatment is not sufficient, and actual repairs will be required.





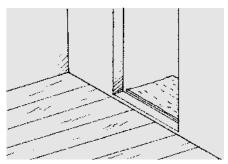


Figure 14: Doormat

• Always use felt pads under furniture legs and place a mat underneath your office chair.

When the floor is installed, about 1 mm difference in level between the individual planks is within acceptable limits. In the first sanding, you should therefore expect to take 0.5-1 mm off the planks. Subsequent sanding will typically remove slightly less wood, depending on the scratches, marks etc. that need to be removed. A solid plank has enough material to be sanded many times.

Careful sanding is necessary for a good result. We therefore recommend that the work be carried out by a certified and experienced floor specialist.

If the floor has been screwed and plugged from above, first use a small belt sander to make the plugs level with the planks. Alternatively, use an edge sander.

Always sand in the direction of the grain. Along edges, in corners, by pipes etc, use an edge sander, for example in combination with a delta sander and a random orbit sander.

• The maximum difference in grit sizes between the stages is 20. Make sure that any scratches from the previous sanding process are removed completely.

#### Procedure

- 1. Sand the floor with a belt sander, grit 60-80. Use an edge sander for sanding edges and areas around pipes etc.
- 2. Sand the floor with a Trio or a Quattro sander, starting with grit 60-80 and finishing with grit 100-120. Alternatively, use a belt sander where you finish with grit 100-120 and a disc sander, grit 100-120.
- 3. Vacuum the floor and any adjacent surfaces (for example window sills) carefully before applying the finish. Vacuuming only, no other cleaning.

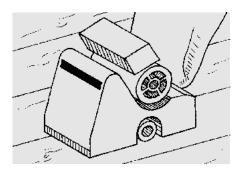


Figure 15: Belt sander

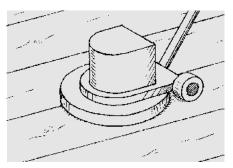


Figure 16: Disc sander

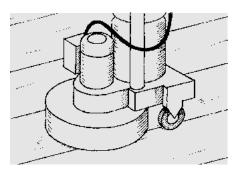


Figure 17: Trio/Quattro sander

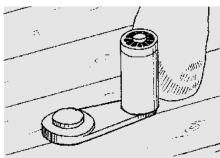
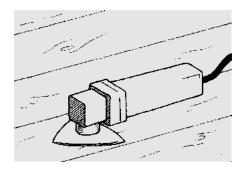


Figure 18: Edge sander



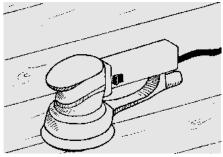


Figure 19: Delta sander

Figure 20: Random orbit sander

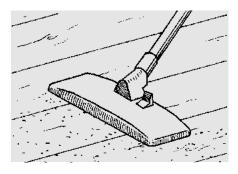


Figure 21: Vacuum

After the sanding, the surface must appear smooth and even without any difference in level between the planks. There should be no visible transitions between the sanding of the floor surface and the sanding of edges or corners, and there should be no visible scratches from the sanders.

Cover the floor with thick grey flooring cardboard ( $400 \text{ g/m}^2$ ) or other diffusion-open material if it is not sanded and finished immediately after the installation. If construction activity calls for additional protection, cover the floor with Masonite boards, for example, and make sure to tape all the joints.

Please note that the floor surface must be uniformly and fully covered. Otherwise, the effects of light and sun may cause colour differences. We advise against any use of adhesive tape directly on finished or unfinished floors.

Sanding is dusty and noisy. Always use mandatory breathing masks and hearing protection.

## 4 Basic finish

## 4.1 Basic finish, general

To achieve the expected colour and surface protection, it is important that the previous stages are carried out correctly.

Always check that the surface is correctly prepared, and that it is free of dust, wax and any other debris before the work is begun. Correct sanding is essential and must be carried out in accordance with the instructions in paragraph 3.

The interior environment must be controlled and stable, cf. Dinesen's general instructions. An ideal environment is considered to be 20 °C and 45% RH in a ventilated room.

High temperatures and low humidity will shorten drying times, while high humidity and low temperatures will lengthen them. Excessive humidity in the room or in the wood may stop the curing process entirely. Dinesen always recommends that you pre-water the floor to improve colour absorption and surface finish. Pre-watering prolongs the drying time. Always use all necessary and legally required personal protective equipment. See the label on the back cover for additional information.

## Dinesen and Bona A/B

Dinesen's recommended oil and lacquer products and soaps are carefully selected in cooperation with Bona A/B. Bona A/B is one of the world's leading manufacturers of finishing and maintenance products for wooden floors. With this partnership we ensure that the surface products we offer are thoroughly tested and of the best quality.

As our instructions for the use of finishing and maintenance products are intended specifically for Dinesen floors, they may deviate slightly from Bona A/B's own general instructions. Additional combinations and products are available directly from Bona A/B.

