

# TRIO SCRAPER

# ALUMINIUM

**DEBOMAT**

i nnovations in textiles

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## **Trio Scraper Aluminium**

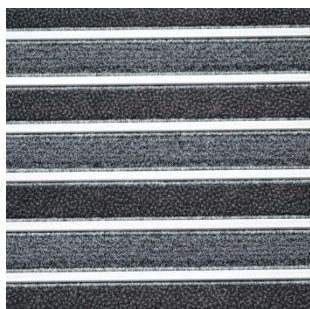
### **1) What are the dimensions?**

Trio Scraper Aluminium is in roll form and the stripe direction is in the same direction as the width of the roll so completely opposite to the textile products like Super Scraper, Trio Brush or Trio Scraper. The length is 10m and the height of the roll (width) is 2m, 2.5 m or 3 m. These dimensions can vary  $\pm 0.5\%$ . The weight per m<sup>2</sup> is 5 kg ( $\pm 100$  kg per roll if 2 m wide, 125 kg per roll if 2.5 m wide and 150 kg if 3 m wide). Every roll has a pole direction which is marked by arrows on the reverse side of the roll. The thickness is +/- 13 mm.

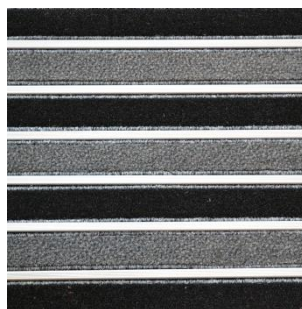
### **2) What is it made of?**

Trio Scraper Aluminium is made from a Polypropylene needle punch with a latex backing. Strips of Polyamide or nylon are inserted together with aluminium bars. The strips inserted each serve a different function. One strip is a “scraper”, the other is softer and intended for “drying”. These 2 strips alternate over the entire width of the roll. In Each roll 33 strips are inserted. If a roll begins with a scraping strip at one end of the roll, it will end with a scraping strip at the other and vice versa. During the production process, 2 rolls of 2m X 20m are manufactured (2 starting with the scraping strip and then 2 rolls starting with the drying strip). The reason for this is that when a mat exceeds the 2m width, the attached piece starts with the correct insert, maintaining the alternating pattern of drying and scraping.

### **3) Available colours? (in order of most popular)**



**Grey**



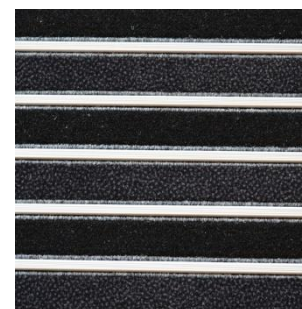
**Anthracite**



**Brown**



**Silver**



**Black**

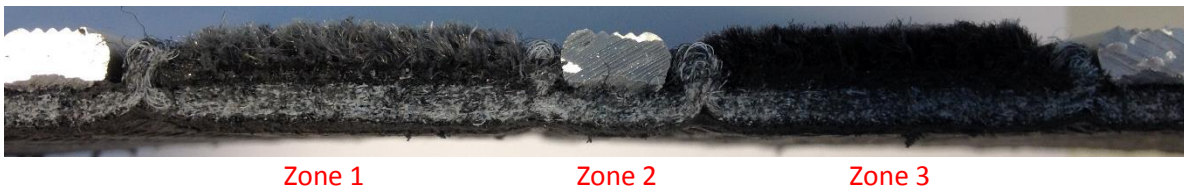
#### 4) Can it be branded?

Yes, it can be branded with logos. A logo is produced separately and then inserted into the existing matting. The way the logo is produced can be cut out with flock or printing.



#### 5) How does it work compared with other walk off mats?

As you can see on the picture below, the mat has 3 different zones in one. The first zone is the scraping zone. This nylon or Polyamide insert will scrape the soles of the shoes. The second zone is the optical zone with the aluminium bar which has an edged scraper profile on top. The third zone is the drying zone by a Polyamide tufted section.



#### 6) When does it not work as well as it should?

Tests conducted by a certified testing lab have shown that a total of 7m is required before feet are completely dry and clean by walking over the mat. This can be achieved with a combination of outdoor matting and indoor matting as realistically, not all buildings have the available space for one mat of this size. Consequently it is important that architects are aware of this fact when designing an area for an entrance mat.

#### 7) The truth about dirt

- It can cost more than 500 € to remove 500g of dirt, after it has been tracked into a building.
- Up to 12kg of dirt can be tracked into a building by just 1000 people coming through an entrance each day over a 20 day work period.
- Without adequate matting, 42% of a floor's finish can be removed within the first 1.5m of an entrance after only 1,500 people have walked in.



## 8) Recommended installation procedures

### Placement on top of existing floor (loose lay)

If Trio Scraper Aluminium is installed on top of an existing floor, it is recommended that the mat include a PVC edge profile to avoid a tripping hazard. It is also recommended that mats measuring under 4m<sup>2</sup> (2m x 2m), not be loose lay as there is insufficient weight to exert pressure on the surface, resulting in the non-slip backing being ineffective.

### Placement in a mat well

If Trio Scraper Aluminium is placed in a mat well, it can be loose lay or bonded to the surface. Bonding is recommended to support rolling traffic over the mat. For gluing, Bison Textile Adhesive is recommended but any wall to wall carpet adhesive would be suitable.

The mat well should be level, free of dirt and impurities and be a minimum depth of 14mm (measured from the level of the existing floor). If the mat well is any deeper, a non-elastic underlay must be inserted to reduce the depth to the suitable height of 13 to 14 mm. Doors must be checked for sufficient play in height otherwise movement of the door will cause damage to the mat.

