

INSTALLATION INSTRUCTIONS Linoleum floorings

2022

LINOLEUM xf²

Veneto xf², Etrusco xf², Originale xf², Style Elle xf²,
Style Emme xf², Trentino xf²
Silencio xf² 19dB
Veneto Sicuro xf² R10
Lino on furniture

IMPORTANT!

- Make sure all specifications and instructions are followed carefully.
- Contact your Tarkett representative if you are unsure about any part of the installation.
- This information is subject to change due to continuous improvement.
- Use tools dedicated to linoleum installation (wall scribe, linoleum hammer for joints, joint scribe, edge trimmer...)
- Use the same batch number for each continuous surface, installing the rolls in sequential order number.
- Store the rolls upright, in a safe position, in a dry place, protected from heat and cold, moisture, rust and rot, free from any contamination and not piled up or crushed under a heavy weight.
- Let the flooring acclimatize at least 24h before laying at room temperature (minimum 18°C), avoid to heat up the product using direct heat sources (like heating burner torch or professional dryer).



- The subfloor must be flat, level, clean, without marks (no felt pen, marker, etc.), sound, dry, solid, hard, smooth and not exposed to moisture. Absorbency must be checked and adjusted to have moderately absorbent subfloor.
- Use only adhesives recommended by Tarkett. Always follow the adhesive manufacturer's instructions.
- The work must be completed with an inspection: ensure that the newly laid floor is free from adhesive residues.

SUBFLOOR

The subfloor must be level, flat, clean, free from marks (no felt pen, marker of any type, ballpoint pens, paint, etc.), that could cause discoloration due to migration) sound, dry, solid, hard, smooth (the absorbency must be checked) and not exposed to moisture.

The preparation/dryness of the subfloor and installation procedures should all be in accordance with the current relevant Standard within the country of use. The dryness of a solid subfloor should be below the maximum moisture level permitted when tested in accordance with that Standard.

E.g. in the UK, the relative humidity of concrete surfaces must be below 75%, and less than 2% with the CCM method.

In North America, ASTM F-170 recommends a water-to-cement ratio of 0.40 to 0.45.

Before selecting a smoothing compound, check what type of traffic the floorcovering will be subjected to once installed. Latex smoothing compounds are not suitable for areas that will receive heavy traffic, especially heavy, narrow wheeled traffic (see EN 12529, Castors and wheels). Check levelling compound compatibility, and follow the instructions of the levelling compound manufacturer.

Note: exclusion of liability (adhesives, levelling compounds, etc.)

Although Tarkett may list a selection of adhesive, levelling compound and surface damp-proof membrane manufacturers and types, we do not guarantee the products listed. The list of products and manufacturers is not guaranteed complete or current.

Tarkett will accept no liability for any of these products failing to perform in conjunction with any of its products. It is the responsibility of the adhesive, levelling compound and surface damp-proof membrane manufacturer and flooring contractor to ensure the products being used are appropriate for use and applied in accordance with the manufacturers' recommendations.

CONDITIONS REQUIRED FOR INSTALLATION

It is important that sheets are stored at least 24 hours before installation at a minimum room temperature of 18°C. This temperature should be maintained throughout the installation. Please avoid to expose the product to direct heat sources (like heating burner torch or professional dryer as explained before).

The minimum temperature of the subfloor should be 15°C. The recommended relative humidity in the room is 35-65%. Sections of flooring must be cut to the required lengths, plus an allowance of a few centimetres, and stored in the room where they are to be installed. Don't roll the linoleum with the jute outside.

UNDERFLOOR HEATING

It is imperative that underfloor heating systems have been previously commissioned and found to be functioning correctly before installation of the floorcovering. Ensure that the underfloor heating system is switched off 48 hours before installation of the floorcovering commences, and remains off for at least 48 hours after installation is completed. While the underfloor heating system is off, an alternative heating source should be provided, if required, to ensure that the installation area is kept at a constant temperature of 18-27°C. Gradually increase the temperature over a number of days by only a few degrees per day until the desired room temperature is reached. The temperature should never exceed the floorcovering industry's agreed maximum of 27°C on the underside of the floorcovering (the adhesive line).

