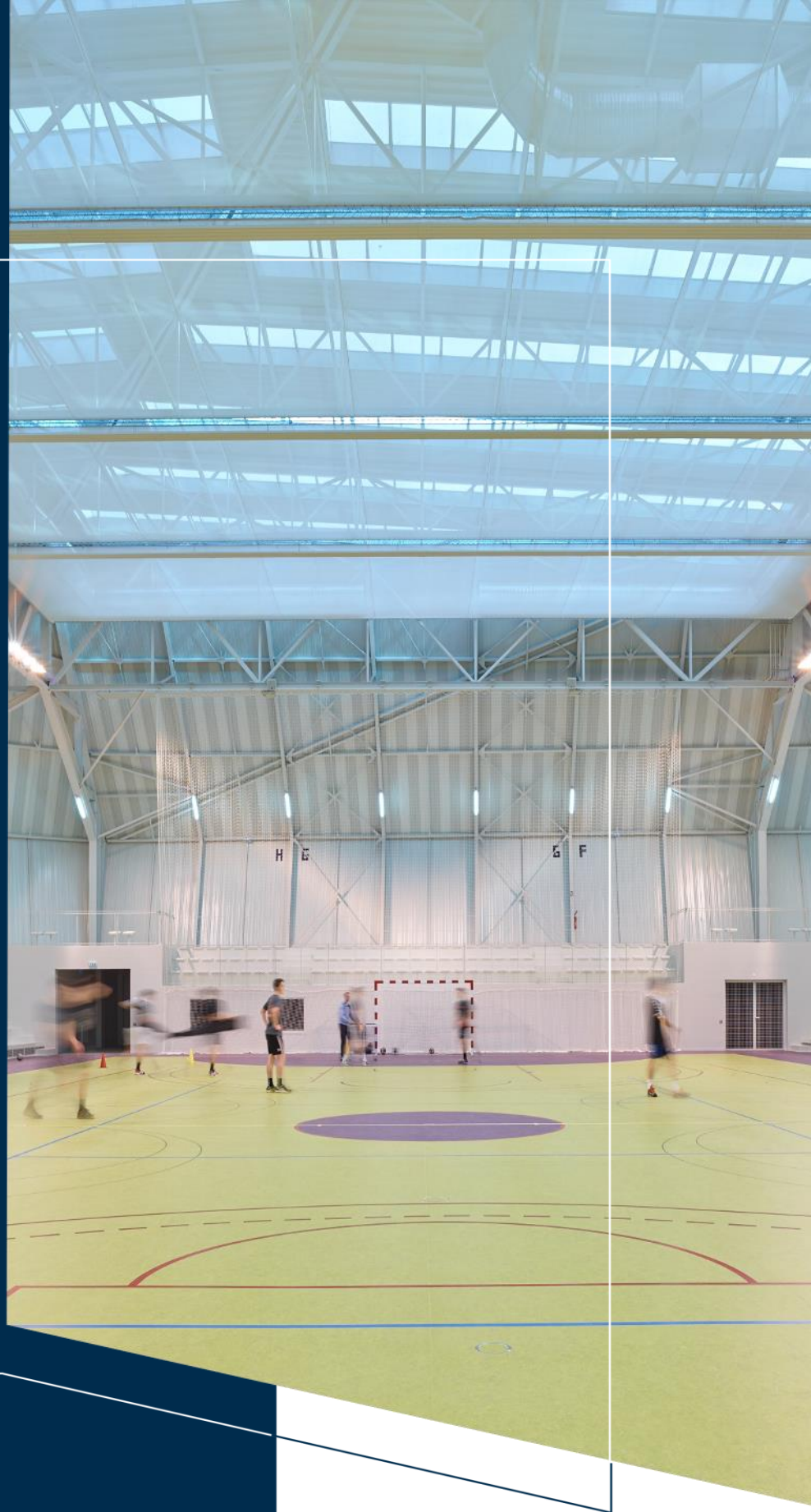


Installation instructions
LUMAFLEX ENERGY
Linosport xf²



PREFACE

In order to provide the customer with the best use of product, this installation guide has to be followed carefully to guarantee conformity and ensure sports performance. If not, Tarkett Sports will not be responsible for damages following installation.

