



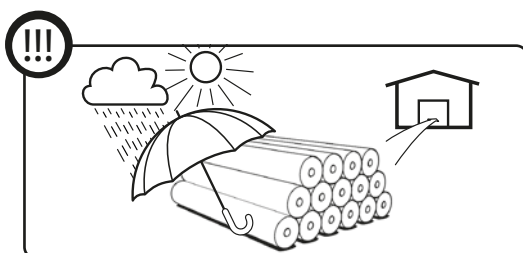
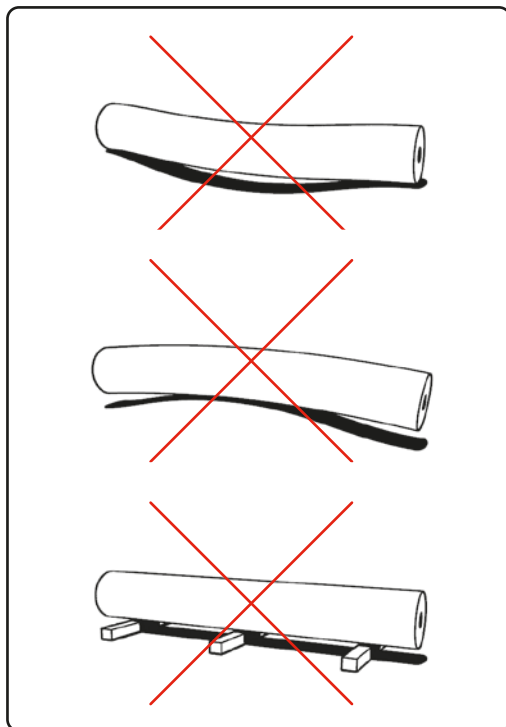
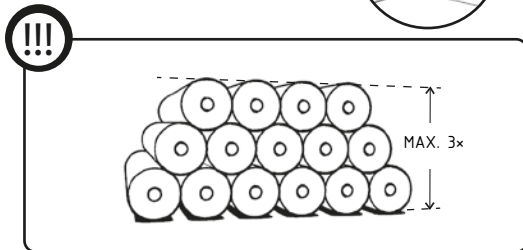
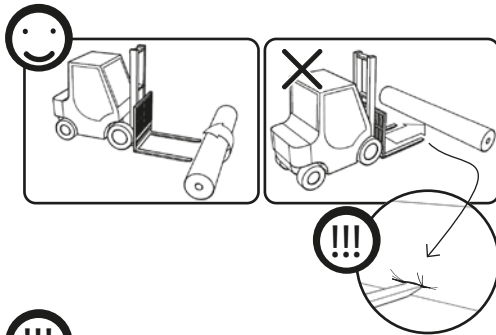
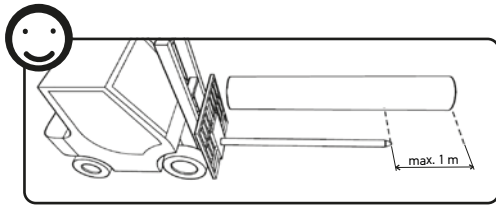
PADEL - INSTALLATION AND MAINTENANCE MANUAL

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This document was created to provide basic information for designers, contractors and investors. The document does not replace project documentation (or contractual documents) and is only a recommendation. With regard to the continuous improvement of products and technological processes, the information contained therein may be changed by JUTA as without prior notice.



1. Storage and handling

By following the above rules, you will eliminate the possibility of damage and preserve the quality and properties of the product.

1.1. Method and means of manipulation

- For unloading and handling of rolls, we recommend using handling equipment with a steel mandrel of a minimum length of 3 m.
- If only handling equipment with forks is available, we recommend rolling the lawn rolls on the forks to prevent them from being punctured.
- When loading, unloading and other handling of the material, it is necessary to exercise extreme caution to avoid mechanical damage to the products. We recommend loading and unloading using equipment equipped with a steel mandrel and using a ramp, which minimizes the risk of damage.
- During material transport, it is necessary to ensure that the tensioning straps are properly supported to prevent damage to the material.

Note: When following the above recommendations, it is necessary to proceed in accordance with all generally applicable regulations to ensure occupational safety.

1.2. Storage rules

- Artificial turf should ideally be stored in covered, dry, dust-free and well-ventilated areas for a maximum of 6 months.
- If the rolls are stored outdoors, they must be adequately protected from the effects of sun, wind and rain.
- Rolls must be stored on a solid, stable, drained, flat surface (asphalt or concrete surface), in a maximum of 3 layers.
- Individual rolls must be stored so that they are supported along their entire length. During storage, the rolls must not be exposed to mechanical stress (especially bending) to prevent damage or deformation of the products, or deterioration of their properties.
- The recommended temperature for storing lawn rolls is 5°C to 25°C, with a relative humidity of up to 60%.
- The temperature of the material during storage must not fall below -20 °C and must not exceed 40 °C. If lower or higher temperatures are expected, the material must be protected appropriately (e.g. by covering it).
- If the rolls are stored outdoors and the actual installation is done indoors, the rolls must be moved to the installation location for acclimatization (especially important in cold weather) at least 24 hours before installation (the relaxation time depends on the climatic conditions).
- Stored rolls must not be exposed to heat stress or direct sunlight.
- Artificial turf must not be stored together with chemicals or other substances whose inertness towards the stored products is not guaranteed.
- The duration of storage should be limited to the shortest possible time.

