

kronoXtreme-Fitting instructions

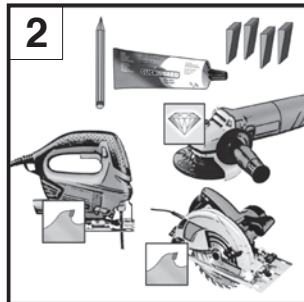
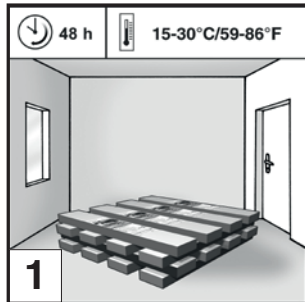
1. Requirements for verification purposes and duty to take due care

These instructions are to be observed at all times - before and during fitting routines. Before commencing fitting routines, please read through these fitting instructions in full, first of all. Please follow these instructions exactly in order to safeguard full warranty rights.

Krono Xtreme is manufactured in defined and highly precise work stages. Semi-finished and finished products are subjected to stringent and ongoing quality control verifications. However, damage to individual boards, e.g. during transport, cannot be ruled out entirely. Please check the condition of the flooring boards prior to fitting.

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

- Keep the spinal column stable: Keep your back straight and tighten your stomach muscles and pelvic floor muscles. Use the power in your legs for lifting.
- Avoid jerky movements or sideward rotation: If anything is to be shifted, lift the item, take a pace to the side and then place on the ground. Remove obstructions and clear a space beforehand.



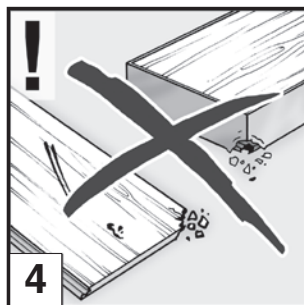
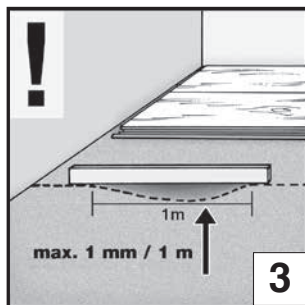
Preparation:

Before fitting, please store the packs under the same climatic conditions as will be experienced during fitting [1].

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

- With the packages stacked
- Over a period of at least 48 hours
- Lay down flat with a minimum gap of 50 cm to all wallings

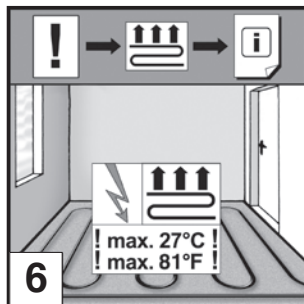
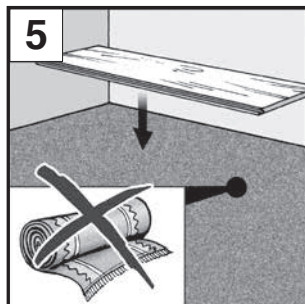
Please ensure that the boards are handled carefully at all times when working. Work with both hands, and avoid shifting boards by just using the feet. This could damage the profiles.



Materials and tools needed: The following tools and materials can be used to assist with the fitting: A pencil, a folding rule, set square, spirit level and spacing pieces (1 mm, 5 mm). In addition, a slow-running hand-held or table-mounted circular saw with a suitable blade for mineral-bound fiber boards and an efficient dust extraction unit is recommended for cutting purposes. The saw blades should be fine-toothed and with hard metal or diamond tips. When using sash saws with a hard metal-tipped saw blade, the cut should be made without any jigsaw action [2]. In domestic rooms, matching décor skirting boards may be used (but not in moist rooms).

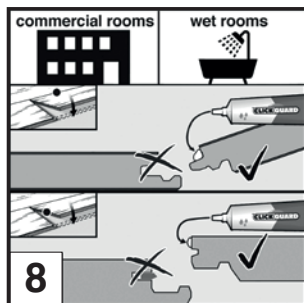
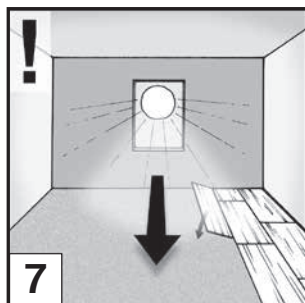
In addition, for moist rooms and for commercially-used areas, the use of ClickGuard (www.clickguard.de) is advised to seal the tongued- and grooved jointings [8].