Any use of the product for purposes other than the ones set out, in the condition of use, should be submitted to Tarkett Sports for prior approval. If you need any further information, please contact your dealer who will provide you with the appropriate advice.



Check before installation, the quality of the delivered product. If the product is defective, contact Tarkett Sports. If installation is in process, it shall be stopped on the day the defect is noticed otherwise the Warranty shall not apply.

Lumaflex is a wooden system and as a natural and living material, wood is moving due to relative humidity (RH). The wood shrinks in dry conditions and it expands in high relative humidity. In areas where the wood has been influenced by high or low RH for a longer period, damage in the wood may arise. Therefore it is important to always keep the RH in the hall between 40-60%.

SUBFLOOR

The subfloor must be dry, flat, clean, strong.

The moisture rate for concrete or cement screed must be in accordance with the local requirements.

For example : France $\leq 4,5\%$, Germany $< 2\%$, Spain $\leq 3\%$, (CCM method),...

Subfloor	Requirements
Surface appearance	Smooth
Flatness	$\leq 6\text{mm}$ under 3m ruler
Altimetry	$\pm 1\text{cm}$ compared to the average
Moister rates for concrete	Local standard compliant
Moister rates for anhydrite screed	$< 0,5\%$
Saw joints treatment	No
Cracks $< 1\text{mm}$ treatment	No

Levelling compound is necessary if the surface appearance is not smooth or if the flatness is not compliant.

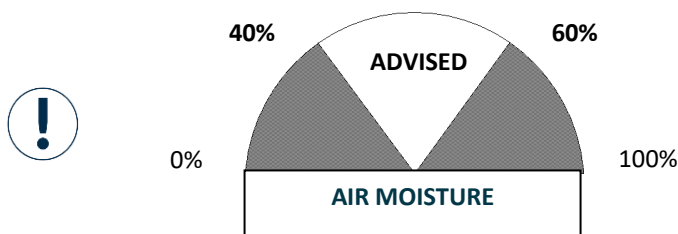
If the concrete is exposed to capillary moisture surges, it's necessary to waterproof the subfloor by an epoxy resin (or equivalent) before applying the levelling compound, or for localized concrete repair, use a specific moisture-resistant levelling.

INSTALLATION

1 – GENERAL CONDITIONS



The timber products have to be stored on their respective palettes, in a closed, dry and heated room between 15 and 20°C (59 °F and 68°F). the relative humidity needs to be between 40 and 60%.

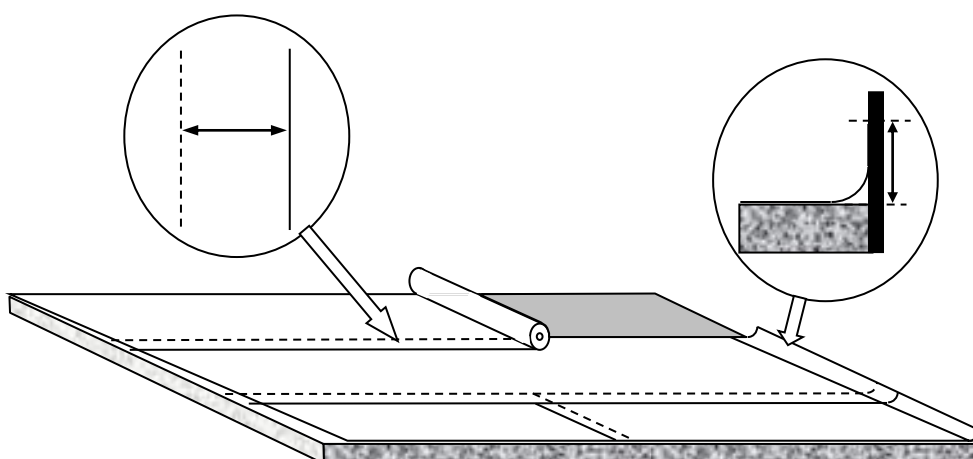


The packages of timber products must not be opened before being installed. Timber products must be acclimatized in the hall for 24 hours before installation. The temperature needed, in a room for a Lumaflex Energy system should be between 15 and 20°C (between 59 °F and 68°F).

