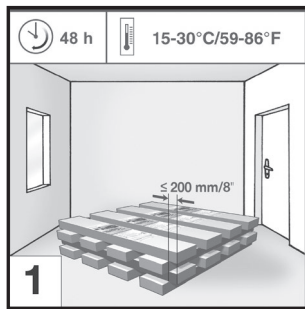


# kronoXonic - Installation

## 1. Inspection and diligence obligations

Before and during laying, these instructions are to be followed at all times. Please first read through these laying instructions in full. Please follow these instructions precisely to retain your full warranty entitlement.



Krono Xonic is manufactured in defined and high-precision work stages. Semi-finished and finished products are subjected to stringent and continuous quality control checks. However, damage to individual panels, e.g. during transport, cannot be ruled out entirely. Please check the condition of the flooring panels prior to laying.

Please be aware of the relatively heavy weight of the packages when transporting them. The following tips may assist with transporting loads in a manner that avoids back injury:

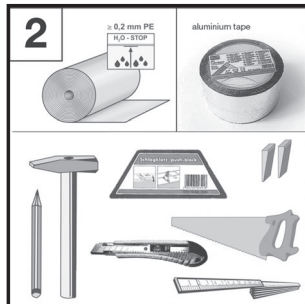
- Keep your spinal column stable: keep your back straight and tighten your stomach and pelvic floor muscles. Use the power in your legs for lifting.
- Avoid jerky movements or sideward rotations: If an item needs to be turned over, lift the item, take a pace to the side and then place it down. Remove obstructions beforehand and clear a space.

**Preparation:** Before laying, please store the packs under the same climatic conditions as will be experienced during laying and subsequent use [1]. Do not store in direct sunlight in front of a window.

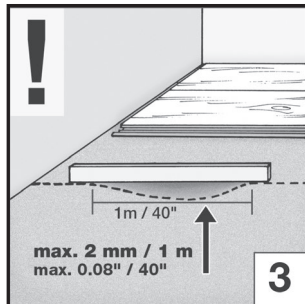
This acclimatization is to be carried out under the following conditions:

- If stacked, turn the layers through 90°
- Over a period of at least 48 hours
- Lay flat with a minimum gap of 50 cm to all walls and absolutely level.

Please ensure that the panels are handled carefully at all times when working. Work with both hands, and avoid sliding panels using your feet, as the profiles may become damaged.

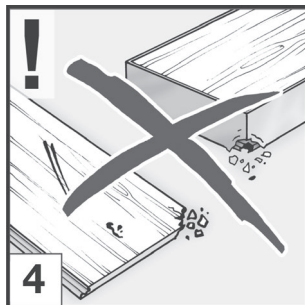


**Materials and tools needed:** Use original accessories for this flooring. The following tools and materials should be used to assist with laying: Pencil, a folding ruler, set square, spirit level and spacers (1 mm, 10 mm), hammering block, and hammer [2]. In addition, it is recommended that a craft knife and handsaw is used for any cutting. The saw blades for this should be fine-toothed. It is also possible to use a jigsaw or circular saw with fine-toothed blades. Warning! Cut and broken edges may be sharp and may cause injury if handled carelessly. Skirting-boards in matching decorations are available from the range of accessories for the junction with the wall. Please ensure that the movement of the floor is not restricted and that no moisture penetrates the joints of the construction in wet rooms.



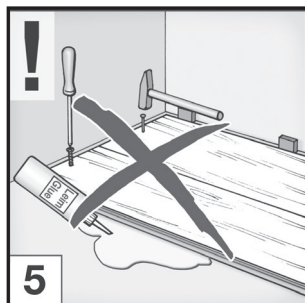
**Substrates for laying, and sealing:** The product is suitable for wet rooms. Wet rooms, as defined in DIN 68800, are rooms with long-term or permanent continuous air humidity above 70%. Krono Xonic is not suitable for use in outdoor areas and in wet areas. Typical areas for use of this product are living rooms, bedrooms, bathrooms, kitchens, dining rooms, hallways, offices, stores, lobbies, medical practices, hotels, corridors. All other usages must be checked and are not covered by the warranty obligations.