LAYING DIRECTION

At least 24 hours before installation, the material should be cut to the desired lengths; the cut sheets must be acclimatised where they are to be installed by placing them in an upright position.

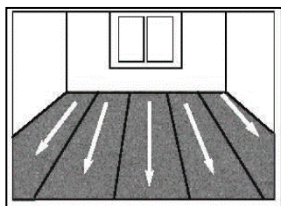
Plan the sheet direction for the area to be installed to ensure that whenever possible joints do not coincide with doorways, main traffic lanes, sinks or urinals.

If the room is reasonably square, the sheets should run parallel to the incoming light.

In long, narrow rooms it is best to install the sheets along the length of the room.

The sheets should be cut longer than the room.

All consecutive sheets should be installed in the **same direction (EXCEPT Style Elle xf², installed reversed)**.



GLUING¹

For Linoleum with jute backing should be applied to the entire subfloor with a B1 spatula (approx. 300-350 g/m²) performing a wet installation (finger test needs to leave only small traces of the glue).

For Linoleum with foam backing should be applied to the entire subfloor with a A2 spatula (approx. 200-300 g/m²), respecting waiting time of the glue given by glue's manufacturers.

Always follow the adhesive manufacturer instructions especially regarding waiting and working time of the glue.

Always perform small installation trials in order to check the proper opening time of the glue that can vary according to the porosity of the substrates.

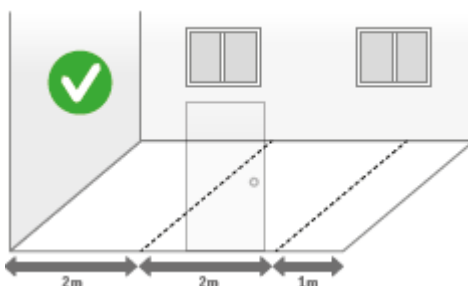
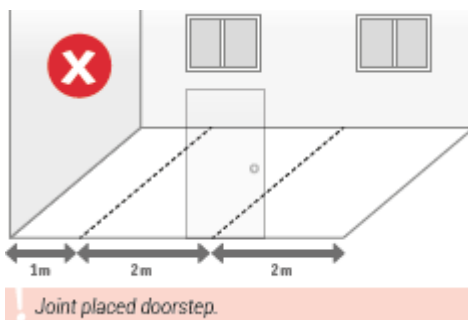
FOR LINORAIL HL3 R10 and in case of areas subjected to extreme traffic, severe temperature changes such train entrances and toilette, we recommend use a two-component, epoxy-polyurethane adhesive.

FOR LINO on furniture, we recommend to use Polyvinyl acetate glue following supplier instructions for curved surface, use acrylic adhesive for flat surface. Always perform a trial before final installation. Strong contact adhesive may be required for specific areas.

¹ For more details on gluing, please refer to the separate sheet: Adhesives.

1 - CUT AND PLACEMENT OF THE FIRST SHEET

Determine the position of the rolls in order to avoid that the joints will be placed in a doorstep



After relaxation of the rolls for a minimum of 24h, cut the required length of the roll allowing approx. 5-7 cm excess for trimming



Measure 15 cm from the wall and mark this distance on the subfloor
And then positioning the roll on the marks.

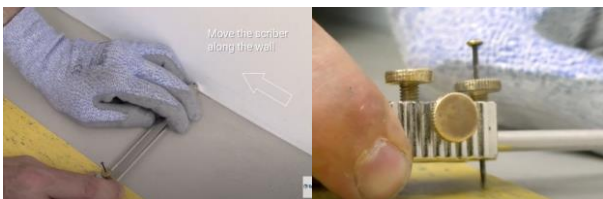


2 - SCRIBE AND CUTTING

Set up the scribe at 16 cm (15 cm + 1 cm to cut the edge)



Move the scribe along the wall and use the needle to scratch the floor in order to facilitate the next cutting with hook blade knife.