If you are interested in a Bona A/B surface maintenance product that is not included in Dinesen's recommended selection you are always welcome to contact Bona A/B or Dinesen for additional guidelines or advice.

## Compatibility

	Douglas/Pine	Oak/Ash	
Dinesen Lye and Soap	✓		
Dinesen Oil 2K	✓	✓	
Lacquer		✓	

Table 5

## 4.2 Dinesen Lye and Floor Soap | Douglas, Pine

The finish consists of lye, which gives the wood a light colour and stops the natural patination process, and soap, which forms a protective soap membrane on the surface of the wood that serves as a wearing layer. Dinesen Lye is especially suitable for Dinesen Douglas and Pine floors because the mild lye gives the floor a delicate, light appearance.

Guide	lino	dn	ina	timos	
Guide	me	urν	/IIIU	umes	

Lye	6 hours
First soap application	20 minutes
Second soap application	2-4 hours
Total	8-11 hours

Table 6

#### 4.2.1 Lye finish



Figure 22: Dinesen Lye Spreading rate: approximately 8 m<sup>2</sup>/litre

#### Procedure

- 1. Shake the container thoroughly. It is important to distribute the pigmentation evenly.
- 2. Pour the lye into a plastic bucket. Stir it frequently throughout the process.
- 3. Apply the lye using a lye mop, brush or roller, always working in the direction of the grain. Use plenty of lye, and draw the excess lye off in the direction of the grain.
- 4. Allow the floor to dry for at least 6 hours at 20 °C and 50% RH.
- 5. Sand the floor lightly using a disc sander with a sanding screen or sandpaper, grit size 120-150. A slightly used sanding screen is preferable. Alternatively, grind the sanding screen with a concrete slab or a carborundum stone before use.
- After the lye finish, the floor is very delicate because the lye opens the surface of the wood. It should therefore be finished with Dinesen Floor Soap as soon as it is dry.

## 4.2.2 Soap finish



Figure 23: Dinesen floor Soap, White/Natural Spreading rate: approximately 16 m²/litre

Wash the floor twice with Dinesen Floor Soap Natural or Dinesen Floor Soap White. For a very light surface, use the white soap. Instead of a floor cloth or a mop you may use a clean lye mop.

#### Procedure

- 1. Shake the container thoroughly. It is important to distribute the pigmentation and the wax evenly.
- 2. For the first wash, dissolve 2.5 litres of Dinesen Floor Soap in 5 litres of lukewarm water. **1:2**. For the second wash, dissolve 1.5 litre of Dinesen Floor Soap in 5 litres of lukewarm water. **1:3**
- 3. Wash the floor in the direction of the grain.
- 4. Wipe the floor with a floor cloth or a mop wrung in soapy water. It is important not to wring the floor cloth or the mop in clean water, as that would remove too much of the soap.
- 5. The floor must be left to dry for at least 20 minutes between the first and the second wash. After the second wash, leave the floor to dry for 2-4 hours.
- 6. Polish the floor with a green polish roundel. This gives the floor a more uniform surface and forms a good basis for the normal floor washing in the future.
- The final polish is crucial for the quality of the surface membrane and must never be skipped.





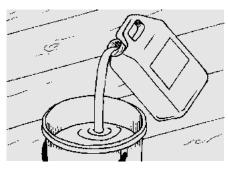
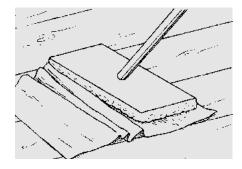


Figure 25: Pour



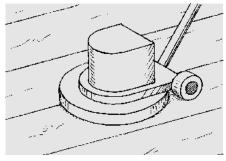


Figure 26: Wash

Figure 27: Polish

## 4.3 Dinesen Lye and Dinesen Oil, 2K | Douglas, Pine

The finish consists of lye, which gives the wood a light colour and stops the natural patination process, and oil, which seals the surface and adds a protective wearing layer to the wood. Dinesen lye is especially suitable for Dinesen Douglas and Pine floors because the mild lye gives the floor a delicate, light appearance. Finishing Oak and Ash with lye is not recommended.

• It is not possible to apply Lacquer on a Lye and Oil treated floor

#### Guideline drying times

Lye	6 hours
Dinesen Oil, 2K	24 hours
Total	30-36 hours

Table 7



Figure 28: Dinesen Lye Spreading rate: approximately 8 m²/litre



Figure 29: Dinesen Oil, 2K Spreading rate: approximately 26-30 m²/litre

- 1. Shake the container thoroughly. It is important to distribute the pigmentation evenly.
- 2. Pour the lye into a plastic bucket. Stir it frequently throughout the process.
- 3. Apply the lye using a lye mop, brush or roller, always working in the direction of the grain. Use plenty of lye, and draw the excess lye off in the direction of the grain.
- 4. Allow the floor to dry for at least 6 hours at 20 °C and 50% RH.
- 5. Sand the floor lightly using a disc sander with a sanding screen or sandpaper, grit size 120-150. A slightly used sanding screeen is preferable. Alternatively, grind the sanding screen with a concrete slab or a carborundum stone before use.
- After the lye finish, the floor is very delicate because the lye opens the surface of the wood. It should therefore be finished with Dinesen Oil as soon as it is dry.