2 – LAYING THE VAPOUR BARRIER: TARFILM

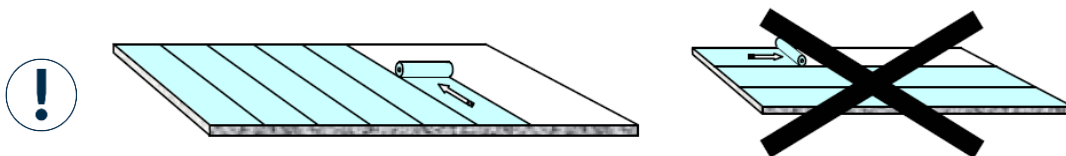
Lay the first sheet on the ground. The second sheet is laid with 20cm overlapping the first, then tape the both sheets together. We recommend to use strong adhesive tapes PVC. Do not forget to leave 10cm of Tarfilm along the edges against the walls. Ref. 1027006 (1 roll = 3m width x 40m length = 120sqm, thickness 200μ).

Please note that on an asphalt screed or any other sub-floor with a risk of pollution or possible high humidity content, you will have to double the layers but in a 90° direction.



INSTALLATION

3 – UNROLLING TARFOAM 60 (15mm)



Roll out the foam down across the width of the room. ref 1027008 (1 roll = 1.6m width x 25m length = 40sqm) during 12 hours with no tension and without any storage on it. We recommend unrolling in the width of the room in order to avoid seams in short ends. If you may have to connect seam in short ends with another, you will have to overlap the first roll with an extra width of 10cm. Then the foam will have to rest 12 hours to adapt (without any storage on it), then you will be able to cut off the extra overlapping to get a flat aspect and tape rolls all together.

Do not forget to locate holes for poles on the foam, that will help you install the trap doors.

In door openings, leave a 10cm wide strip free from Tarfoam 60; this should be filled with a 15mm plywood for re-enforcement purposes. The same operation can be carried out to re-enforce parts that support heavy loads but you must keep in mind that these areas won't be in accordance with the EN14904 standard.

4 – LAYING LUMAFLEX ENERGY PANELS

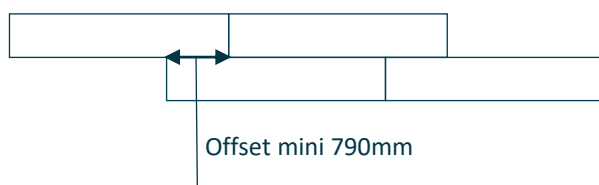
Lumaflex Energy Panels : 2490mm length X 395mm width X 15mm thickness, sold by 2 panels (1.97sqm)



Backside of the Lumaflex panel
– this side must be installed on
the foam



Cut the Lumaflex panels in order to obtain an homogeneous resistance before assembling. Minimum panels length : 790mm.



INSTALLATION

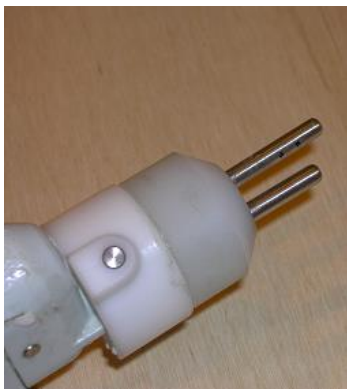
Laying process of the Lumaflex Energy panels – Gluing tongues and grooves by using Lumaglu ref. 1551075 (5kg bucket).