Cut the material using a hook blade following the scratch made by the needle



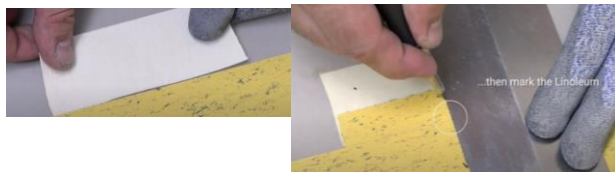
Use the edge cutter to trim the other edge of the sheet. Now the long side of the first Tarkett Linoleum is trimmed



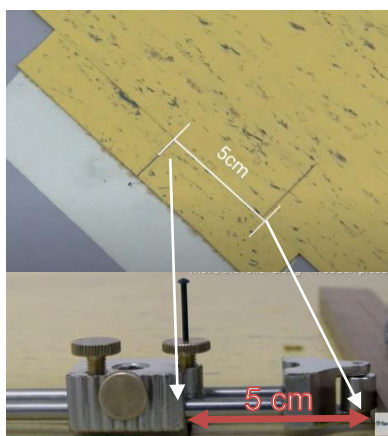
3 - CUT THE SHORT SIDE

In order to prevent any movement, fix a double side adhesive tape on the subfloor and place a straight piece of linoleum on it.

Then mark with a pencil both linoleum sheet and the small piece.



Pull away the sheet from the short side of the wall around 5 cm. The small piece of the Linoleum will be use as a guide for this movement.



Place the needle of the scribe on the pencil mark on the small piece attached on the tape

Then validate the distance (5cm) using a wooden piece as reference put on the pencil mark on the linoleum sheet

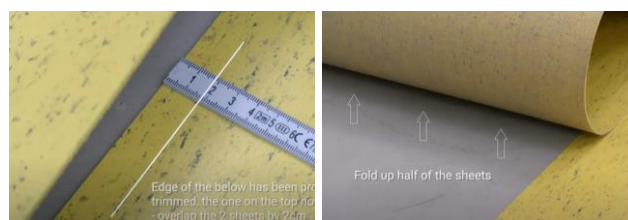
Scribe along the wall (short side) keeping always the validated distance, cut the excess of material with hook blade And then place the sheet close to the wall



4 - PLACEMENT OF THE SECOND SHEET

Lay down the second sheet overlapped by 2 cm on the first sheet

!!!! The first sheet is not yet glued



Repeat the short side trimming for the second sheet and for the second edge with the edge trimmer (see step 3 e 2). The overlapped edge will be trimmed after the gluing operation.

5 - GLUING

Fold up the half of the second and first sheet
Be sure that the subfloor is clean and free of debris

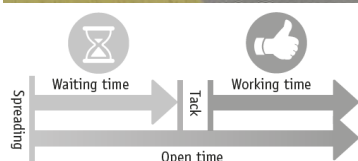
Spread around 350 gr/m² of glue using a B1 spatula following Tarkett and glue manufacturer instructions (for jute backing).



use **B1** spatula
(TKB model).

(please refer Tarkett adhesive list)

Fold back first and second sheet in sequence following strictly the opening and waiting time given by glue manufacturers



Repeat the operation for the second half of the sheets

6 - SCRIBING AND CUTTING OF THE JOINT

Take the under scriber, push the stud of the scriber to the edge of the first sheet and set the distance of the middle in order to leave a gap of ≈ 0,5 mm.



Stud of the scriber is pushed against the skirting.

Then scratch the second sheet with the needle using the first sheet as a guide

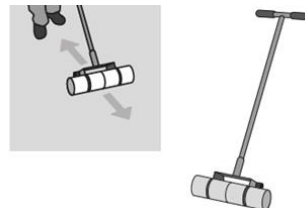


Finish the cutting with the hook knife



Finish cutting with the hook blade

Roll the surface with 70 kg heavy roller to complete the gluing operation.



INSTALLING ELAFONO

Install Elafono with the jute backing facing upwards and generally edge to edge.

Laying direction: if you install Elafono and Linoleum in the same direction, the joints of the Elafono and of the linoleum must have an offset in relation to each other by about 50 cm at least.

Gluing: use an acrylic adhesive for linoleum (the same as recommended for Tarkett Linoleum). Apply adhesive using a trowel B1 (approx. 350 g/m²).

IMPORTANT Do not install linoleum until the fitted Elafono is completely dried (about 24 to 48 hours after fitting).