The substrate for laying the panels must be such that the flooring panels can be laid in accordance with the manufacturer's instructions (product insert). Suitable substrates include mineral substrates (such as floor pavements, water-based heated screed, concrete, and asphalt). Please note that the construction of the substructure must conform with the recognized engineering regulations for drywall construction in wet rooms.



The underfloor must be absolutely level, dry, clean and capable of bearing loads. Any unevenness in the floor which is greater than 2 mm over at least 1 m must be leveled by professionals (per DIN 18202) [3]. The evenness of the substrate can best be determined using a straightedge or a 250 cm spirit level, as per the current standards. No offsets, steps or similar unevenness must be present. Construction dirt such as residues of render or plaster or similar must be removed completely.

In order to keep wall sections and floor substrates of all kinds in wet rooms permanently sealed and watertight, it is recommended that a paintable seal be applied. We refer expressly to the ZDB Code of Practice (01/2010) "Hinweise für die Ausführung von flüssig zu verarbeitenden Verbundabdichtungen mit Bekleidungen und Belägen aus Fliesen und Platten für den Innen- und Außenbereich" ("Notes for the execution of bonded waterproof membranes to be applied in liquid form with claddings and coverings of tiles and panels for interior and exterior areas") in relation to the working of substrates, and particularly the sealing of walls and floors in wet rooms. The flooring does not serve as a water-carrying layer, and is not permanently watertight due to its click profiles. As a precautionary measure to guard against the penetration of moisture into the substrate, a PE film glued to the joints can be used.



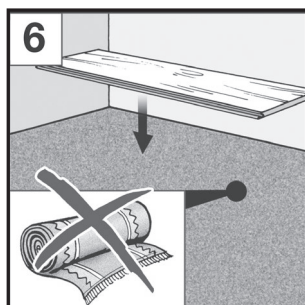
Check the panels in good light for defects [4]. Boards with visible defects outside the applicable tolerances, such as deviations in height, shine, dimensions and color, are to be put to one side and are replaced free-of-charge. Once panels have been used, you are no longer entitled to submit complaints.

The product is laid as a floating floor and must not be screwed, nailed, glued or attached to the underfloor at individual points, e.g. using door-stoppers or heavy objects [5].

If gluing is required, the following adhesives have been tested and approved by the manufacturer:

- 1) UZIN KR 430
- 2) UZIN KE 66
- 3) UZIN KE 2000 S

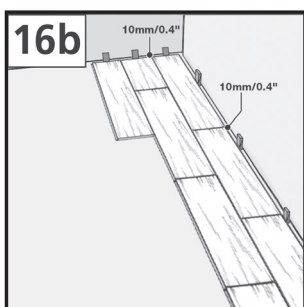
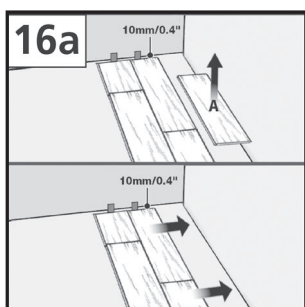
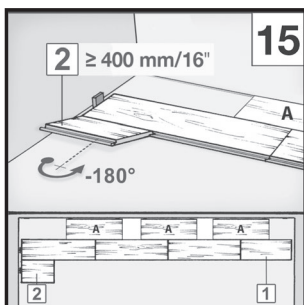
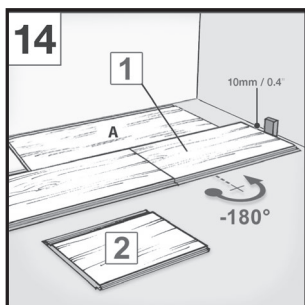
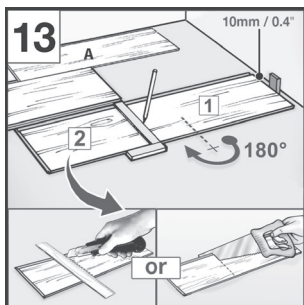
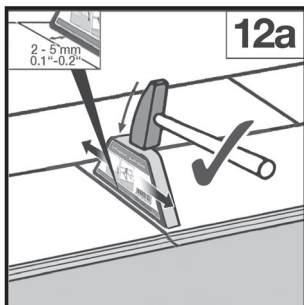
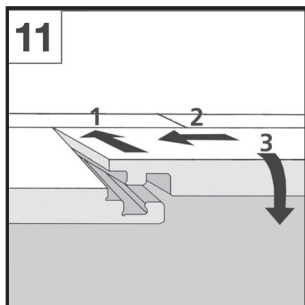
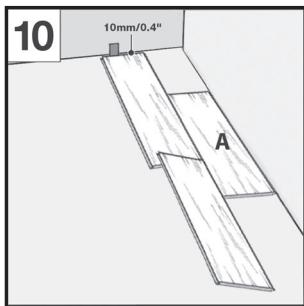
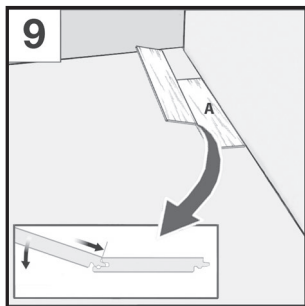
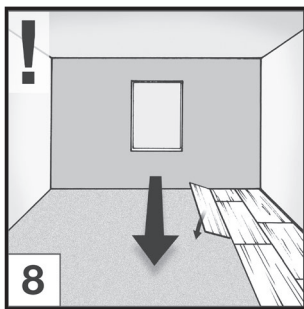
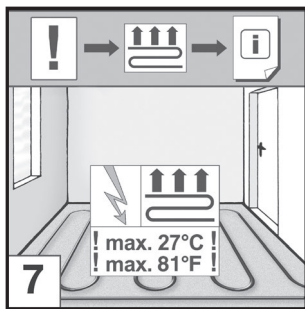
Other adhesives are to be agreed with the adhesive manufacturer for the proposed application. The layer has an obligation under the warranty to ensure professional gluing. On 5 mm products, it must be checked beforehand that sound insulation is removed cleanly from the underside.



No underlay material is to be laid beneath the 5 mm product which has a foam coating on the reverse. A PE film can be laid beneath the 4 mm product to reduce movement sounds caused by unclean substrates as well.

If the customer wishes to lay an underlay mat beneath the 4 mm product, then only products with a compression strength > 200 kPa and a thickness < 2 mm are permitted.

Carpets, foamed PVC floors and all types of foam materials must always be removed [6] and are not suitable substrates. Otherwise, when the surface is walked on the consequence could be a sprung motion and strong pressure in the edge region, which can lead to gaps forming. Carpets must also be removed for hygiene reasons. Areas subjected to humidity can result in mold and bacteria forming.



The use of underfloor heating (hot water/electric) is only possible if laid by professionals and on condition that the heating operates properly. The supply and installation of underfloor heating must be state-of-the-art, and it must be taken into service by a specialist enterprise in accordance with the corresponding heating criteria. Underfloor heating must be laid and operated across the full area of the room. Partial underfloor heating is not permitted. A temperature of 27°C on the surface adjacent to the underside of the flooring should not be exceeded at any time anywhere over the area [7].

A build-up of heat underneath under any covered areas, such as carpets, must be avoided in all situations. Any complaint in connection with the operation or fitting of underfloor heating is excluded. Claims are solely permitted under the scope of our general warranty and guarantee provisions.

For underfloors with and without underfloor heating, the specialist installer must make and record the necessary CM measurement prior to installing the floor. The following limit values apply for residual humidity:

- For calcium sulphate screed, max. 0.5% CM without; 0.3% CM with underfloor heating
- For cement screed, max. 2.0% CM without; 1.8% CM with underfloor heating

#### Laying

It is recommended that you sort the panels prior to laying to ensure the desired graining pattern and possibly the decor pattern. Please also find out about variations in color.