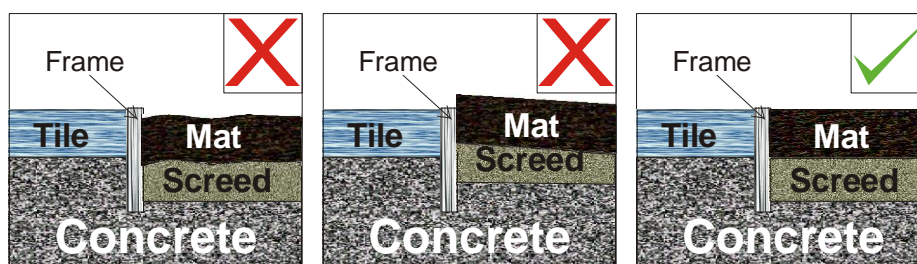
### Cut to size

If the mat well is complete, the mat can be cut to size in advance. However, experience tells us that mat wells are all too often not perfect rectangles so cutting the mat in advance does result in an imperfect fit. The mat can be cut to size with a Stanley knife in the textile direction. The other direction should be cut by an angle grinder. Each aluminium bar has to be grinded separately over the whole length from the top down. Then in one solid move the angle grinder will cut the carpet passing the aluminium bars which are already cut.

### Site and Screed Preparation prior to Mat installation

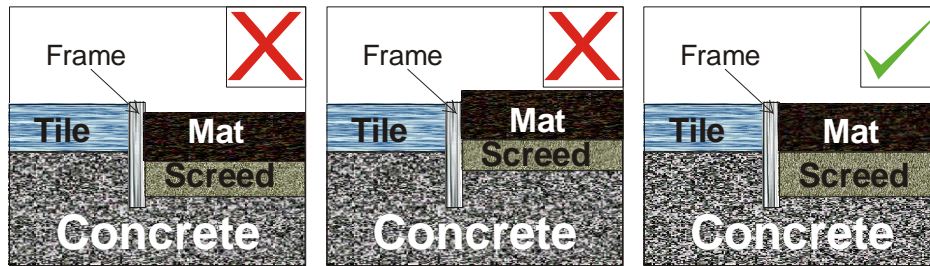
In order for a mat to be installed according to spec and to perform well beyond its intended life cycle, and to avoid bending of the aluminium bars it is imperative to take note of the following when preparing the site for installation :

1. The screed needs to be even and level with a uniform depth across the full area of the recess within 1mm.

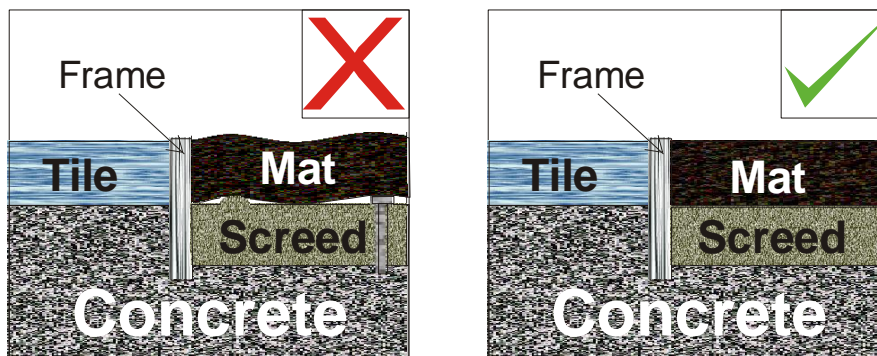




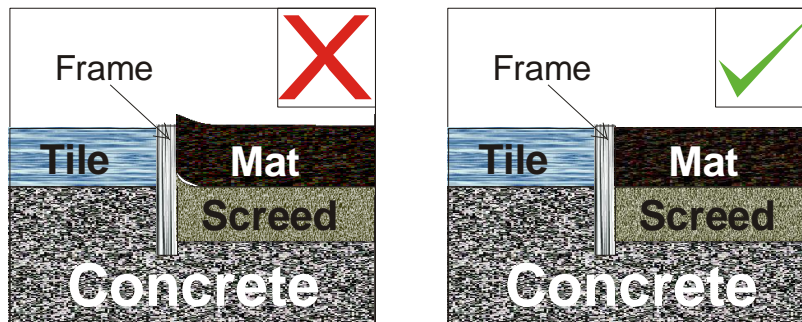
2. The depth of the recess should be within a tolerance of 1mm of the thickness of the mat to be installed.



3. All debris needs to be removed from the screed prior to installation. Debris include tile cement and grout left behind by contractors, temporary fasteners used to anchor frames or other structures and any other object or material that would render the screed surface uneven or irregular.



4. Where the screed meets the mat-well / recess surrounding frame, the screed should be square to the perpendicular edge of the frame. Generally screeds tend to form a meniscus at the frame and thus the screed closest the frame is not within the 1mm spec.