7- GROOVING

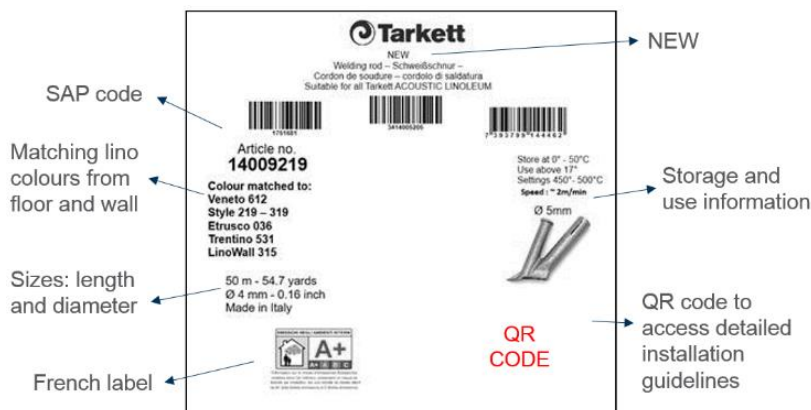
The following procedure is valid for Tarkett Linoleum compact as well as for Tarkett Linoleum Silencio 19dB and Acoustic Cork 15dB floor covering.

The installation with grooving and hot welding is strongly recommended for:

- Joints sealed in order to prevent any penetration of water after the Tarkett Linoleum floorcovering has been laid
- Underfloor heating
- Safety areas

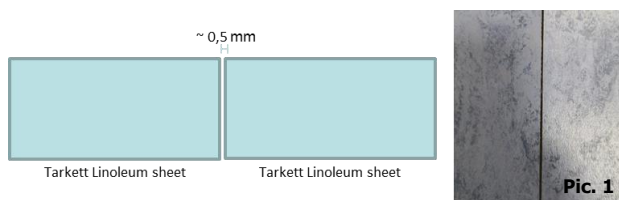
Tarkett always recommend a welding installation to have better aesthetical and mechanical properties of the floorcovering, please refer to your local regulation for more exhaustive information.

LABELING:



7.1 - Before starting the grooving operation

- Be sure the floor was glued at least 24h before grooving operation
- The distance between sheets after scribing, cutting and trimming of the edges has to be $\approx 0,5\text{mm}$ (Picture 1)



- Check instructions of tools manufacturers about use and maintenance of these tools in order to ensure proper quality of the welding:
Put specific attention to the sharpness and shape of the blades of the groover and replace them when needed.
- **Before to start to groove on installed flooring, make a grooving trial on technical scrap in order to set the correct depth of the device.**

7.2 - Groove the edges

The space between the two floor edges shall be preserved ($\approx 0,5\text{ mm}$) in order to allow a smooth move of the guiding wheel and to ensure an equal grooving on both Tarkett Linoleum edges (Picture 2).



The grooving can be done with different tools:

- Electric groover (preferable)
- Manual groovers
- Turbo Groover (North America Market)



Electric Groover



Manual Groover



Turbo Groover



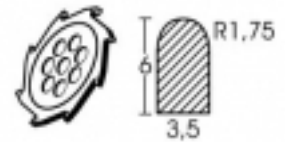
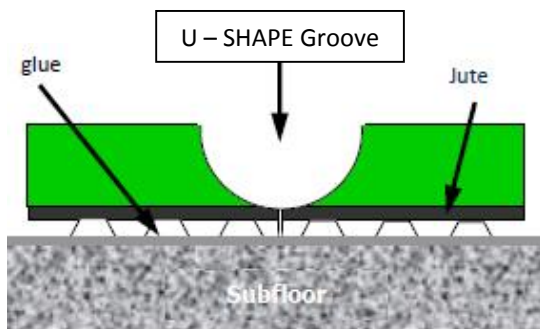
Manual groover
"Beetle"



Manual groover
"Swift"

If any doubts or clarifications should be needed, please contact your local Tarkett representative for further information.





- Tungsten carbide tipped blade
- 110 x 3.5mm,
- Trapezoidal profile

The Tarkett's Linoleum must be grooved down till the jute backing in order to ensure the ultimate adhesion between Tarkett welding rod and Linoleum floor (Picture 3).
Manual groover shall be used at the end near the wall, where the automatic groover cannot get access (Picture 3).