A special nozzle can help to spread the Lumaglu efficiently on the tongues and grooves, this nozzle often has to be cleaned up in order to prevent this item from getting blocked up. Otherwise, use a specific wood glue D3 in bottle with a regular glue applicator.

The glue consumption is about 10kg for an area of 200sqm. You must check that you handle the correct quantity of glue to obtain a good adherence of the panels and a homogenous structure, if less glue is used, the fixing will be considered to be non-compliant.

1551088 LUMAFLEX GLUING SYSTEM
1551089 LUMAFLEX NOZZLE

Lumaflex Nozzle



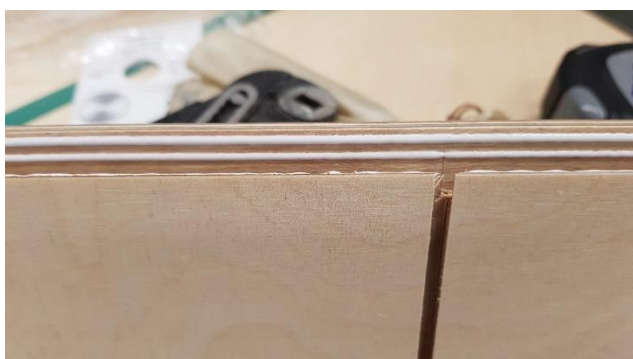
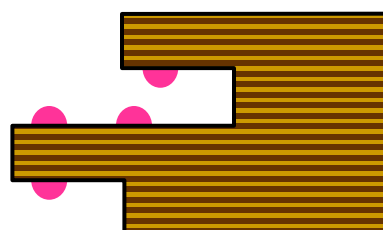
Lumaflex Gluing System



The glue tank needs 5 bars compression to be properly used.



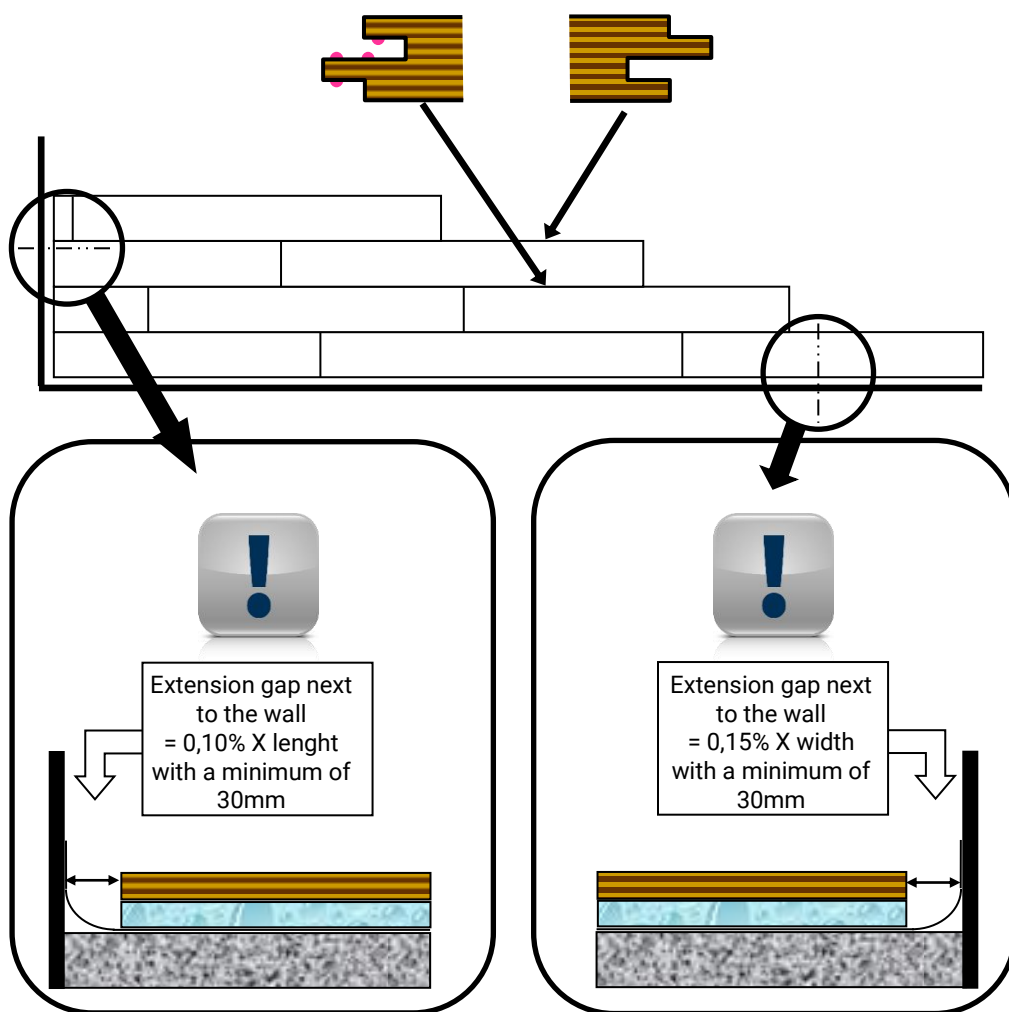
Don't forget to check constantly that the appropriate quantity of glue is applied.