Ensure that the installation is tension-free. To guarantee this, an edging distance of at least 5-10 mm all round to walls, pillars, etc. is specified as essential [10]. For e.g. an 8 m laying run, a min. 5 mm gap should be chosen and for the maximum laying run of 20 m, the gap should be at least 10 mm all round. The movement gaps may not be filled with cables or other materials. Expansion gaps must always be installed between rooms or in rooms with complex floor plans. Where e.g. a living room adjoins a bedroom, i.e. rooms with different usage temperatures, a floor separator must be installed, otherwise it may result in tension together with associated damage. In accordance with current technology status, all gaps from the substrate that are required for technical reasons are to be transferred into the flooring, e.g. movement gaps between areas of screed. Damage to the flooring may result if such gaps are bridged.

Where windows extend to the floor level, it must be ensured that there is adequate shading, ventilation and tension-free installation. The sun shining in can cause temperatures to rise considerably and may result in permanent deformation of the flooring. Keep variations in temperature to a minimum. The floating floor must not be impeded in any area by dimensional changes due to temperature change.

It is not permitted to fix the floor in any manner. A temperature increase e.g. from 15°C to 30°C causes a change in dimensions of approx. 0.5 mm/m. If the temperature increases to 40°C, the change is then 1.0 mm/m. The flooring behaves similarly as the temperature reduces. At temperatures below 10°C, the change in dimensions is very slight. Room temperatures of -40°C to +45°C are permitted. Higher temperatures may result in permanent deformation of the floor. At temperatures below 0°C, the flexibility of the product diminishes.

Recommendation: Lay the panels with their length running in the direction of the main light source. A natural range of coloring is achieved due to the highly-precise decor printing process. For that reason, always lay the panels using a mix from several packs, since that way you can influence the color effect of your floor in the space.

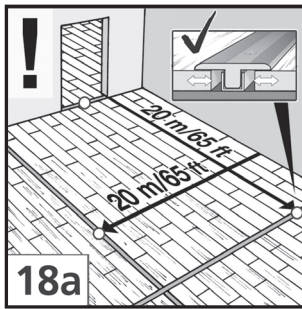
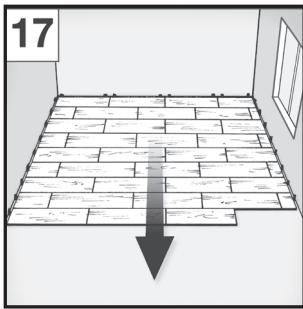
First, the dimensions of the room should be measured to determine whether the first row of panels may need to be reduced in width. If the walls are not straight, transfer the run of the wall to the first row of panels and trim the panels accordingly. If the last row of panels has a width of less than 19.2 cm, you should divide up the width of that remaining gap evenly between the first and last row of panels, so that both rows are cut to fit with the same panel width. If the remaining gap is less than 10 cm, you must divide up the width of the remaining gap evenly between the first and last row of panels, so that both rows are cut to fit with the same panel width. The tongue and groove profiled parts do not count as part of the expansion gap and must be removed. Please check which is the tongue side and which is the groove side on the panels.

Start to lay the panels in the left-hand corner of the room. Lay the first panel with the short and long tongue side towards the wall and ensure the edge spacing using spacers [9]. Click in a second panel on the end face (short side) with the tongue onto the groove profile of the previously-laid first panel by placing it onto the opposing profile side of the first panel [10] and then tapping it in using the hammering block and hammer [12a]. Ensure that the lengthwise edges are lying in a single alignment, with no offsetting and producing a straight line. This is necessary in order to be able to insert the panels without gaps into the lengthwise profile when laying the second row of panels. Click in further panels until the end of the first row is reached.