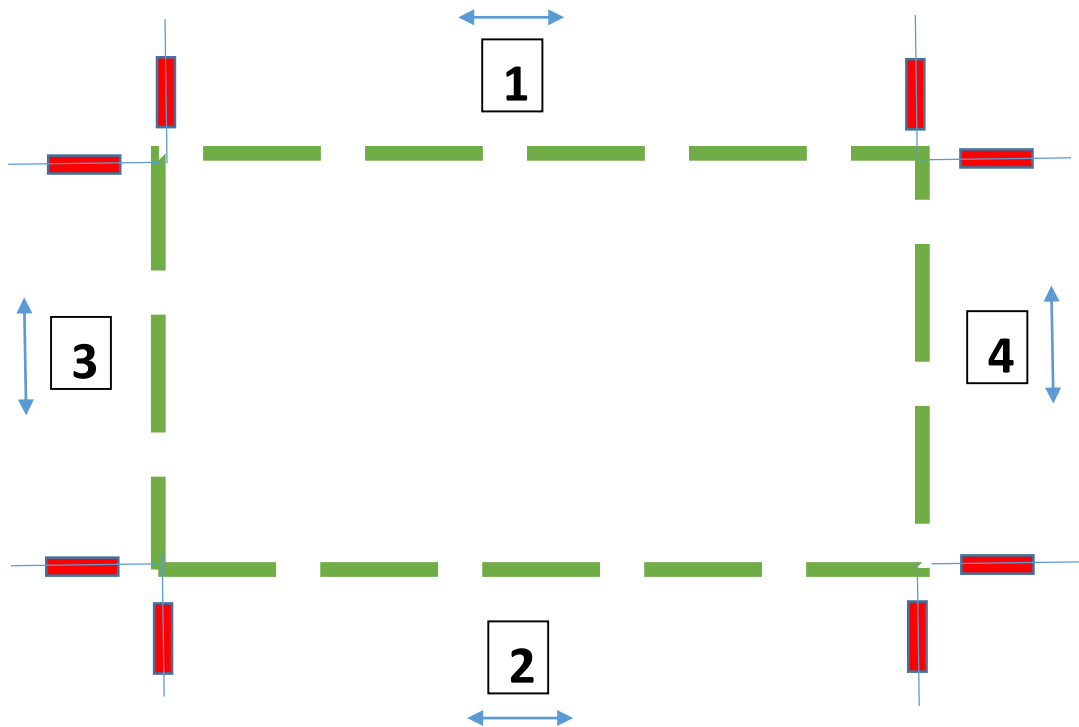
5. Mats cannot be installed in active entrances as the recess needs to remain clean in order for adhesives to bond properly. The unnecessary disturbance of the process of the mat installation could hinder the outcome of the quality of the installed mat. There are some steps that are very time frame specific such as the application of adhesives and the subsequent bonding of the mat to the screed. Any disruptions during these critical stages could be disastrous. Other stages are very sensitive to movement of the mat such as when marking and trimming a mat to fit a recess.

6. Did you know that recesses are generally not square or straight and even a deviation of 2mm could cause an unsightly gap between the mat and the recess frame. On a mat that is 10 meters long this amounts to a tolerance of only 0.02%.

7. Mats cannot be installed over wet or uncured screeds due to the presence of excessive moisture that would render the bonding agents ineffective.

*Great screeds make great mats*

**How to install in a recess.**



Necessary tools: 1 straight edge that does not bend and maximum 10 mm thickness, Stanley knife, **paper tape**, wooden cutting board for protecting the floor against cutting marks and a pencil. Make sure you have your health and safety file and that the area where you will be working is cordoned off and in rule with the safety specifications.

Here above you will see a recess of 100 cm X 200 cm portrait orientation. The walking direction will be in the length of the 100 cm.

Step 1: You cut the mat 110 cm X 205 cm from the roll to cut it afterwards to size.

Step 2: You put a paper tape on top of the existing floor in all 4 corners vertically and horizontally (**red blocks on the drawing is the tape**)

Step 3: You take a straight edge and put it in the length of every profile of the recess. Then you mark this line on top of the tape. You have now an extension of the recess lines.

Step 4: You take the mat and you put it over the recess and then you can see the extended lines on top of the tape outside the mat. First you look for the best solution so that the lines of the carpet are exactly divided top and bottom inside the recess lines.

Step 5: Put a piece of paper tape on top of the mat at position **1** at the drawing making sure that the line on top of the floor can be projected on this tape. Take the straight edge and align it with both markings on the floor end then mark the tape on top of the carpet with a pencil.

Step 6: Then you move the mat a little bit away from the recess so you have a solid floor where you can put the cutting board on. Then you put the mat on top of the cutting board and align the straight

edge with the lines on top of the tape on top of the mat and you cut. TIP: Sit with your knees on top of the straight edge so that it cannot move under any circumstance. Also cut the mat in several movements. Do not try to cut through the mat in one time.

Step 7: Repeat step 5 and 6 but at position **2**. The only difference here is that instead of aligning the straight edge with the lines on top of the mat, you move 5 mm away from the lines towards the inside of the mat. This will give your 5 mm space between the mat and the inside of the recess because the mat can expand and also then something could be put in between the recess and the mat to get it out for extensive cleaning only. Also only possible if the mat is not glued in.

Step 8: repeat step 5 and 6 for position **3**

Step 9: repeat step 7 for position **4**

### **Installing Aluminium products like Alumat, trio scraper aluminium and alu brush.**

Here the procedure is completely the same as above with the only difference that you cannot cut in the aluminium profile in the length of the profile. This is not a problem if you do the aligning correctly like explained in step 4. Cutting through the aluminium orthogonal to the length, is not a problem. Here we use an angle grinder with a thin blade of 1.2 mm and 115 or 125 mm diameter. The cutting process through aluminium is available on video and can be send to you to see. Always cut top to bottom and allow the blade to cut avoiding too long contact with the aluminium. If there is too long contact with the blade grinding the aluminium the results will be that the aluminium turns brown on colour and the glue could release from the profile due to the heat.

### **Gluing the mat inside the recess.**

For gluing the mat inside a recess the screed needs to be well prepared like explained in the product specs. Also it needs to be free of dust and therefore I recommend vacuum cleaning. Using a brush will not be enough. The following safety measures have to be taken: Wear protective gloves and were the right protection not to inhale the fumes of the glue. Also make sure no work is being performed where the glue could ignite due to sparks or open fires. Therefore works like welding, grinding or smoking are not allowed near the installation site. The glue used is a super contact glue ( Adtech S 11 ) and 1 litre can cover +/- 3 m<sup>2</sup> (0.5 litre on the recess and 0.5 litre on the mat). The tools you need for gluing are an empty 5 litre container where the side is cut open to contain the glue and a left over piece of carpet which will act like a brush to apply the glue. Also a rubber hammer or a heavy roller to apply pressure after the gluing on top of the mat. First you glue the recess allowing it to dry for about 20 minutes in a temperature of at least 20 degrees. If the temperature is lower the drying time will be longer. Then the glue has to be applied to the bottom of the mat. Also there the drying time has to be respected of +/- 20 minutes. Put the mat in such a position that it can be for installing easily tipped over into the recess because one applied pressure between the recess and the mat, moving the mat is impossible. Once in position you can hammer the mat onto the floor or use the heavy roller. This procedure is only applicable for smaller mats.