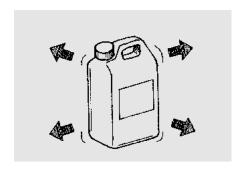


Figure 30: Shake the container

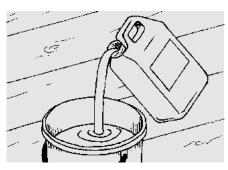


Figure 31: Pour

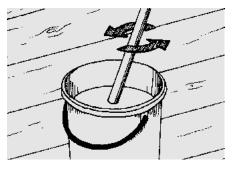


Figure 32: Stir frequently

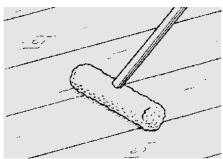


Figure 33: Apply

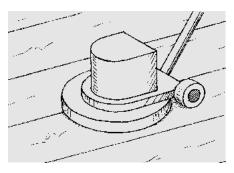


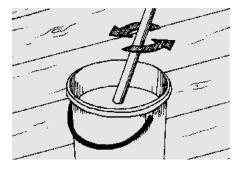
Figure 34: Sand lightly

## Applying Dinesen Oil, 2K on Lye

- 1. Pierce both layers of the top of the container with a screwdriver to allow the hardener and the oil to mix. Wait one minute. Remove the lid and stir thoroughly.
- 2. Apply a thin coat of oil. Use a polishing machine with a white polishing pad. Work the oil into the floor for 15-30 minutes. Always work wet on wet. Add oil as needed to saturate the surface. Finish with a red pad to deal with any raised grain.
- 3. Excess oil should be removed immediately after the treatment using a polishing machine with cotton cloths.
- Make sure the floor is properly saturated.
- 4. Allow the floor to dry for at least 24 hours after the treatment. Optimal conditions for drying are a temperature of 20 °C and relative humidity of 45% in a ventilated room.

The floor may be used with caution, but the oil finish is still susceptible to marks and dents. Do not cover the floor with anything that traps humidity, subject it to heavy loads, expose it to dirt or wash it before it has attained maximal hardness, which happens after 5-7 days.

**CAUTION:** DINESEN OIL, 2K CONTAINS DRYING OILS. RISK OF SELF-IGNITION. USED CLOTHS AND OTHER MATERIALS MUST BE PLACED IN WATER OR IN AIRTIGHT METAL CONTAINERS.



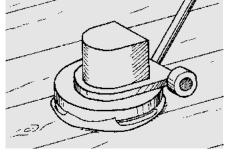
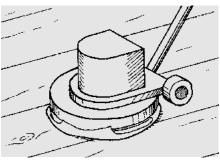


Figure 35: Stir

Figure 36: Polish (white polish roundel)



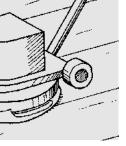


Figure 37: Polish (red polish roundel)

Figure 38: Excess oil should be removed (Use a polishing machine with cotton cloths)

#### Dinesen Oil, 2K | Douglas, Pine, Oak, Ash 4.4

A Dinesen Oil finish produces a strong surface. The floor must be dampened before the oil finish to enable sufficient oil saturation and thus optimum protection and distribution of pigments. This process improves the oil and colour saturation of the floor but prolongs the drying time.

• The oil-treated surface can be finished with lacquer, but lye cannot be used underneath lacquer.

Dinesen Oil, 2K	Recommended drying times
Neutral/Coloured	24 hours
Total	24-30 hours

Table 8



Figure 39: Dinesen Oil, 2K Spreading rate: approximately 26-30 m²/litre

#### Preparation

- 1. Wipe the floor with a wrung cloth or mop to dampen the surface evenly. This prepares the fibres of the floor to allow the oil to penetrate better.
- 2. Let the floor dry before beginning the oil finish.
- It is very important to prepare the floor by dampening it before the oil finish is applied. Otherwise, the floor cannot be saturated properly with oil.

#### Basic finish

- 1. Pierce both layers of the top of the container with a screwdriver to allow the hardener and the oil to mix. Wait one minute. Remove the lid and stir thoroughly.
- 2. Apply a thin coat of oil. Use a polishing machine with a white polishing pad. Work the oil into the floor for 15-30 minutes. Always work wet on wet. Add oil as needed to saturate the surface. Finish with a red pad to deal with any raised grain.
- 3. Excess oil should be removed immediately after the treatment using a polishing machine with cotton cloths.
- Make sure the floor is properly saturated.
- 4. Allow the floor to dry for at least 24 hours after the treatment. Optimal conditions for drying are a temperature of 20 °C and relative humidity of 45% in a ventilated room.