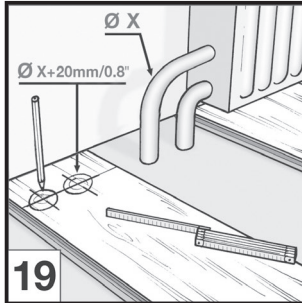
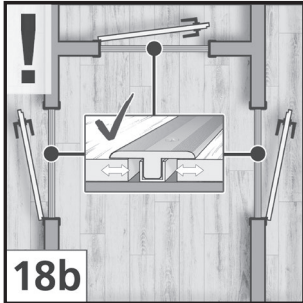
Rotate the last panel in the first row by 180° for trimming in or cutting to fit [13], placing it with the decor side facing upwards alongside the row that is already in place (grooved face to grooved face) and side of the wall. Take into account the edge spacing of 5-10 mm on the end face. Mark the panel length and saw to length. To avoid the edge splintering, the decor side should be face down when using electric compass saws or hand-held circular saws. Otherwise saw from the top side of the panel. Start each new row with the left-over piece (at least 40 cm length) from the previous row [15].

Start the second row either with a half-panel or the left-over piece from the first row. When doing so, make sure that the panel is not shorter than 40 cm nor longer than 90 cm. The joint offset (offset on the joints running crosswise) needs to be at least 40 cm from row to row in each case (please pay attention to the pattern of joints with stone decors). Arrange the panel elements in the second row in such a way that the long sides





of the panels in the first and second rows are lying parallel over one another. Lift the panel element on the long side facing into the room (groove side) by approx. 30-40 cm (at an angle of approx. 20°). The tongue of the panel in the second row slides into the groove on the first row in the raised area. Carefully lower the panel until it is lying flat on the substrate. To lay the second panel in the second row, again firstly place its lengthwise side tongue at an angle from above into the lengthwise groove in the first row (at an angle of approx. 20°). Now slide this panel in this angled position towards the facing side of the first panel in the second row until the tongue on the facing side and the groove in the second panel are lying over one another in a perfect fit. Now slowly lower the panel until the profiles are lying over one another. Now, using the hammering block, place this parallel to the short side directly over the profile and hammer the profile in to lock it in place [11, 12a].



Repeat this process along the whole of the second row (zip fastening procedure), until the first and second rows are laid together without gaps and with no height offset. When attaching the first and second row, ensure without fail that the panels are laid with no offset along the lengthwise side. The subsequent rows are then laid as for the 2nd row, taking into account the need for an adequate offset in the joints running cross-wise. In the final row, due allowance again needs to be made to ensure a tension-free fit (with an expansion gap of at least 5-10 mm to the wall).

For heating pipes, holes must be cut that are 10 -20 mm bigger than the pipe diameter [19]. Cut out the "trimmed piece", glue it, fit it in place and fix it in position using a block until the PVC glue has hardened [21]. Then mask the cut-outs with radiator sleeves.

Shorten wooden door frames so that a panel can fit underneath including a 2-3 mm gap [22, 23].

After laying, remove the spacers. To finish off, attach the skirting board guide tracks to the wall, and insert the skirting that has been cut to fit [26a].

#### Care and use

Areas in front of fires should be adequately protected against radiation heat and glowing embers/falling objects. Immediately after laying, all movable furniture is to be fitted with firmly-attachable felt pads. Use only soft-tread, migration-free castors (EN 12529 Type W) [30] with a light-colored tread. If necessary, also lay a protective mat beneath the roller area.

If exposed to extended intensive incoming sunlight, the floor may exhibit deformations. To avoid this, ensure shading or take steps to achieve a similar effect [32]. In addition, avoid strong heat radiation from sources of heat. In the event of more sustained deviations from the room's usual temperature, this may result e.g. in changes to the dimensions of the floorboard or to bulging in part areas. Complaints which are attributable to the effect of non-permitted temperatures are not recognized.

Ensure that when using underfloor heating there is no build-up of heat below covered areas (e.g. carpets and furniture). A max. temperature of 27° C must not be exceeded beneath the covering. Flowerpots and vases, etc. must be placed on a drip tray which will collect any water as otherwise mold may form and there may be associated discoloration.