For bigger mats following procedure should be followed: Put the mat into the recess into its perfect position. On one side an installer will have to sit on top of the mat. Then the mat is flipped over towards the installer sitting on the mat and he will hold back the mat. Another installer will then glue the recess and mat for +/- 20 to 50 cm and after the drying time the mat will be released and hammered down. Once there is good contact the mat can be flipped over to the already attached

side and then the rest of the mat and recess can be glued. After the drying time the mat can be flipped back and everything will be then hammered into position.

#### **9) Applying a PVC edge to the Trio Scraper Aluminium**

The PVC edging is applied by gluing it into the underside of the mat. As extra reinforcement, it is recommended that the PVC edging is also stapled (using a staple gun) to the mat. For further guidance on the most effective brand of staple gun, please contact Debomat directly.

#### **10) What about guarantees, warranties?**

Debomat N.V. provides a 3 year warranty on the quality of all our entrance matting. Debomat N.V. guarantees that all entrance matting will be free from any defects in material and workmanship at the time of sale, to original purchaser, under normal usage. Should any product, within the warranty period, prove to be defective in material and/or workmanship under normal usage, Debomat will replace the product at no additional charge (except as otherwise stated herein) provided that the product has not been subject to abuse, misuse, misapplication, neglect, accident, disaster, alteration or modification.

Normal wear and tear is not covered under the warranty.

NOTE: THE ABOVE WARRANTY IS THE ONLY WARRANTY PROVIDED BY DEBOMAT N.V. AND MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY OF ANY KIND.

UNDER NO CIRCUMSTANCES WILL DEBOMAT BE HELD LIABLE TO THE CUSTOMER FOR DAMAGES FOR LOST PROFITS, LOSS OF GOODWILL, OR OTHER INDIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE, SUCH PRODUCT PURCHASED, EVEN IF DEBOMAT HAS BEEN ADVISED, OR SHOULD HAVE KNOWN, OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY THIRD PARTY.

#### **Use and Care of Debomat entrance matting**





- Mat should be vacuumed weekly and in high traffic areas more frequently. Should a claim be lodged and dirt makes up more than 10% of the weight per m<sup>2</sup>, the warranty is null and void.
- A maximum of a 3,000 people per day over a 5 year period is guaranteed
- The warranty is effective if the mat no longer performs a cleaning function, within 3 years of purchase date.



## 11) What about CE declaration?



### DECLARATION OF PERFORMANCE No. DOP-CPR-«1.004»

1. Unique identification code of the product-type or product family: «068 010 008 500 - Trio Scraper Alu WB - 200 cm x 10 m»					
2. Type, batch or serial number or any other element allowing identification of the construction product: Entrance Matting					
3. Intended uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer: Use as entrance floor covering(s) within a building according to the manufacturer's specifications and installation practices in accordance with EN 14041					
4. Name, registered trade name or registered trade mark and contact address of the manufacturer: Trio Scraper Alu, Frank Van Dyckelaan 12, 9140 Temse, Belgium					
5. Where applicable, name and contact address of the authorised representative (distributor, importer):					
6. System of assessment and verification of constancy of performance of the construction product: AVCP «system 4»					
7. In case of the declaration of performance concerning a construction product covered by a harmonised standard: «system 4» Not applicable					
8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued: not applicable					
9. Declared performance:					
Essential characteristic	Performance	Harmonised technical specification	Essential characteristic	Performance	Harmonised technical specification
Reaction to fire EN 13501-1		EN 14041:2004 AC:2006	Electrical behaviour (dissipative) «EN 1081» or «ISO 10965»	Not applicable	EN 14041:2004 AC:2006
Content of pentachlorophenol EN 12673			Electrical behaviour (conductive) «EN 1081» or «ISO 10965»	Not applicable	
Formaldehyde emissions «ENV 717-1» or «EN 717-2»			Thermal conductivity «EN 12524» or «EN 12667»	Not applicable	
Slip resistance «EN 13893»			Water-tightness «EN 13553»	Not applicable	
Electrical behaviour (antistatic) «EN 1815» or «ISO 6356»	Not applicable				
10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.  Signed for and on behalf of the manufacturer by:  De Bondt Tom, CEO  Temse, 01/09/2013					

## 12) What about cleaning procedures?

The care and maintenance of Trio Scraper Aluminium is essential to maintain the durability and appearance of the mat. Soiling and general wear has a negative impact on the appearance of the entrance mat and should be prevented by instituting an effective cleaning program. A regular cleaning program prevents premature replacement of the entrance mat. Installation of an exterior mat such as Super Scraper will reduce the soiling of the Trio Scraper Aluminium. Avoid excessive use of cleaning products. If they are used then ensure they are washed out of the mat thoroughly as any residue can attract dirt.

### *Vacuuming*

Regular vacuuming with a sufficiently powerful vacuum cleaner and brush is essential to maintain the condition of the mat. Heavy traffic areas should be vacuumed more intensively than lighter traffic areas.

### *Stain removal*

Stains should be removed immediately (before it dries) with a neutral stain remover. Chewing gum can be removed with ice by turning the gum to a solid and then removing it with a knife or scraper.

## 13) What about tests and certificates?

Certificates are available on request: Fire classification to European standards, Anti-slip certificate, Reach compliant certificate which includes the VOC, wheelchair compliant, etc. We work with Centexbel in Ghent (associated with the Textile University of Ghent) which is fully licensed to carry out testing and produce certificates, so please do not hesitate to contact us.