In the humidity range, you need silicone for sealing the joints. Adhesive is also recommended for connecting the panels with the subfloor. For adhesion, an ultra-flexible, multifunctional reaction hydrosilicon-based adhesive with mineral fillers and additives (e.g. Ceresit Bautechnik CM 77 UltraFlex) is recommended. Furthermore, cement-containing mortar (e.g. flex adhesive in accordance with EN 12004-2007, at least type C2) can be used. A contact primer (e.g. Ceresit CT 19) and a paintable sealing film (e.g. Ceresit CL 51) are recommended for application onto the substrate, where it cannot be reliably demonstrated that a permissible seal is already in place. When there is a very high load, adhesion should also be provided for the purpose of protections (e.g. for load transportation using pallet trucks) [9c].

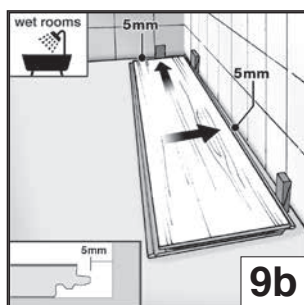
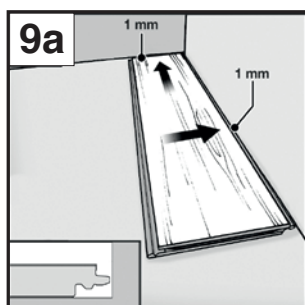


Substrate for fitting: Krono Xtreme is suitable for moist rooms. Moist rooms, as defined in the German Industrial DIN Standard 68800, are rooms with long-term or permanent continuous air humidity above 70%. Krono Xtreme is not suitable for use in outdoor areas.

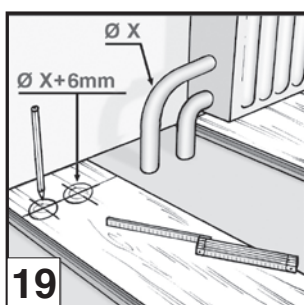
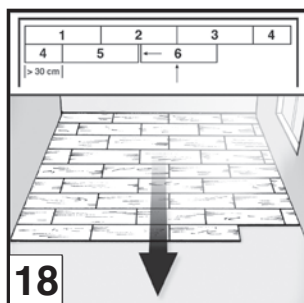
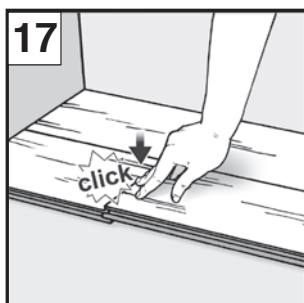
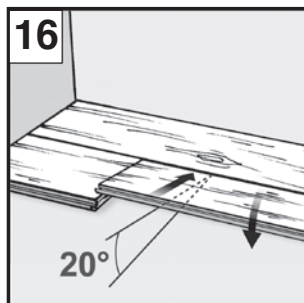
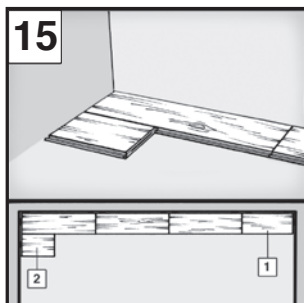
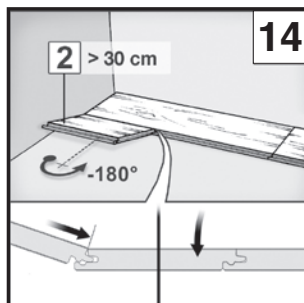
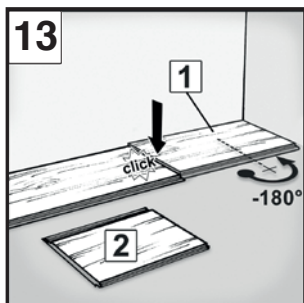
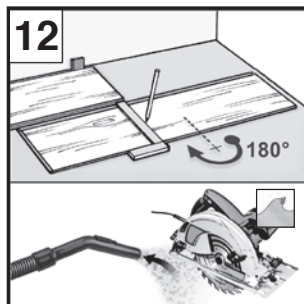
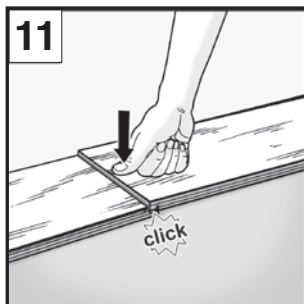
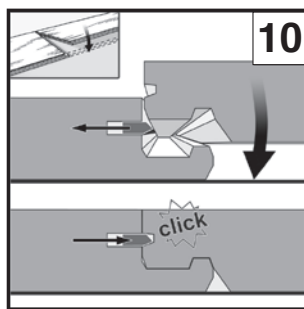
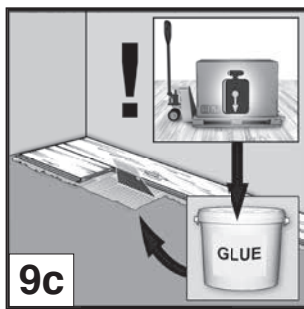
The substrate for fitting the boards should be such that the flooring boards can be fitted in accordance with the manufacturer's instructions. Suitable substrates are, for example, mineral substrates (such as a floor screed, a water-based screed or pre-prepared underfloor heating areas, concrete and asphalt). Please note that the substructure should conform to the recognized state-of-the-art regulations for dry substrate constructions in moist rooms.