Pic. 3

7.3 - Results

- The grooving is around 3,5mm wide;
- Both edges must be grooved;
- The grooving has to be centred between the linoleum sheets and jute totally exposed (Picture 4).



Pic. 4

THIS STEP IS CRUCIAL TO ENSURE THE ULTIMATE BONDING BETWEEN TARKETT LINOLEUM AND TARKETT LINOLEUM WELDING ROD.

What we should not do:

OK

- Correct depth (till the jute)
- Groove centered
- **Ultimate adhesion** between Tarkett Linoleum and Welding Rod

NOK

- Incorrect depth (too shallow)
- Low bonding

NOK

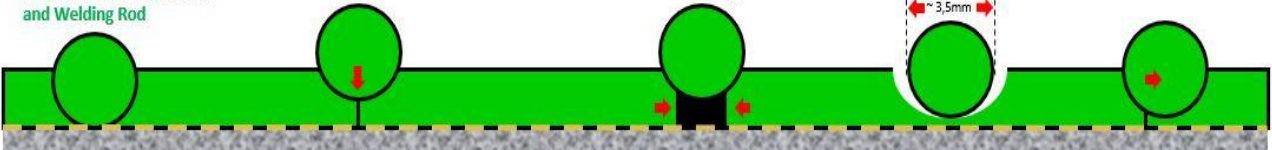
- Incorrect width (space between Tarkett Linoleum sheets too wide)
- Hard to fill
- Low bonding

NOK

- Incorrect width (grooving too wide)
- Hard to fill
- Low bonding

NOK

- Offset grooving
- Jute not exposed
- Low bonding



Grooving not deep enough



The grooving is not deep enough. This causes no adhesion between Tarkett Linoleum and Tarkett Linoleum welding rod. Follow **Trouble shooting guide** to know how to deal.

Grooving too deep



The grooving is too deep and the Tarkett Linoleum welding rod cannot fill the entire space of the grooving. Follow **Trouble shooting guide** to know how to deal.

Off-center grooving



An off- center groove will result in the Tarkett Linoleum welding rod pulled away from the edge. Follow **Trouble shooting guide** to know how to deal.

No grooving



No adhesion between Tarkett Linoleum Welding Rod and Tarkett Linoleum edges. Follow **Trouble shooting guide** to know how to deal.

Cuttet grooving



The grooving is made manually only with knife, without any groover tool. The groove is irregular and the jute is not exposed. Follow **Trouble shooting guide** to know how to deal.

All of the situations previously described will result in gaps and voids along one or both sides of the seam that allow moisture and contaminations (dust and debris) to go inside the seam, with the consequences of:

- Soiling;
- Water and moisture infiltration;
- Detachment from the subfloor or from backing thanks to glue softening due to moisture infiltration;
- Low adhesion between Tarkett Linoleum and Tarkett welding rod;
- Stains on the floor surface and joints;
- Bad visual aspect;
- Premature wear.

8. WELDING

8.1 - Material storage

- The Tarkett Linoleum welding rod shall be stored between 0°C and 50°C.
Put the boxes in the same installation room 24 hours before welding.
- The usage shall be above 17°C
- If the material is stored at temperatures and humidity different from those suggested by Tarkett, the mechanical properties may not be guaranteed.

8.2 - Before to start

- Clean the floor, eliminating all dust and debris with vacuum cleaner (preferable) or sweep.
- The grooving must be clean from any contaminations particles.
- Check the instructions of the welding machine manufacturers about use and maintenance to ensure a good quality of the welding.

8.3 - Selection of welding machine

A - Manual welding machine



B - Automatic welding machine



A - Manual welding machine

- Nozzle selection (Picture 1):
Do not confuse the nozzle for Linoleum and the nozzle for PVC



Pic. 1

After the nozzle selection, the right temperature shall be set.

- Temperature setting:
Set the manual welding gun between 400°C and 450°C
The setting of the welding machine could be slightly adapted according to ambient temperature and type of equipment.
A good way to preset the correct temperature is to concentrate the heat flow (without nozzle) on the Tarkett Linoleum welding rod and see how is melting (Picture 2): the welding rod should melt slightly and not get burned (overflowing or becoming dark).