## 14) What can go wrong?

Over the years Debomat has worked with a number of distributors and customers and has valued experience of installations and the various obstacles and issues that arise. Below please find some typical examples and their relevant solutions:

**When I put 2 pieces together in the same installation, the colour is different between the 2 pieces.**

*The reason for this is that one of the pieces has been turned around 180 degrees. It is important that the arrows on the backing are matched for both pieces in the same direction, which will ensure a colour match.*

**The mat does not want to lie flat.**

*In a mat well: the reason for this could be that the mat was cut exactly to size and a few hours later it has expanded. Solution: cut 5mm off the length of mat. This should be done prior to installation so that a re-visit to the customer is not required.*

*Loose lay: In colder conditions the mat will try to revert to its original form, namely rolled up. The solution for this is to "break" the mat. This means that you counter roll the mat in the opposite direction for the required result. The mat will should settle into a flat position within 24 hours if the temperature conditions are above 20 degrees Celsius.*

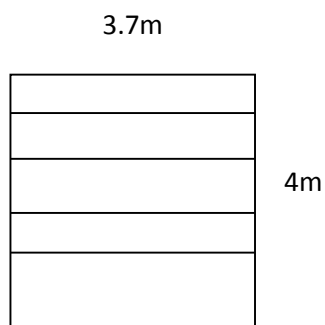
**I have a piece that is damaged on the mat, what now?**

*It is possible to cut the damaged piece out and to replace it with a new piece but, depending on the age of the mat, there could be a colour variation between the old and new material. This is only possible if the textile is damaged. Of course the new piece has to be glued down in the recess or bonded together with a new piece of textile backing.*

*If the aluminium is damaged, you can try to bend the aluminium bar back to its original position but the success will depend on the amount of damage that has been done.*

**I have an install where the dimension of the recess is exceeding the 2 meters left to right, what should I watch out for?**

*First of all you have the available widths of 2.5 and 3 m to solve installs which are wider than 2 m but what about an install exceeding 3 m?*



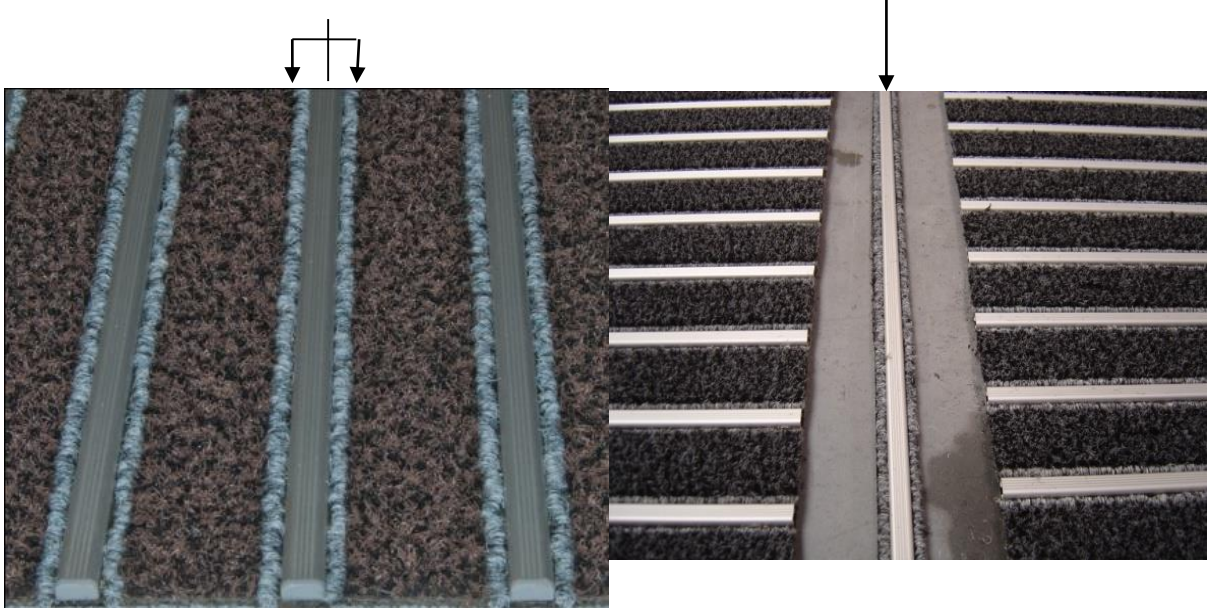
For purposes of explaining, we will use the size of 3.7m x 4.0m with the aluminum profiles running along the direction of the 3.7m.

Under normal circumstances, you would cut a piece of 2m x 4m straight from the roll and another piece of 1.7m x 4m to make the size 3.7m x 4m. However, aesthetically, the mat would not look balanced as the one side would be larger than the other and the ribs may not necessarily line up.

The following steps would therefore need to be followed:

**1.**

Cut off two strips of 2m lengths of the aluminum insert with grey carpet profile, and glue these pieces one after the other with a contact adhesive into the center of the existing mat well.



**2.**

Cut a 4m piece from the Trio Scraper Aluminum roll and place this piece of 2m x 4m to the right of the glued in aluminum strip running down the center of the recess. This piece will extend over the recess on the right side by approximately 15cm.

**3.**

With an angle grinder (using a 1mm thick blade), cut the right hand side of this piece so that it fits into the recess.

**4.**

Repeat steps 2 and 3 to complete the mat on the left hand side of the aluminum strip.