The underflooring should be absolutely level, dry, clean and portable. Any unevenness in the floor which is greater than 1 mm over an area of max. 100 cm should be expertly leveled (per German Industrial DIN Standard 18202) [3]. The flatness of the substrate can best be established by using a straightedge or a 250 cm spirit level, in compliance with the currently valid standards.



In order to keep wall sections and floor substrates of all kinds in moist rooms permanently sealed and watertight, a paintable sealing agent is to be applied. For the working of substrates, and particularly for the sealing of walls and floorings, reference is made expressly to the ZDB Code of Practice (01/2010) "Hinweise fuer die Ausfuehrung von fluessig zu verarbeitenden Verbundabdichtungen mit Bekleidungen und Belaeagen aus Fliesen und Platten fuer den Innen- und Aussenbereich" ("Notices for the fitting of bonded waterproof sealants when applied in liquid form in conjunction with



claddings and coverings of tiles, panels and boards for interior and exterior areas").

Check the boards in good light for defects. Once boards have been fitted, you will no longer be entitled to make complaints [4].

Krono Xtreme is laid as a floating floor [9a] or, in moist rooms with an adhesive bond over the full surface, and may not be screwed, nailed or otherwise fastened (e.g. using a door stopper) to the substrate. Carpeted floorings should always be removed and are not suitable as a substrate. If carpeted flooring is maintained underneath the Krono Xtreme flooring, a springing effect will be caused by footstep impact and generate a strong pressure effect to the edging area. This destroys the tongue-and-groove joint and causes gaps to form. Carpeted floorings should also be removed for hygiene reasons. Any resultant waterlogged areas can result in the forming of mildew and bacteria [5].

The use of underfloor heating (hot-water piping or electrical elements) is only possible where the product is expertly fitted, and on the condition that the heating operates properly when the Krono Xtreme product is fitted over it. A temperature of 27°C on the surface adjacent to the underside of the flooring should not be exceeded at any time, and not anywhere throughout the fitted area [6]. Any liability claims in connection with the operation- or the fitting -of underfloor heating will be rejected. All claims will be handled solely within the scope of our general warranty- and guarantee provisions.

It is recommended that you sort the boards prior to fitting to ensure the desired graining pattern and possible coloring nuances. Fit the contents of opened packs without delay.

To improve impact sound insulation, it is possible to use a system-appropriate insulating underlay.

Fitting

Ensure that the installation is tension-free. To guarantee this, an edging distance of at least 1 mm all round to walls, pillars, door stoppers, etc. is recommended as essential. In moist rooms, a sealing grout of at least 5 mm all round should be observed [9a, 9b].

Recommendation: Fit the boards with their length running in the direction of the main light source [7]. First, the dimensions of the room should be measured to determine whether the first row of boards may need to be reduced in width. If the wallings are not rectangular, mark the run of the wall on the first row of boards and trim back the boards accordingly to adjust to the angle of the walling. Should the last row of boards have only a width of less than 5 cm to the walling, you will need to distribute the residual measurement width evenly between the first and last row of boards, so that both rows have the same board width.