Check that the glue is well dispatched on tongue and groove.

INSTALLATION

Respect extension gap all around the room



The Lumaflex Energy planks must be perfectly edge to edge and absolutely no space must be tolerated between the strips (in length and width).

The excess glue must be immediately removed after applying.

A surface sanding can be handled by using a scrubber in order to eliminate all surface defects.

The use of a punctual coating can be required if spaces between strips are observed.

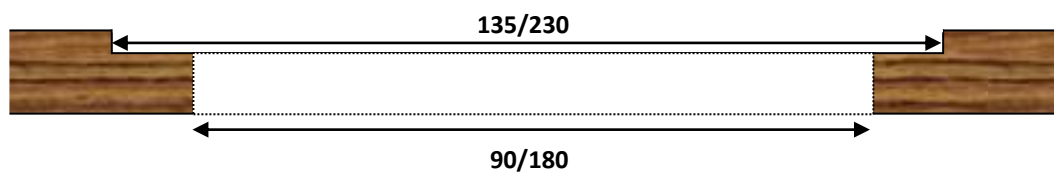
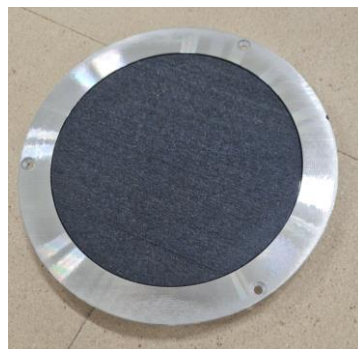
Follow the manufacturer recommendations.



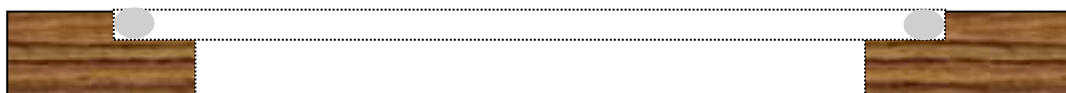
INSTALLATION

5 – FIXING THE TRAP DOORS

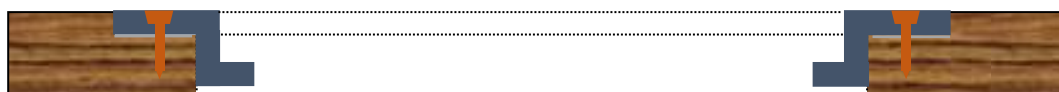
When installing the Tarfoam 60 and Lumaflex Energy planks, locate the center of pole holes, form a circular recess according to the sizes mentioned on the drawing below (check the diameter and the depth of each part of the trap door, before perforating the wooden floor).