Warning! In entrance areas, please use an adequately-sized mat to trap dirt, in order that no stones and other materials adhering to the soles of shoes which might damage the floor are carried further into the room.

Glass splinters and other aggressive materials which damage the surface of the floor are to be removed immediately. Spilled liquids are to be wiped up or removed as quickly as possible.

Car tires and rubber mats may result in color changes to light- and mid-colored decors. Special applications of substances which cause stains (e.g. hair dyes in hairdressing salons) should be checked beforehand on a test piece. Discolorations which cannot be removed may occur.

#### Cleaning

Remove loose dirt by sweeping or using a vacuum cleaner that is suitable for hard floors.

Only use designer floor cleaners from the Add 2 range of accessories for end-of-construction, basic and maintenance cleaning.

#### End-of-construction and basic cleaning:

Remove coarse dirt by sweeping or vacuuming. For heavily soiled areas, dilute the designer floor cleaner in the ratio of 1:10 (1 liter of floor cleaner to 10 liters of water), and for lightly soiled areas, reduce the concentration level in accordance with the degree of dirt.

Distribute the cleaning solution over the flooring and clean off the surface after a short time to allow the solution to act. Soak up the loosened dirt with absorbent wide-wipe mops, and on larger areas using a spray extractor appliance fitted with a hard floor adapter. Wipe down with clean water to neutralize.

#### Routine cleaning:

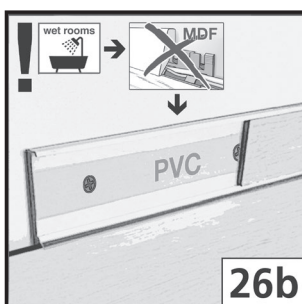
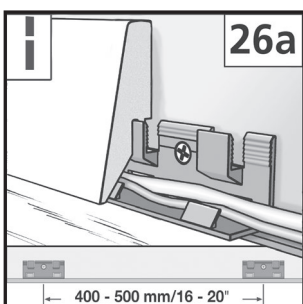
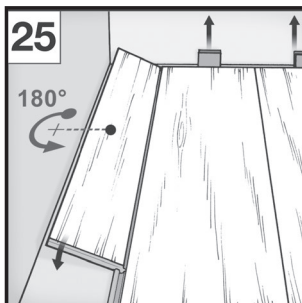
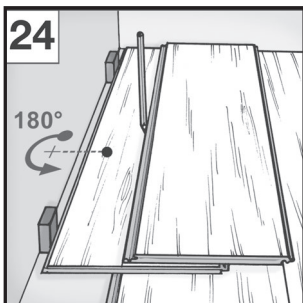
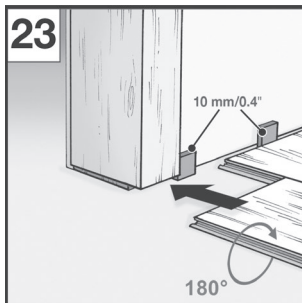
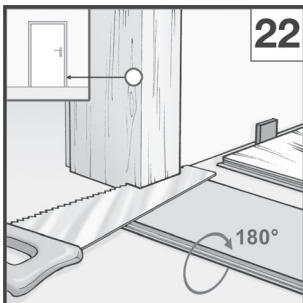
Dilute the designer floor cleaner in a ratio of 1:200 (50 ml of cleaner to 10 liters of water) and wipe the floor with this solution.