Please check which side of the boards is the tongue side and which the groove side. Start fitting the boards in the left-hand corner of the room space. Fit the first board with the short and long grooved side towards the wall and ensure the edge spacing by using spacers (1 mm min.). In moist rooms, ensure that there is a sealing grout running circumferentially all round (at least 5 mm) [9a, 9b]. The groutings should then be subsequently sealed using a silicone strip for humid and moist areas. In addition, boards in moist rooms should also be glued to the previously-sealed substrate. A suitable adhesive would for example be: an ultra-flexible, multifunctional reactive silane-based adhesive with mineral fillers and other additives (e.g. Ceresit Bautechnik CM 77 UltraFlex).

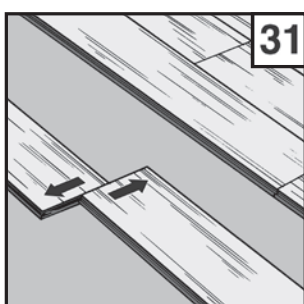
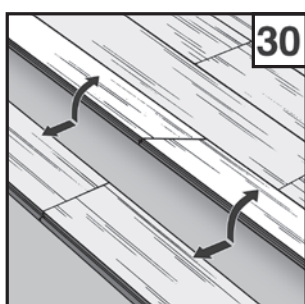
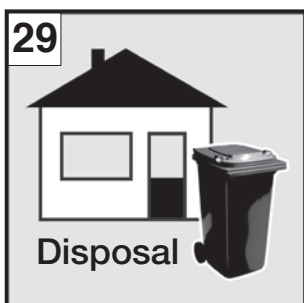
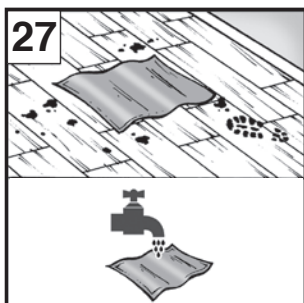
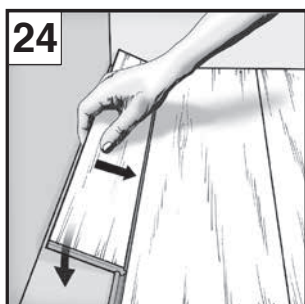
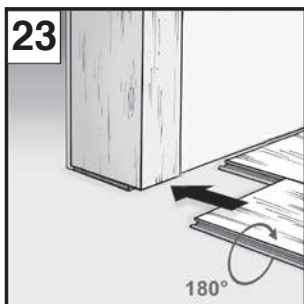
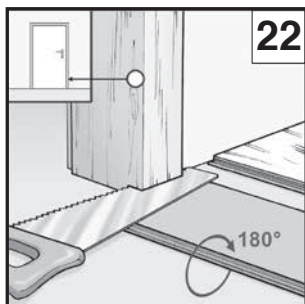
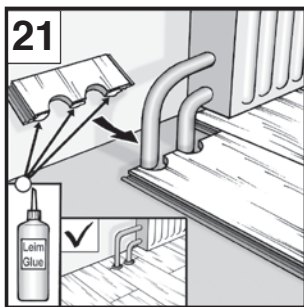
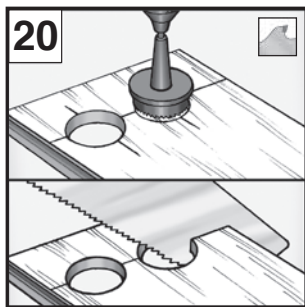
Fit a second board with the facing edge (short side) with the tongue towards the groove profile of the first board and click into place [11]. Before clicking the groove board into the first board in moist rooms, ClickGuard should be applied along the long and short sides to seal the board joints [8]. Apply ClickGuard immediately before installing each individual board when fitting in moist rooms. The instructions for use can be found on the ClickGuard pack. When gluing to the substrate, ensure that no glue intrudes beneath the tongue-and-groove joints. Adhesive which penetrates into the joint has a detrimental effect on the joint quality. Ensure that the lengthwise edges are lying in a single alignment, with no offsetting and that a straight line is produced. This is necessary in order to be able to insert the 2nd row of boards into the lengthwise profiles without the necessity of using a grout.

Click in further boards until the end of the 1st row is reached. Fully close the locking mechanism by controlled tapping downwards.