Put the PU mastic all around the upper recess you created



Glue and screw the frame on plywood



Place the PE cover and glue the Linosport xf²



INSTALLATION

6 – LINOSPORT XF² INSTALLATION



After installation, ensure that the temperature is always maintained between 15 and 28°C.

Relative air rate moisture needs to be between 35 et 65%.

Linosport must be handled carefully between manufacture and installation. Special care will be taken to avoid shocks at the roll selvage, given that the material is very heavy. Appropriate equipment is required to handle the rolls.



During installation, the temperature in the room must be $\geq 18^{\circ}\text{C}$ and for the subfloor $\geq 15^{\circ}\text{C}$. Relative air rate moisture needs to be between 35 et 65%.

Linosport rolls are to be stored horizontally, on a plain/flat, dry and without any ruggedness. They must not be stacked.



Tarkett Sports recommend to install rolls in the play direction.

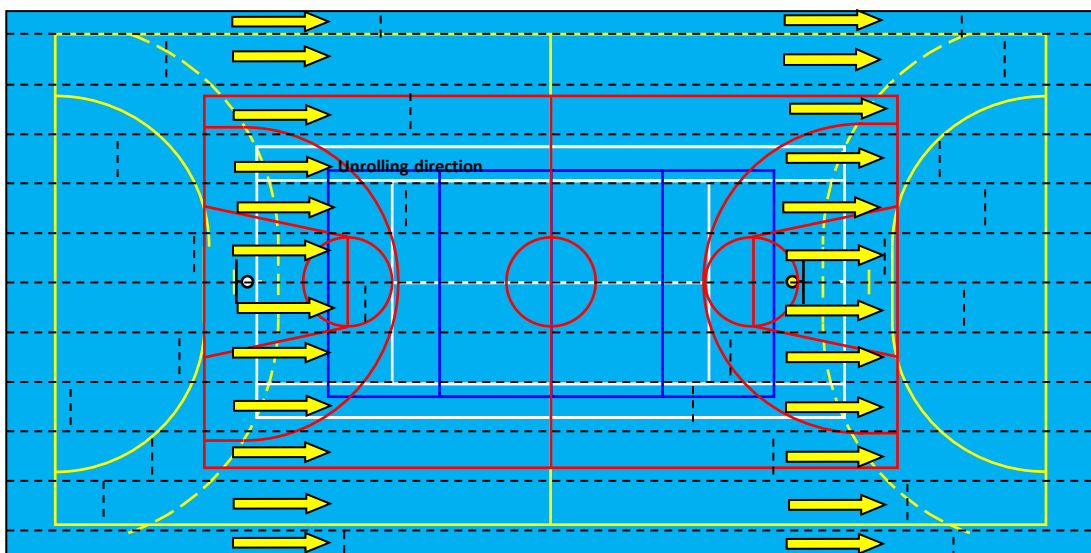
Same batch for the same colors in the entire room.

Mark out longitudinal axis.

Unroll the rolls along the longitudinal axis, following the chronological rolls manufacture order, leaving a space of 1 cm between them for at least 24 hours.

If necessary, re-cut the selvage (see step next slide)

Let the Linosport rest before adjusting the sheets, edge-to-edge, gap < 1mm.



INSTALLATION

Relax the sheets at the ends (do not force too much by pressing to avoid the risk of breaking or tearing the linoleum).



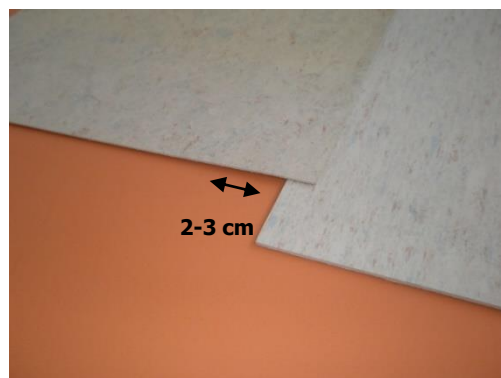
In case of curling or shocks at the roll selvages, you have to re-cut them on each roll (except the edges against the wall).