**Finished Look**

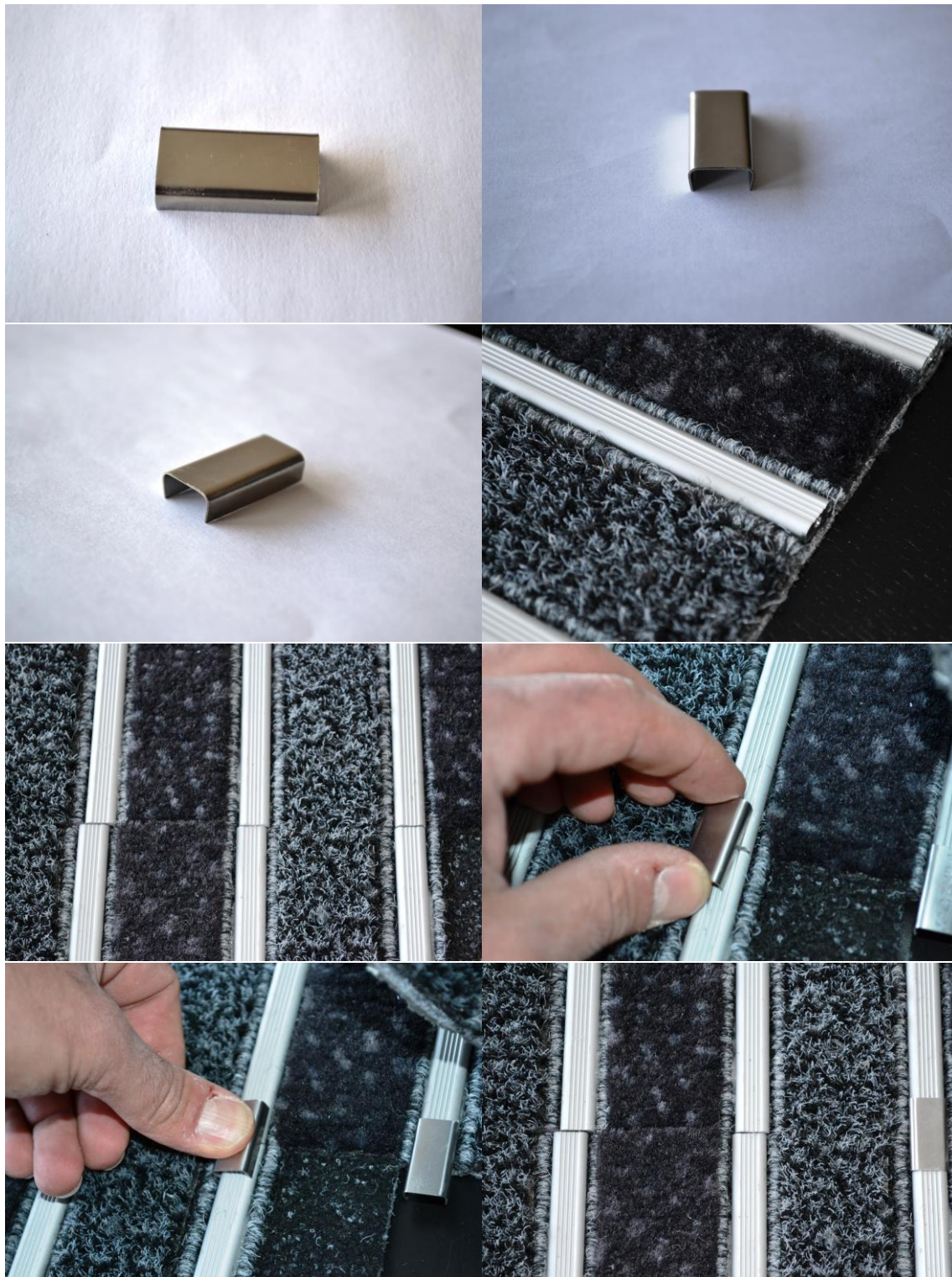


You can also use a divider like a T or H- profile in aluminum but then the not aligning of the aluminum ribs is more visible.