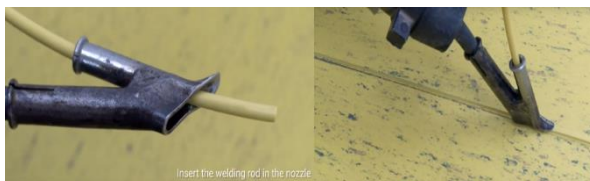


NOT OK – too hot

OK

Pic. 2

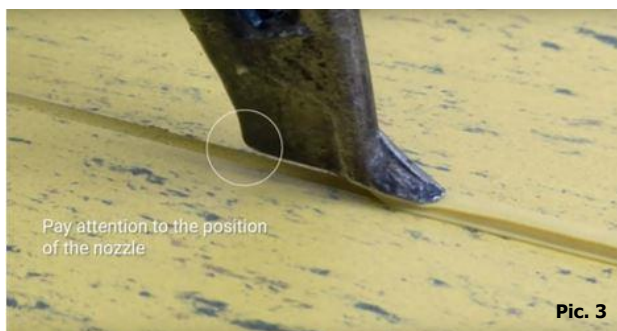
8.4 - Weld the Tarkett Linoleum welding rod



Insert the welding rod in the nozzle

A sturdy and durable weld is obtained by the correct combination of:

- **Temperature;**
- **Speed;**
- **Position of the nozzle (the rear of the nozzle must be parallel to the Tarkett Linoleum floor) (Picture 3);**
- **Downward pressure;**



In order to ensure that Tarkett Linoleum welding rod reaches the jute at the bottom of the groove, it shall be melt properly, creating bevel edges (the shoulders of the Tarkett Linoleum welding rod) melted as shown in the picture 4:



After the first 50cm, check the weld adhesion: push the welding rod side to side and check if it sticks on the edges. (Could be better on an off-cut part).

B – Automatic welding machine

Settings of speed, temperature and air flow of the machine:

- Air flow (if is settable) = ~ 75%
- Temperature = between 400°C and 450°C
- Speed: from 3m/min to 4m/min
- Exhaust pipe flap = **OPEN**
(under some circumstances can happen that the welding rod sticks to the wheel machine. In this case, is suggested to close one exhaust pipe with a screw or both exhaust pipe with the flap as is showed in the Picture 5 below:



Due to huge number of automatic welding machine on the market, these parameters can only be a first recommendation for the installers and should not be taken as fixed values.

Please perform always some trials before to start the operation and please refer to the aesthetic aspect show previously in the Pictures 3 and 4 in order to ensure an ultimate welding.

Refer also to manufacturers guide since the settings of the automatic welding machine could be adapted for different ambient temperature.

8.5 - Results

OK



Bevels are visible on both sides. This means that welding rod is melt properly (correct temperature and welding speed). Good visual aspect, good adhesion between Tarkett Linoleum and Tarkett Linoleum welding rod.

NOK



Bevel on both sides of the grooving are not visible. The bevels are not melted properly (welding speed too high or temperature too low). Bad Adhesion between Linoleum and Welding Rod

NOK



Excess of bevels on both sides. They are too melted (temperature too high or welding speed too low). Bad visual aspect and difficult to cut.

9 - TRIMMING

9.1 - Before to start

Check the sharpness of the blades as they are subject to wear and shall be maintained regularly.

The trimming operation (cutting of the excess material) could be done with different knives, the most used are (picture 1):



Quarter-moon knife



Mozart Knife with Linoleum 0,7mm trimming guide (slider)

Pic. 1

9.2 - First cut

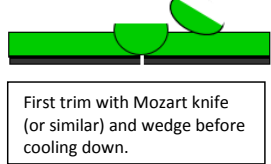
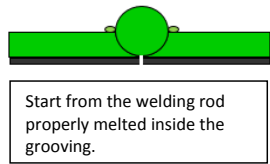
Perform the first trim approximately 5/6minutes after welding (welding rod is lukewarm).
If you are using the Quarter-moon knife, use the slate (trimming guide).
If you are using the Mozart knife, use the 0,7mm trimming guide (slider); carefully check the cutting angle as is showed in the (picture 2 below).