An edge cutter must be used on one selvedge per roll (do not cut the selvages against the wall).



Overlap rolls by 2 or 3 cm (selvages that have not been cut must be rolled on top of already cut selvages).

All sheets must be in position before bonding starts.



INSTALLATION

7 -LINOSPORT xf² GLUING

Roll half way back the sheets carefully on the first half of the gymnasium and start from the longitudinal axis to avoid moving the sheets from their original positions.

Linosport should be glued with a specific adhesive for Linoleum (please refer to the list of recommend adhesives available on: <https://professionals.tarkett.com>).

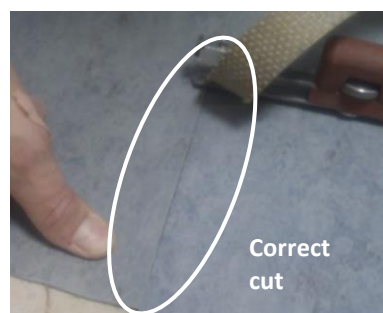
Glue consumption is about 350-400gr/sqm with a thin toothed spatula (TKB B1).

Apply the glue on sub-floor uncovered half, starting with the center strips and working outwards.

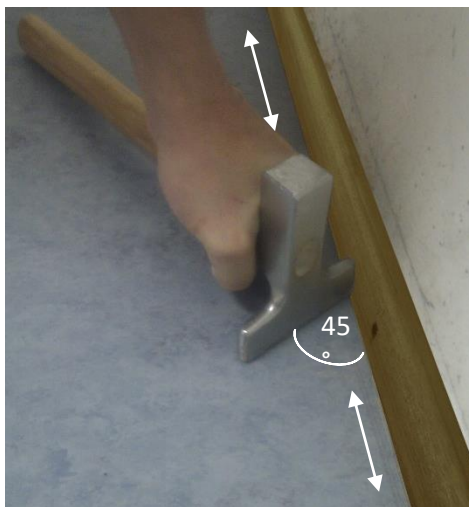
Only glue the adequate surface of Linosport, there is no waiting time.

Start to lay down Linosport rolls by the first one along the longitudinal axis.

Cut the edges covering the sheet on top with the joint marking gauge, space < 1mm. (the selvage of the glued sheets will guide the joint tracing tool - joint marking gauge).



Bind the joints and ends with the lino hammer at an angle of 45° to the next sheet.



Continue gluing the next sheets (always by halves).

Once all the half widths have been glued, do the same with the other half of the sheets.

Use 70kg heavy roller to press all the surface glued, widthwise then lengthwise.

Important notice: Use only adhesives recommended by Tarkett. For more information, please refer to the list of recommend adhesives available on: <https://professionals.tarkett.com>

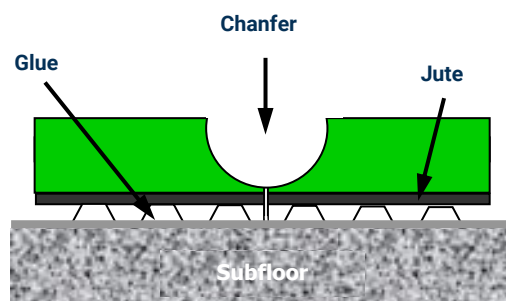
INSTALLATION

8 – HOT WELDING

! 24 hours after gluing

The grooving :

This operation should be performed by using an electric tool with a "U" shaped blade as described, for any 4mm diameter welding rod the width of mill must be 3.3mm and deep down to the jute.



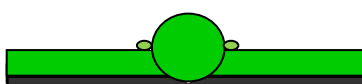
The welding :

We strongly recommend, for this operation, an automatic cart (Leister or similar), which will produce more regular, professional quality welds. Before welding Linosport, first of all, try to weld on an apart piece of product, in order to check that the temperature and the speed of this material enables to perform a good welding conditions.