The floor may be used with caution, but the oil finish is still susceptible to marks and dents. Do not cover the floor with anything that traps humidity, subject it to heavy loads, expose it to dirt or wash it before it has attained maximal hardness, which happens after 5-7 days.

**CAUTION:** DINESEN 2K OIL CONTAINS DRYING OILS. RISK OF SELF-IGNITION. USED CLOTHS AND OTHER MATERIALS MUST BE PLACED IN WATER OR IN AIRTIGHT METAL CONTAINERS.

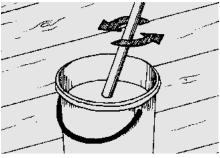
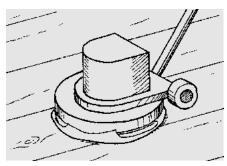


Figure 40: Stir

Figure 41: Polish (white polish roundel)



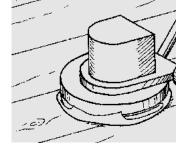


Figure 42: Polish (red polish roundel)

Figure 43: Excess oil should be removed (Use a polishing machine with cotton cloths)

# 4.5 Dinesen Oil, 2K and Lacquer | Oak, Ash

The treatment consists of an initial oil treatment which can be finished with lacquer. Lacquer seals the surface completely and is best suited for Dinesen Oak and Ash planks.

Douglas and Pine can also be lacquered, but please note that dents do not rise with floor washing, and that softwood floors in general get more dents than hardwood floors.

Dinesen recommends Bona Traffic HD Raw lacquer.

	Recommended drying times
Dinesen Oil, 2K	24 hours
Bona Traffic HD Raw lacquer	24 hours
Total	48-60 hours

Table 9



Figur 45: Bona Traffic HD Raw lacquer Spreading rate: 8-10 m²/litre



Figur 45: Dinesen Oil, 2K Spreading rate: ca. 20-30 m²/liter

## Preparation

In preparation for lacquer, the floor must be finished with Dinesen Oil,  $2\mbox{\rm K}$  . See section 4.3 for procedure.

## Application of oil:

## Preparation

- 1. Wipe the floor with a wrung cloth or mop to dampen the surface evenly. This prepares the fibres of the floor to allow the oil to saturate the wood better.
- 2. Let the floor dry before applying the oil.
- It is very important to prepare the floor by dampening it before before applying the oil. Otherwise, the floor will not appear with the desired pigmentation.

## Application

- 1. Use a screwdriver to pierce both layers at the top of the container to mix the hardener and the oil. Wait for one minute. Remove the lid and stir thoroughly.
- 2. Apply a thin coat of oil. Use a polishing machine fitted with a polishing roundel with cotton cloths. Work the oil into the floor to achieve uniform pigmentation. Always work wet on wet. Finish with a red polishing roundel to deal with any remaining raised grain.
- 3. Excess oil must be removed immediately after the treatment. Use a polishing machine with cotton cloths.
- 4. Allow the floor to dry undisturbed for at least 24 hours before applying the top coat of lacquer. Optimal conditions for drying are a temperature of 20 °C and a relative humidity of 45% in a ventilated room.

**CAUTION**: DINESEN OIL, 2K CONTAINS DRYING OILS. RISK OF SELF-IGNITION. USED CLOTHS AND OTHER MATERIALS MUST BE PLACED IN WATER OR IN AIR-TIGHT METAL CONTAINERS.

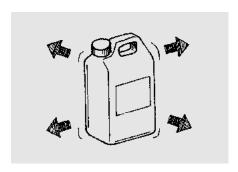


Figure 46: Shake the container

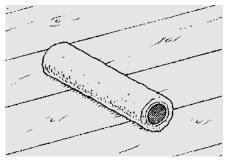


Figure 47: Apply lacquer, using a 16 mm applicator roll

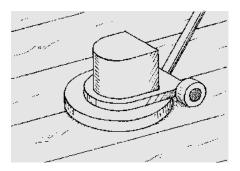


Figure 48: Interim sanding (bordeaux polish roundel)

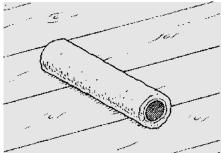


Figure 49: Apply another coat of lacquer using a short-haired mohair roller

## Preparation

In preparation, the floor is finished with Dinesen Oil 2K. The oil finish provides basic pigmentation and serves as a primer for the lacquer.

## Application of lacquer

- 1. Shake the container and then add 1 bottle of the corresponding hardener. Shake thoroughly for one minute and insert the filter.
- 2. Apply the first coat of lacquer evenly using a 16 mm applicator roll. Always make sure to apply the lacquer wet on wet to avoid overlaps.
- 3. Let the surface dry for three to four hours (at 20 °C and 45% RH in a ventilated room). If necessary, carry out an intermediate sanding, using a sanding net or 150-180 grit sandpaper. Then vacuum the floor.
- 4. Apply one or two additional coats of lacquer using the same procedure. Always follow the recommended drying times.
- If the drying time exceeds 24 hours, an intermediate sanding is necessary before you add another coat of lacquer.