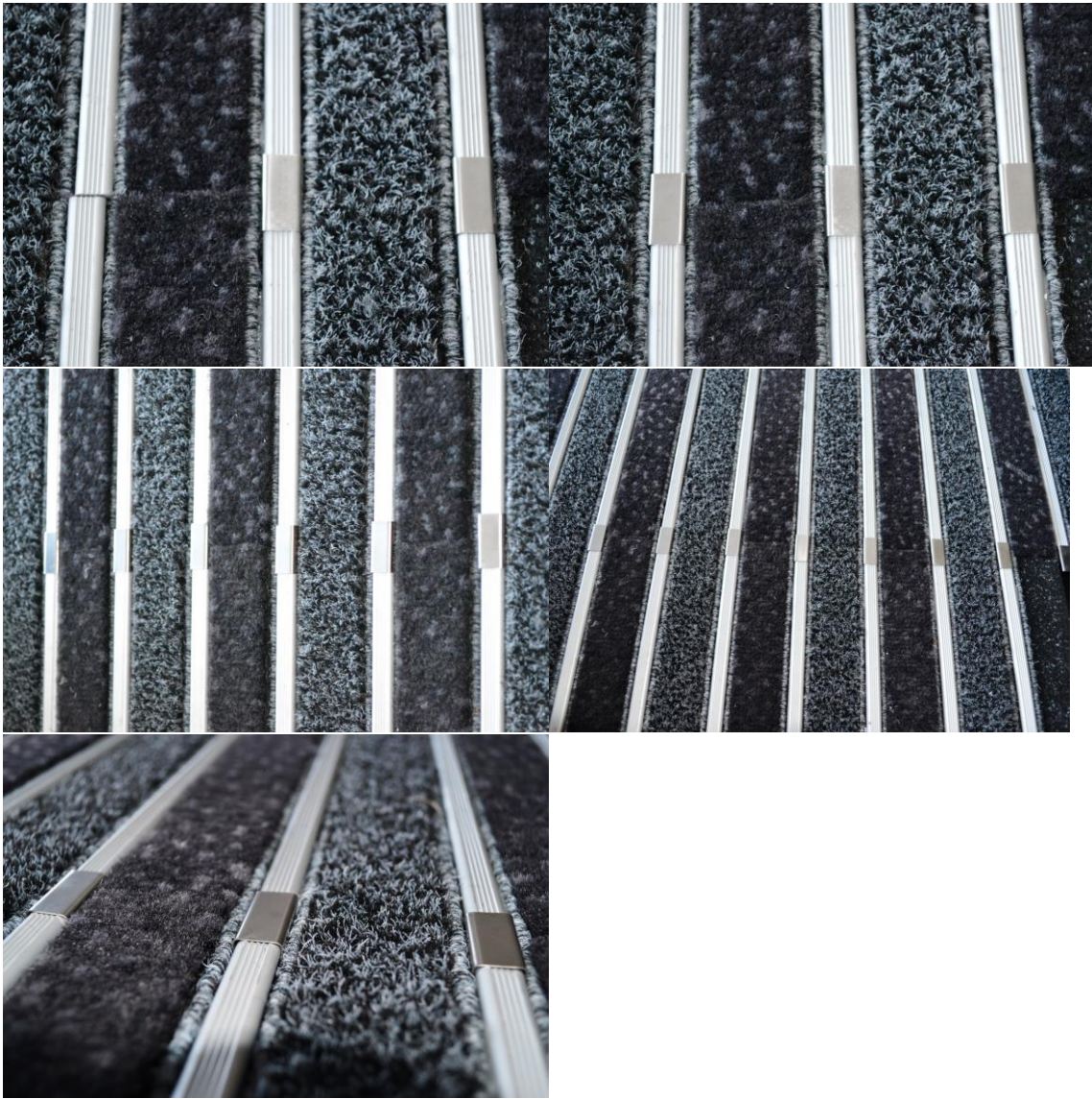


### **Second solution to connect 2 widths to eachother: The alu clip.**

Because several Distributors made a remark that if you put 2 rolls of alubrush next to eachother, that the aluminium profiles do not align. To solve this, several Distributors used a profile in between to separate the 2 pieces. Now with this clip, it should be no problem anymore.