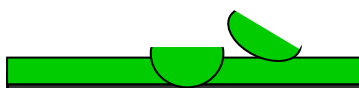
To obtain an optimal result, we recommend to set the temperature on 500°C, speed around: 2m/min.



The trimming :



The presence of a small bump indicates the perfect level of fusion of the welding rod.



First trim with a Mozart knife and wedge before cooling.



Second trim with a Mozart knife after cooling.



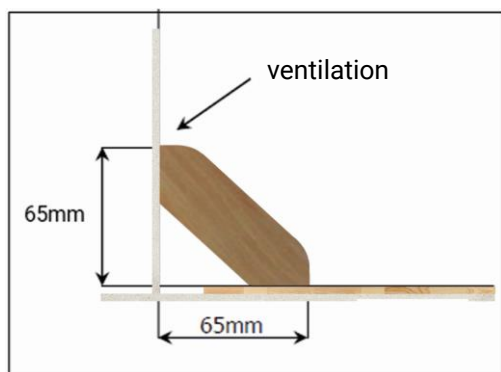
INSTALLATION

9 – SKIRTING

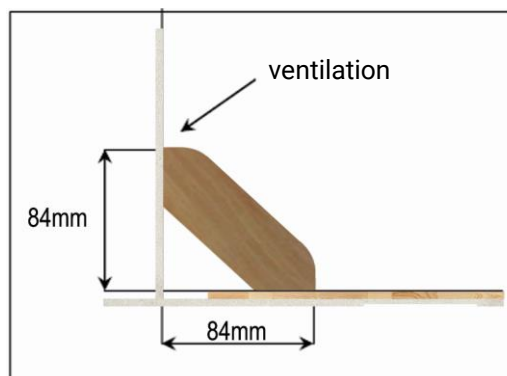
Install skirting :

Ventilated wooden skirting are designed to cover expansion gap and allow the ventilation of the floor.

Warning: the opening all along the skirting let the air circulate, it will always be placed against the wall.



Standard

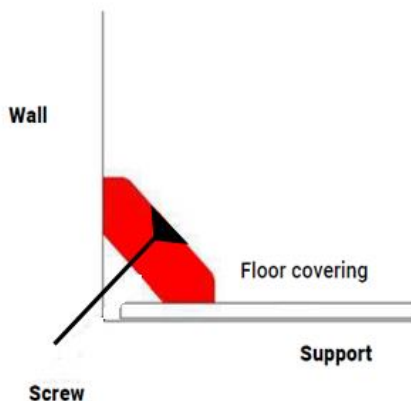


Wide

Fix skirting :

Skirting should be fixed on the wall (never on the floor) with screws (5.0 x 100mm).

For uneven walls skirting can be glued in addition to screws for perfect finishing.



INSTALLATION

10 – PAINTING GAME LINES

Permanent marking :

A two-component polyurethane paint is used to draw game lines.

A protective tape is used during the painting to fix the shape.

The floor must be cleaned.

The paint is applied with roller or paint brush.

Two coats should be applied for quality marking; avoiding applying a damp coat on top of a damp coat (the first coat should be dry by touch). Similarly, the covering power of a game line is obtained by applying two coats. Too much paint can cause micro cracking on the surface.

Paints recommended by Tarkett Sports :

- Blanchon Thixo Tracé – Blanchon SA – Tel: +33 4 72 89 06 00
www.blanchon.com
- Kipp 2K PUR Indoor pour les lignes de jeux et Kipp 2K PUR Surface Paint pour les surfaces
www.kipp-markierungen.de
- Bona SuperSport Line Paint – Bona – Tel: +4640385500 - E-mail: bona@bona.com
www.bona.com
- Conipur 3100 – BASF AG– Tél. +41 58 958 22 44 – www.conica.com

Follow the manufacturer's installation recommendations