The floor may be used with caution after 24 hours, but the lacquer finish is still susceptible to marks and dents. Do not cover the floor with anything that traps humidity, subject it to heavy loads, expose it to dirt or wash it before it has attained maximal hardness, which happens after 7 days.



Figure 46: Shake the container

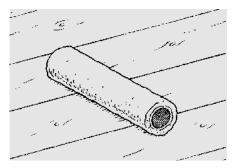


Figure 47: Apply lacquer, using a 16 mm applicator roll

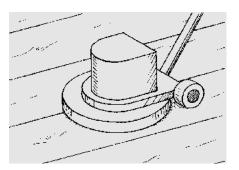


Figure 48: Interim sanding (bordeaux polish roundel)

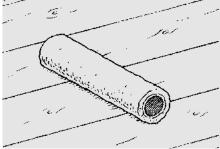


Figure 49: Apply another coat of lacquer using a short-haired mohair roller

# 5 Cleaning and maintenance

#### Cleaning

	Dinesen	Dinesen	Dinesen
	White/Natural Soap	Oil Soap	Cleaner
Dinesen Lye and Soap	✓		
Dinesen Oil, 2K		✓	
Lacquer			✓
Table 10			

#### Maintenance

	White/Natural Soap	2K Oil	Lacquer
Dinesen Lye and Soap	✓		
Dinesen Oil, 2K		✓	
Lacquer			✓

Table 11

# 5.1 Cleaning and maintaining a soap-finished Dinesen floor

Dinesen Floor Soap protects the wood against dirt and, to some extent, against spills. As long as the soap membrane is intact, the floor will remain beautiful and resistant to wear. If the membrane is breached, the wear will affect the wood directly, and dirt will be able to penetrate into the pores of the wood. Over time, the wood will come to look dry and depleted. It is therefore important to preserve the soap membrane and to renew it continually.

To establish a more resistant surface, we recommend that you wash the floor with Dinesen Floor Soap a few times before use.

Protect the floor against dents and scratches, cf. the description in section 2.4.3.

Vacuum the floor as needed to remove sand and other dirt particles quickly. Also always vacuum the floor before washing it. Use the soft setting on the vacuum cleaner head intended for hard floors.

#### 5.1.1 Cleaning and maintenance

Wash the floor as needed depending on the use of the room. The floor must be cleaned and the soap membrane must also be renewed. This means that the floor will need washing even if it is not dirty.

An otherwise clean floor may well have lost its soap membrane, which exposes the wood to wear and depletion. This is prevented if the soap membrane is intact.

When washing the floor it is a good idea to take the opportunity to check the state of the floor. If there are any worn or depleted areas, you may have to adjust the maintenance schedule.

Soap-finished floors can be washed with plenty of soapy water, which is subsequently mopped up.



Figure 50: Dinesen Floor Soap, White/Natural Spreading rate:  $16\ m^2/litre$ 

## Procedure

- 1. Shake the container vigorously. It is important to distribute the pigmentation and the wax evenly.
- 2. Mix 0.5 litre of Dinesen Floor Soap with 5 litres of lukewarm water. **1:10** Increase the amount of soap as needed.
- 3. Wash the floor in the direction of the grain.
- 4. Wash 3-5 m² at a time, and then mop up the soapy water. Wring the mop lightly and draw off any excess liquid in the direction of the grain. It is important to leave a small amount of soapy water to establish and maintain the soapy membrane.

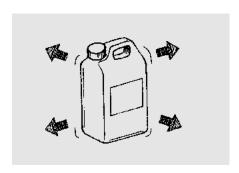


Figure 51: Shake the container

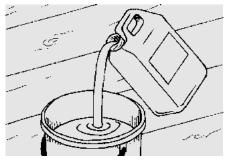


Figure 52: Pour

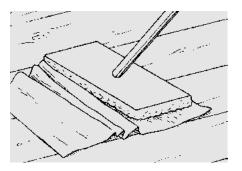


Figure 53: Wash

If the floor is very dirty, it should be washed with a white scrubbing sponge. Dip the sponge in the soapy water, and wash in the direction of the grain. Go back and forth a few times to make sure that the planks are clean. Wash 3-5 m<sup>2</sup> at a time, then mop up any excess water with a firmly wrung floor cloth or mop. After extra thorough floor washing, the soap membrane should be renewed as described above.

Be careful around the legs of tables and chairs to avoid discolouration from the soap over time. Rugs under furniture are folded up before floor washing and unfolded again when the floor is dry. With care, you may also wash up to the edge of the rug.

The colour of the floor may change considerably depending on whether you use Dinesen Floor Soap White or Dinesen Floor Soap Natural. Both variants provide the same quality protection and make the floor easy to clean.