In both options, the right left over quantity allow to perform in the easiest way the second and final cut



Pic. 2

Trimming:

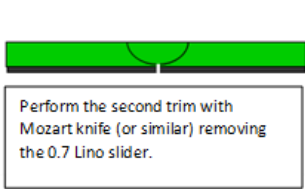
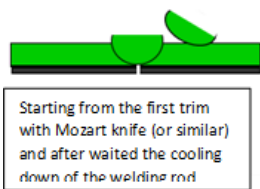


9.3 - Second cut

Approximately 5 minutes after the first cut (10 minutes from the welding operation), perform the second cut.
If you are using the quarter-moon knife, remove the slate (trimming guide).
If you are using the Mozart knife, remove the 0,7mm trimming guide (slider).

Trim the remaining Tarkett Linoleum welding rod with the second cut.

Trimming:



9.4 - Results

The surface between welding rod and the floor is perfectly flat as indicated in the picture 3:



Pic. 3

Possible mistakes:

- Do not perform the first and second cut immediately after the welding operation when the welding rod is still hot, because this creates a concave shape and a possible bad aesthetic result (Picture 4);



Pic. 4

- Trimming has to be performed with quarter-moon or Mozart knife. No other knives are allowed;
- Usage of not sharpened blades will result in a very bad visual aspect (Picture 5).



Pic. 5

Wait at least 24 hours to use the floor after welding.

AFTER INSTALLATION

IMPORTANT! Wait 48 to 72 hours before allowing any foot traffic or moving in furniture.

Protection of installation

If building work is carried out after installation, the floor should always be protected by covering it with hardboard or plywood sheeting. Masking tape must not be stuck directly to the floor.

Never subject a newly installed floorcovering to heavy wheeled traffic at an early stage, as this will force adhesive from beneath the floorcovering

Initial site cleaning

An initial site cleaning is always recommended before the new floorcovering is commissioned.

Residual adhesive should be removed with methylated spirits and a clean cloth.

Lightly soiled floors: vacuum, sweep or damp mop the area to remove loose dirt and building dust. A combined machine is very effective for large areas (combined scrubber/dryer with cylindrical brushes for safety flooring).

Preventive care

About 80% of all dirt is brought in from outside. An effective entrance dirt barrier system is needed.

Ideally it should be approx. 7-8 m in heavy traffic entrance based in three – stage principle:

- One scraper grid before the door
- One “grass” mat
- One fibre mat

ACCESSORIES

(ask for the installation video)

Skirting SOS (Set On Skirting): Linoleum xf² skirting on MDF

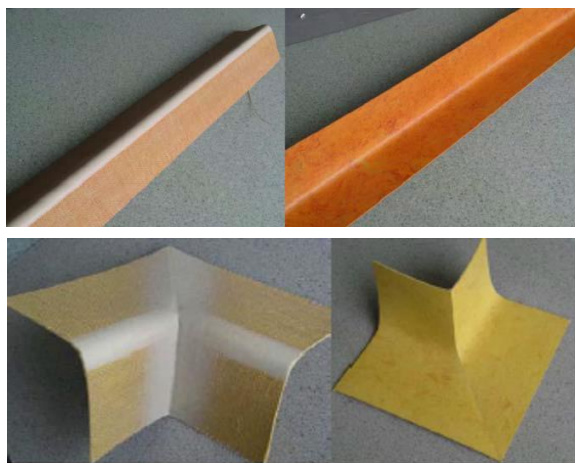
- STD dimensions: 2200 x 60/80 mm (LxH)
- Linoleum xf² glued on natural, resistant, semi flexible and easy to cut MDF back
- To be installed after the floor covering



Lino SOS

Skirting SIS (Set In Skirting): Linoleum xf² skirting pre fabricated

- STD dimensions: 2400 x 100 x 60/80/100 mm (LxWxH) / Also possible with 200 mm onto the floor
- Linoleum xf² moulded and reinforced with elastomer
- To be installed before the floorcovering
- To be welded
- Also possible outer corners



Lino SIS