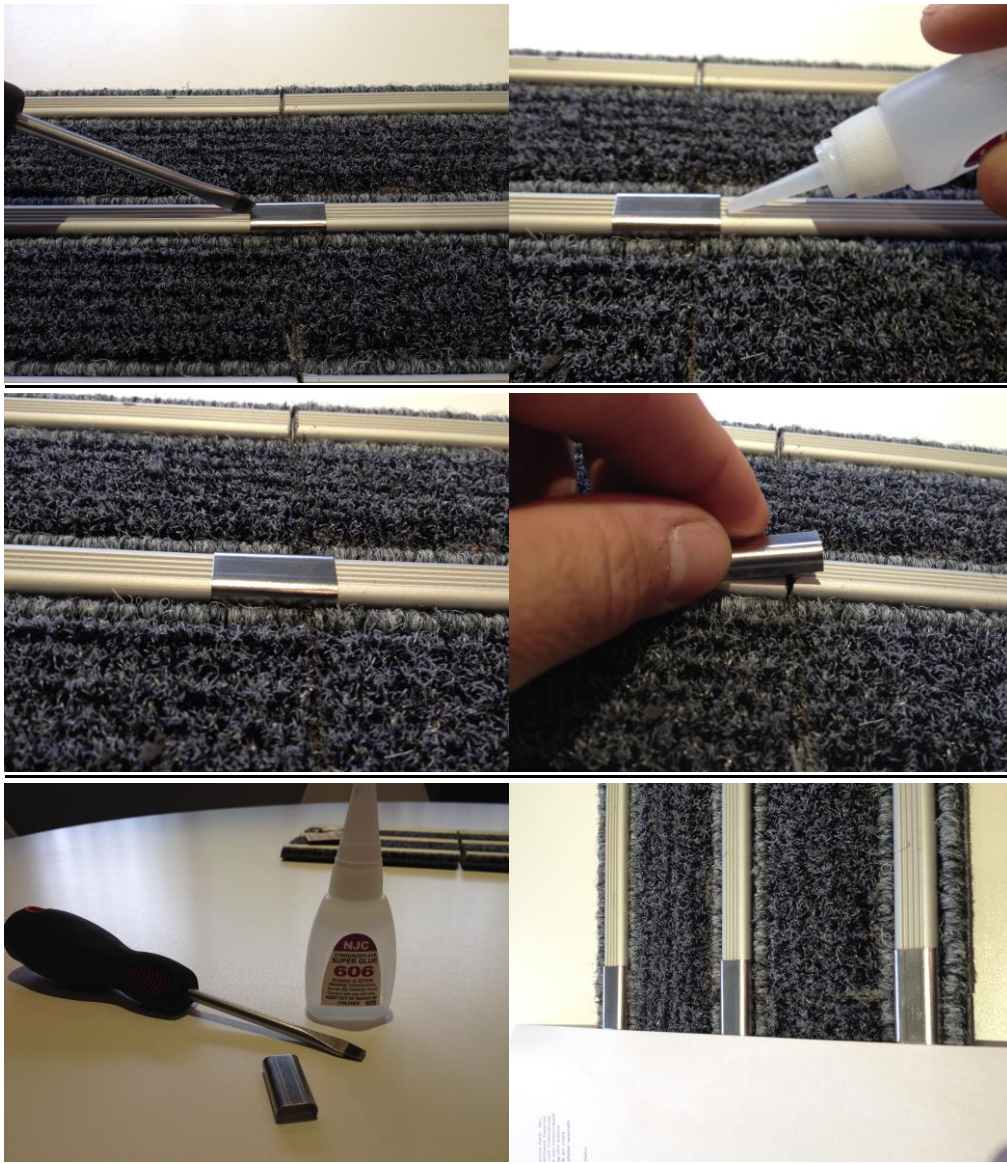






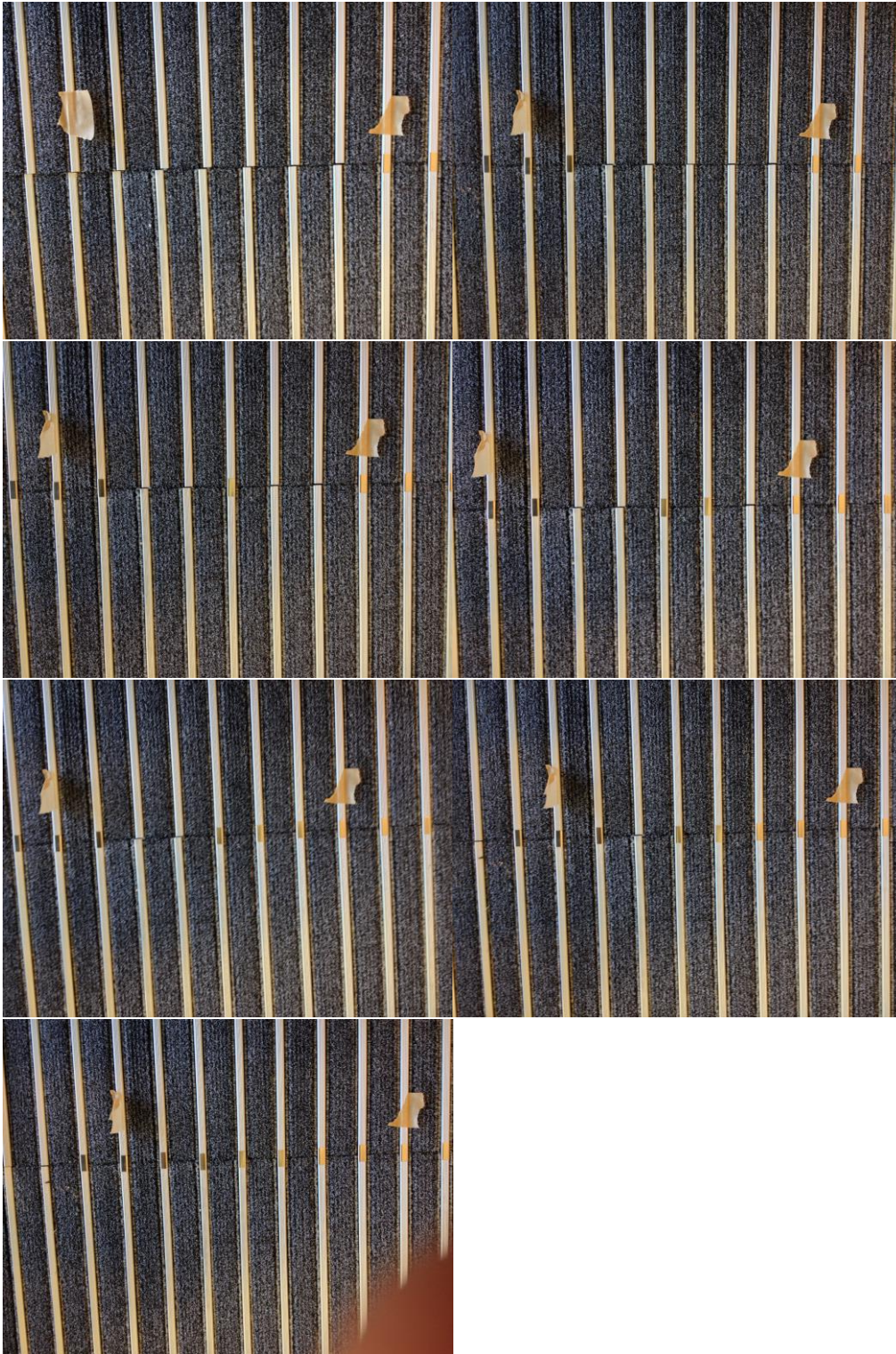


**Positioning the clips with cyanoacrylate glue.**



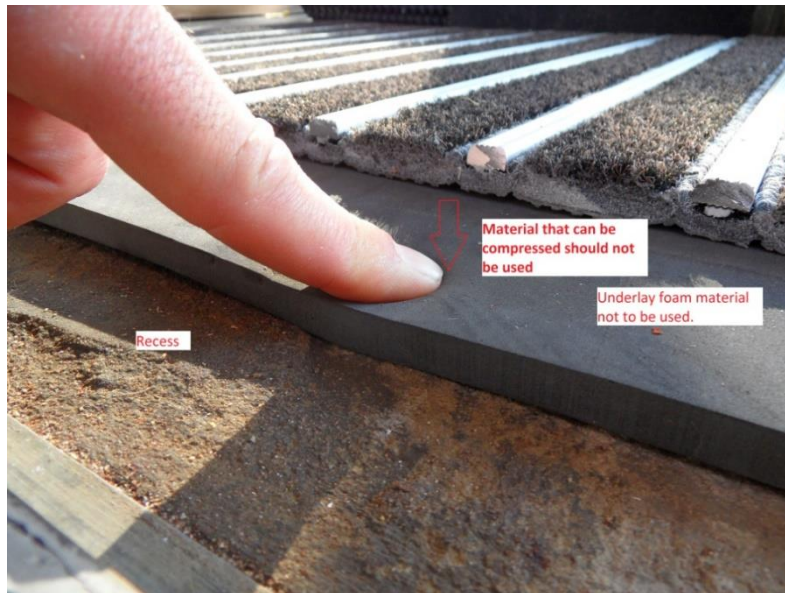


**The right order of applying the clips:**



### **Important remark:**

The Trio Scraper Aluminum has to be always installed upon a solid underlay flooring. In a high traffic area it is recommended that the Trio Scraper Aluminum is glued down onto the floor inside the recess. In case the recess depth is bigger than the thickness of the mat, it is recommended to use a solid underlay floor like wood or firm plastic sheets to fill out the height difference. Also filling out the recess with a concrete/cement fast drying mixture is a possibility. If the under floor exists out of a compressible material, the possibility is there that if a very heavy weight is pressing on the aluminum profiles, these could bend. See picture.



**When I have cut the aluminium bars the edges appear to be brown. Where does this come from?**

*When cutting through the aluminium bars it is important not to grind too long at the same place because the aluminium heats up too quickly and this will result in burned anodisation of the aluminium bars. This burn will result in a brown spot at the place where has been grinded. While cutting allow by lifting the blade regularly to cool the aluminium.*

**After cutting the aluminium the edges seem to be very sharp.**

*This will only be the case if you cut the mat from the bottom and not from the top down. Also always use the recommended thin blade of +/- 1 mm. Not the standard cutting tool of 3 mm thick.*