A well-maintained floor is fairly resistant to spills. Grease, red wine, juice or sauce, for example, should simply be removed immediately with a paper towel or a cloth. For more difficult stains, use the white sponge. You may soak the stain in soapy water for half an hour and then repeat the treatment with the white scrubbing sponge. Do not push harder than necessary, and subsequently wipe the area with the floor cloth.

# 5.2 Cleaning and maintaining an oil-finished Dinesen floor

Dinesen Oil protects the wood from dirt and spills. As long as the oil membrane is intact the floor remains beautiful and resistant to wear. If the membrane is breached, the wear will affect the wood directly. Dirt and spills will be able to penetrate the pores of the wood, and over time, the wood will come to look dry and depleted. It is therefore very important to preserve the oil membrane.

#### 5.2.1 Cleaning (Oil)

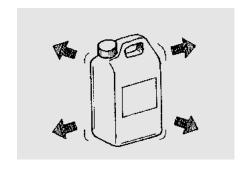


Figure 54: Dinesen Oil Soap Spreading rate: 125 m<sup>2</sup>/litre

#### Procedure

- 1. Vacuum the floor.
- 2. Shake the container.
- 3. Mix 2 decilitres of Dinesen Oil Soap with 10 litres of lukewarm water.
- 4. Wash the floor, going with the grain and using as little water as possible.

  Use a firmly wrung cloth or mop. Excessive use of water may damage the floor.
- 5. Do not leave the floor wet.



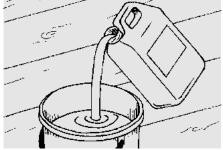


Figure 55: Shake the container

Figure 56: Pour

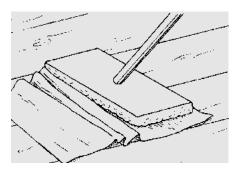


Figure 57: Wash

#### 5.2.2 Maintenance

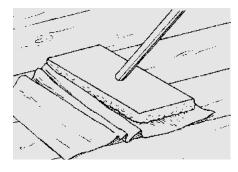
As needed, the floor should be treated with Dinesen Oil (the same oil that is used for the basic finish) to re-establish the oil finish and reseal the surface. You may choose to treat particularly worn areas only.

Please note that the oil surface should not be allowed to be worn away completely. If this has occurred, you should contact Dinesen for further advice.

# 5.2.3 Maintenance Dinesen Oil, 2K



Figure 55: Dinesen Oil, 2K Spreading rate: approximately 20-30 m²/litre



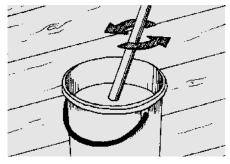
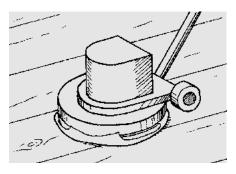


Figure 56: Wash

Figure 57: Stir



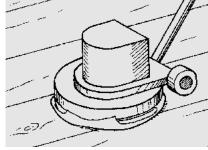


Figure 58: Polish (cotton cloth)

Figure 59: Excess oil should be removed (Use a polishing machine with cotton cloths)

#### Procedure

- 1. Wash/clean the floor thoroughly to remove surface dirt. The floor should be without any wax or soap residue.
- 2. Pierce both layers of the top of the container with a screwdriver to allow the hardener and the oil to mix. Wait one minute. Remove the lid and stir thoroughly.
- 3. Apply a thin coat of oil. Use a polishing machine with a white polishing pad. Work the oil into the floor for 15-30 minutes. Always work wet on wet. Add oil as needed to saturate the surface.
- 4. Excess oil should be removed immediately after the treatment using a polishing machine with cotton cloths.
- 5. Allow the floor to dry for at least 12 hours after the treatment. Dinesen recommends 24 hours.
- Optimal conditions for drying are a temperature of 20 °C and relative humidity of 45% in a ventilated room.

**CAUTION:** DINESEN 2K OIL CONTAINS DRYING OILS. RISK OF SELF-IGNITION. USED CLOTHS AND OTHER MATERIALS MUST BE PLACED IN WATER OR IN AIRTIGHT METAL CONTAINERS.

# 5.3 Cleaning and maintaining a lacquered Dinesen floor

The lacquer finish seals the surface completely and makes the floor easy to clean. However, if the floor is very worn, it is necessary to re-lacquer it. Scratches in the lacquer allow dirt to penetrate into the plank and do harm to the wood. It is therefore necessary to re-lacquer the floor before the lacquer is worn through.

Vacuum the floor as needed to remove sand and other dirt particles quickly and prevent them from scratching the floor. Always vacuum the floor before washing it. Use the soft setting on the vacuum cleaner head intended for hard floors.

Wash the floor as needed depending on the use of the room. When washing the floor it is a good idea to take the opportunity to check the state of the floor. If there are any worn or depleted areas, you may have to adjust the maintenance schedule.