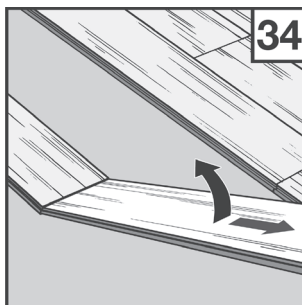
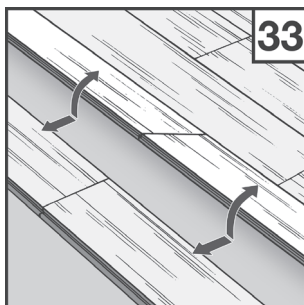
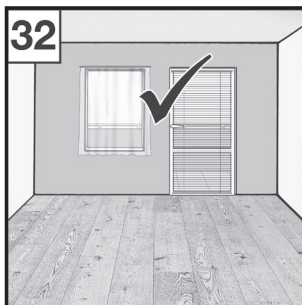
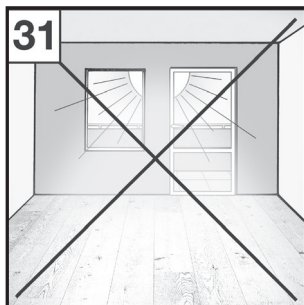
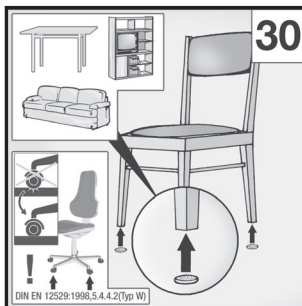
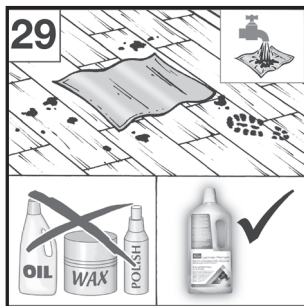
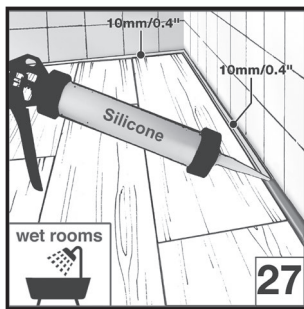
Note: Do not make sensitive surfaces (e.g. wood, metal) wet with the loosened dirt.

#### Consumption of cleaner:

Approx. 2 liters per 100 m<sup>2</sup> (end-of-construction cleaning)

Approx. 0.1 liters per 100 m<sup>2</sup> (maintenance cleaning)





#### General remarks:

Always clean textured surfaces in the direction of the texture. Footmarks and dirt can be wiped off with a wrung-out damp cloth. Please also comply with the instructions on the product label.

Polishes and cleaners with care additives such as wax, oil, etc. are not suitable for treating the flooring surfaces. The flooring should not be polished. Please do not use steam cleaning devices, wire pads or nylon scouring pads, furniture polish, powder or liquid scouring agents, bleaches or other powerful cleaning agents. If these instructions are followed, you will help to maintain the value and good looks of your flooring and preserve your full warranty.

#### Lifting or removing panels

It is possible to replace or remove panels that have been laid as a floating flooring in living areas and commercial areas without damage by first releasing the whole row along the long side by angling it [33] to free it from the locking mechanism. After this, the panels are similarly loosened from the locking mechanism on the facing edge by angling it [34]. Please be particularly diligent and careful when undertaking this work in order to avoid damaging the tongue-and-groove sections.

#### Disposal

Contact your regional disposal agency so that the material can be disposed of via recycling. The waste code for e.g. Europe is 17 02 03.

#### Information concerning the warranty

The initial user is guaranteed that the product is free of manufacturing defects under normal conditions at the time of purchase by the initial customer. The warranty covers abnormal changes in the product, where the instructions in the installation instructions have been complied with. The warranty covers replacement of defective floorboards with boards of similar quality at the time of a justified complaint. The warranty does not include any financial compensation and no reimbursement of costs for dismantling the damaged floor and installing the new floor. The warranty does not extend to normal abrasion and normal wear and tear, damage and change due to a failure to observe the installation instructions, incorrect cleaning methods or incorrect cleaning materials, improper use of the floor, damage from heavy objects and their incorrect movement, damage from dirt, sand, splinters, and damage through scratches.

<http://www.krono-original.com>

<http://www.zdb.de/zdb.nsf/0/F379B86C6C1F8306C12576BA003497AC>