Rotate the last board in the first row by 180° for trimming-in or cutting to fit, by placing it with the décor side facing upwards alongside the row that is already fitted (grooved face to grooved face). On the facing edge, allow for a grout of 1 mm (for moist rooms: 5 mm all round). Mark the board length and saw to length [12].

To avoid the edge splintering, the décor side should be showing to the bottom when using electrical- sash saws or hand-held circular saws. Otherwise saw off from the décor top side of the board. Start each new row with the left-over piece (at least 30 cm length) from the previous row.

Start the second row either with a half-board or the left-over piece from the



first row. When doing so, make sure that the board is not shorter than 300 mm or longer than 900 mm [14]. The joint offset (offset on the joints running crosswise) needs to be at least 300 mm from row to row in each case (please observe the pattern of the joints with stonework décors). Before clicking the second row of boards into place in moist rooms, ClickGuard is to be used along the long and traversing sides to seal the board joints [8]. The instructions for use can be found on the ClickGuard packaging.

Arrange the board in the second row in such a way that the long sides of the boards in the 1st and 2nd rows are lying parallel over one another. Lift the board on the long side showing into the room space (groove side) by approx. 30-40 mm (at an angle of 20°) [16].

The tongue on the board in the 2nd row is to be slid into the groove on the 1st row in the raised area. Carefully depress the board until it is lying flat on the substrate. To fit the second board in the 2nd row, first again place its lengthwise side tongue at an angle downwards into the lengthwise groove in the 1st row (at an angle of 20°). Now slide this board in its angled position towards the facing side of the first board in the 2nd row [17], until the tongue on the facing side and the groove in the second board are lying over one another in a perfect fit.

By gently depressing the board, the lengthwise side and the facing sides are locked in place by clicking. Fully close the locking mechanism by controlled tapping downwards.

Repeat this process along the entire 2nd row (zip-fastening procedure), until the 1st and 2nd rows are laid without groutings and without any offset in height. When fitting the 1st and 2nd row, ensure without fail that the boards 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 crosswise.

In the final row, due allowance again needs to be made to ensure a tension-free fit (with an expansion grout of at least 1 mm to the wall). In moist rooms, a sealing grout of at least 5 mm all round should be maintained by using spacing pieces.

For heating pipes, holes should be cut that are 3 mm larger than the pipe diameter [20]. Cut out the "trimmed piece", glue it, fit it in place and fix it in position using a block until the glue has cured [21]. Then clad the cut-outs using radiator sleeves or seal in moist rooms with silicone strip.

Cut into wooden door frames so that a board can just fit underneath, to include a 2-3 mm gap [22,23], and seal in moist rooms using a silicone strip.

After fitting, remove the spacing pieces. To finish off, attach the skirting board clips to the wall at intervals of 40-50 cm, and insert the pre-cut skirting board to fit. In moist rooms, the resultant grouting around the flooring edge should be sealed by a silicone strip [25].

Cleaning and aftercare: Remove any loose contamination by sweeping or by using a vacuum cleaner that is suitable for hard floorings. For ongoing maintenance and cleaning, only use proprietary cleaning agents with no scouring additives. Polishes and cleaners with care additives such as wax, oil, etc., are not suitable for treating Krono Xtreme surfaces [26]. Krono Xtreme should not be polished. Footmarks and contamination can be wiped off with a well wrung-out, drip-free cloth [27]. Avoid residual puddles of water on the surface under all circumstances. Flowerpots, vases etc., should be placed on a drip tray that will not allow water to pass through.

Caution: Protect your flooring against scratches and indentations. Use a sufficiently large mat to trap contaminants in entrance areas. Wooden, metal or plastic feet on furniture should be fitted with felt pads. Only use office chairs with soft castors (to German Industrial DIN Standard 12529) or place a proprietary protective mat underneath the chair [28].

If these instructions are followed, you will maintain the value and good looks of your Krono Xtreme flooring and preserve your full rights under the conditions of warranty.

Lifting or replacing the boards: It is possible to exchange or replace boards that have been laid as a floating flooring in domestic areas and commercial areas without damage, by first releasing the whole row along the long side by angling it to free the locking mechanism [30]. Next, the boards are slid parallel against one another [31], keeping the front side flat to the floor. Please ensure when undertaking this work to prevent damage to the tongue-and-grooved sections.

www.krono-original.com
www.clickguard.de
<http://www.zdb.de/zdb.nsf/0/F379B86C6C1F8306C12576BA003497AC>