Figure 60: Dinesen Cleaner Spreading rate: approximately 250 m²/litre

## 5.3.1 Cleaning

- 1. Vacuum the floor.
- 2. Shake the container.
- 3. Mix 1 dl of Dinesen Cleaner with 10 litres of lukewarm water.
- 4. Wash the floor, going with the grain and using as little water as possible.

  Use a firmly wrung cloth or mop. Excessive use of water may damage the floor.
- 5. Do not leave the floor wet.

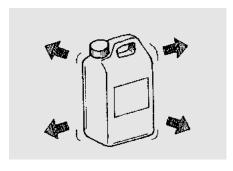


Figure 61: Shake the container.

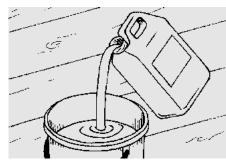


Figure 62: Pour

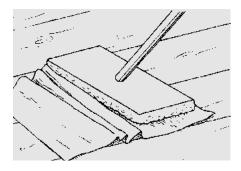


Figure 63: Wash

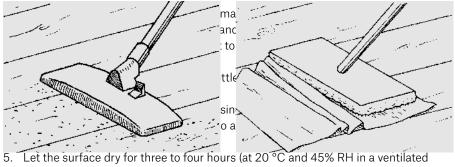
## 5.3.2 Re-lacquering



Figure 64: Bona Traffic HD Raw lacquer. Spreading rate: approximately 8-10 m²/litre, at two coats

## Procedure

1. Wash/clean the floor thoroughly to remove surface dirt. The floor should be without any wax or soap residue.



5. Let the surface dry for three to four hours (at 20 °C and 45% RH in a ventilated Figuro 6 m). If the cessary, carry out an intermediate sanding, using a sanding net or 150-180 grit sandpaper. Then vacuum the floor.

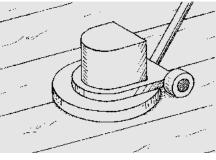


Figure 67: Sand the floor

al coats of lacquer using the same procedrying times.

intermediate sanding is necessary before you

## 5.4 Using a floor-washing machine on a soap-finished Dinesen floor

Floor-washing machines can be used on finished Dinesen floors. Floor-washing machines are best suited for oil-finished and lacquered floors. A soap-finished floor requires special precautions.

The floor-washing machine should be able to wash and dry (absorption) and have a rotating washing head (disc), for example a type 451 or 755 from Nilfisk Advance or a Genie from FIMAP. Attach a soft brush for wooden floors on the washing head and use a soapy mix of 0.5 litre of Dinesen Floor Soap to 5 litres of lukewarm water. **1:10**. Wash the floor in the direction of the grain.

We recommend washing soap-finished floors manually. If a floor-washing machine is used, always combine the cleaning with damp-mopping to ensure sufficient cleaning and re-establishing of the soap membrane.

The clean floor is damp-mopped as needed (for example after every third floor-washing) with a mop or a cloth wrung in a soapy mix consisting of 0.5-1 litre of Dinesen Floor Soap to 5 litres of lukewarm water. **1:10/1:5.** 

Damp-mop in the direction of the grain. After damp-mopping, the floor surface should be left damp but not wet. If the soap membrane is not re-established, the floor will be depleted and the wear will increase.

# 5.5 Getting off to a good start with your new floor

Whether your floor is finished with soap, oil or lacquer, it is important to establish the right care and cleaning routines from the beginning in order to ensure a durable floor that remains beautiful over time.

You may have heard that the more often you wash your floor, the better – but that is a misconception. Your floor should only be washed as needed, and always using the recommended products.

Correct sanding and finishing will have a big impact on the future performance of your floor. The surface of the floor should not feel dry, rough or uneven.

Temporary coverings used by various contractors during the building process, inadequate drying times or in-depth cleaning just before the floor is put to use for the first time can take their toll on the floor and may deplete the protective effect of the surface membrane before the hand-over. Therefore you should make sure the floor was not damaged during the final stages of the construction process, when time is often tight.

## Soap

When your floor technician hands over the floor, it is sanded, finished, polished and ready for use.

The floor should be smooth with a pleasant, velvety feel. If the soap rubs off, leaving white residue on the soles of your footwear, this is simply an indication that there is plenty of soap on the surface. Avoid removing too much of the excess soap.

Repeated washing over the first couple of weeks does not have a positive impact on the surface membrane. Instead, you should keep an eye on your floor and wash it – and thus add more soap – as needed.

Washing as needed but never more than once a week for the first couple of months, unless Dinesen has made other recommendations. Always use Dinesen Soap, white or natural.

A soap-finished floor develops its optimal membrane gradually, and over time, the floor will thus become easier to wash, as the soap builds up in the wood and the wood naturally hardens.

## Oil and lacquer

When your floor technician hands over the floor, it is sanded, finished, polished and ready for use.

Always let the oil harden before you use the floor, and wait as long as possible before you wash it.

Oil and lacquer are hardening surface membranes that benefit from being left alone. Thus, a floor with an oil or lacquer finish requires less attention over time than a soap-finished floor.

The floor should be washed as rarely as possible and using a minimal amount of water, as every washing removes a tiny part of the protective surface. Washing the floor using Dinesen Cleaner does not add any care substances.

## 6 Pitfalls

The first condition for a successful surface finishing is good sanding. Errors and shortcomings in sanding are carried on to the following finishes and will also affect the end-result.

We strongly recommend that you first carry out the finishing on a trial surface or at least on some cut-off wood. As mentioned above, sanding has a major influence on the resulting colour tone, and it is important to check the colour etc. before finishing the entire floor.

## Lye finish

#### Lve

Using the wrong lye may discolour the floor. Depending on the lye type and its aggressiveness, the end-result may be a greenish or reddish appearance.

## Oil finish

#### Pre-dampening

It is very important to pre-dampen oak planks before applying an oil finish to ensure that the wood is evenly damp before the finishing process. If the dampening is uneven, or if the floor is not pre-dampened at all, it will not be possible to achieve optimal saturation. Proper pre-dampening is especially important when using a colour oil to ensure that the pigmentation is distributed evenly. Otherwise, there is a risk that the colour will not turn out as expected or that there will be considerable variation across the floor surface.

#### Insufficient amount of oil on oak

If oak planks are not sufficiently saturated with oil there is a risk of tannin spots, which appear as dark blemishes or stains on the floor. If the wood is not sufficiently saturated with oil, there may be white or light areas on the surface. These stains typically appear as a result of small water spills.

### Uneven oil coat

Appears as pools of oil and typically occurs when excess oil has not been removed in connection with the finishing process.

## Lacquer

When applying a lacquer finish, it is especially important to ensure that the floor is sufficiently saturated with oil, as there is otherwise a risk of lacquer bind. In oak, there is also a risk of tannin stains.

## Miscellaneous

### Adhesive tape

We advice against any use of adhesive tape directly on finished or unfinished floors.

### Metal buckets

Finishing products in metal buckets/tins need to be stirred. Shaking is not enough.

7 FAQ

1. Is it necessary to sand the floor planks before finishing the floor?

**Answer:** Yes. Correct sanding of the floor after it is installed and before it is finished is necessary to eliminate tiny variations in level between the planks and ensure a uniform surface.

2. Is it necessary to sand and finish the floor immediately after the installation?

**Answer:** No. However, if sanding and finishing are done later, we recommend that you cover the floor with diffusion-open grey flooring cardboard (400  $g/m^2$ ). Please note that partial covering of the unfinished floor may lead to colour variations due to the effect of sunlight on the wood.

3. Can I sand and finish the floor myself?

**Answer:** In principle, yes. However, we strongly recommend that you have a certified and experienced floor specialist do the job. Correct sanding and finishing are very important for the appearance of the floor and ensure a uniform surface that is easy to maintain after installation.

4. What is the best finish for a Dinesen floor?

**Answer:** The best choice of finish depends on the wood type and, not least, on the use of the floor and cleaning and maintenance practices. See paragraph 1,

or contact our technical department for a more thorough review and assessment of your specific project.

5. Why is it important to use only Dinesen Floor Soap White or Dinesen Floor Soap Natural on a soap-finished Dinesen floor?

**Answer:** Dinesen Floor Soap White and Dinesen Floor Soap Natural ensure a resistant surface. This soap is developed especially for Dinesen planks and forms a protective soap membrane. It is easy to adjust the colour of the floor

by switching between the two variants.

6. How do I prevent damage to the floor?

**Answer:** To prevent damage, follow the recommendations for care, maintenance and cleaning. Keep an eye on the floor, and deal with any problems in a timely fashion. In that way, you can ensure a beautiful floor through normal care and maintenance and prevent problems that would require more thorough repairs.

7. Can I change the finish on a floor which has already been finished?

**Answer:** Yes. However, that will require renewed sanding and finishing. It is therefore always an advantage to choose the right finish from the outset.

# 8 General guidance

# 8.1 Dinesen instructions

Before installation Installation After installation Pattern

See also our detailed instruction videos concerning sanding, finishing, floorwashing and maintenance on dinesen.com. The instruction videos are only to be seen as a supplement to our instructions.

# 8.2 Literature

Træinformation: "Træ 79" (traeinfo.dk)

Dinesen's instructions are based on Danish building codes and regulations. Reservations are therefore made for national codes of practice. Please note that we can only offer advice about our own product, and thus, any additional advice lies outside the service we offer. Other building components and products require a degree of knowledge and insight that makes it necessary to seek advice from a specialist. Dinesen thus does not offer advice about the positioning of insulation and vapour barriers. As we have no control over the actual quality of workmanship, materials used and worksite conditions, these written instructions do not constitute an implied warranty of any kind. The illustrations in this document are strictly intended as a guide.

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