Failure to comply with the above rules may result in damage and deterioration of the artificial turf. By using the correct handling and transport equipment, correct procedures for transport, storage and handling, the quality of JUTAgrass products will be maintained. **Complaints about damaged rolls caused by incorrect handling and storage cannot be accepted.**

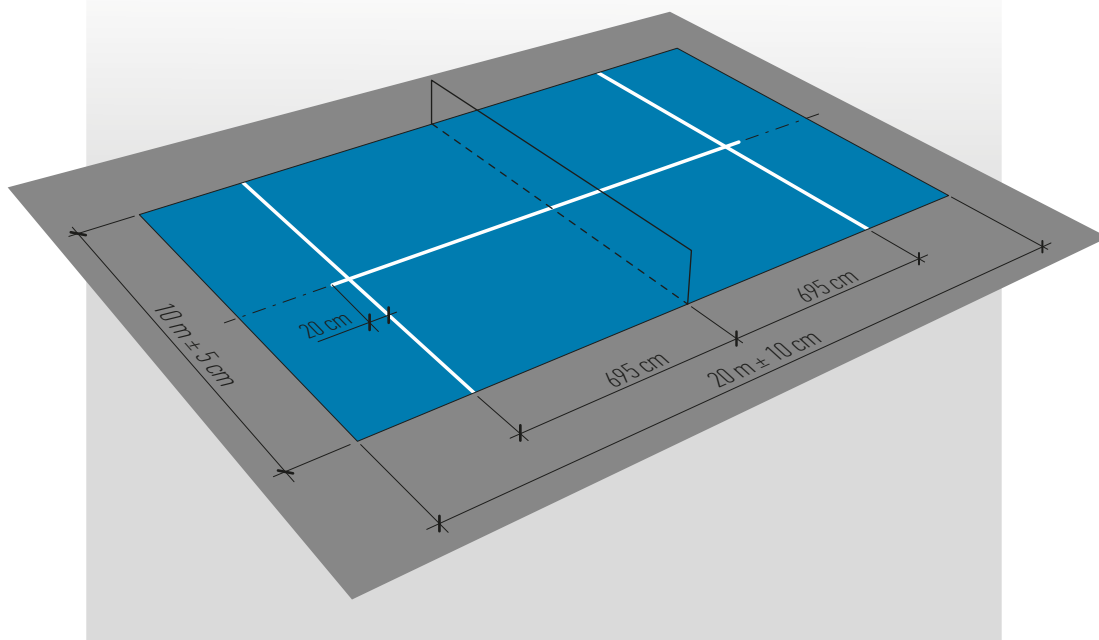
2. Substructure

The base structure must be made of homogeneous, water-permeable concrete or other similar material to ensure correct and regular ball bounce and to prevent water from accumulating on the surface. If the pitch is located near a slope, it is necessary to design construction modifications to prevent water from entering the pitch surface.

The flatness of the surface should be with a maximum difference of 3 mm per 3 m bar. Measured according to the 1/1000 rule. For surfaces without drainage concrete, a maximum transverse slope of 1% from the center to the outer edges of the court must be observed.

Padel court dimensions

A padel court is rectangular in plan, 10 metres wide and 20 metres long (internal dimensions) with a tolerance of 0.5%. This rectangle is divided in half by a net. On both sides and parallel to the net at a distance of 6.95 m there are service lines. The area between the net and the service lines is divided into two halves by a perpendicular line called the central service line. This line extends 20 cm beyond the service line. The court must be completely symmetrical and all lines must be 5 cm wide. The colour of the lines should contrast with the basic colour of the surface (most often the lines are white).



3. Installation of artificial turf

3.1. Climatic conditions

The overall quality and compactness of the surface is determined by the installation under suitable climatic conditions. After unpacking and unrolling the artificial turf, it is necessary to let the rolls rest (relax) so that they adapt to the ambient temperature and lose any internal tension.

Relaxation of the lawn is especially important when temperatures are very high or very low, or when there are large fluctuations between them (day/night). When the lawn temperature is lower than 10°C and there is a lack of sunlight, it is important to let the lawn lie down for a sufficient period of time. We recommend installing the lawn (unrolling) at temperatures above 10°C. At lower temperatures, the lawn becomes stiffer, more unyielding and handling during installation deteriorates. The gluing of lawn strips and lining must be carried out under the conditions specified by the adhesive manufacturer. The sand backfilling must not be carried out during rain or snow.

3.2. Instructions for laying artificial turf

When laying artificial turf, hereinafter referred to as UT, the following instructions must be followed:

- When installing individual strips, only construction mechanisms that will not damage the underlying structure must be used.
- The lifting force of the machine must be sufficient for the weight of the rolls.
- If the rolls are stored outdoors and the actual installation is done indoors, it is necessary to move the rolls to the installation location well in advance for acclimatization (especially important in cold weather).
- When handling a roll of artificial turf by rolling it, it is necessary to pay attention to the direction of the wrapping; when rolling in the opposite direction, the winding of the roll loosens and folds and creases are created in the roll.
- UT roles must be developed in a controlled and safe manner.
- Any damage to the UT caused during installation must be repaired accordingly.
- For any claim, it is necessary to provide photo documentation, the roll label and also immediately inform the responsible person who will contact the manufacturer. It is prohibited to work further with the material that will be the subject of the claim (cut, glue).

The following safety precautions must be observed on and in the immediate vicinity of artificial turf:

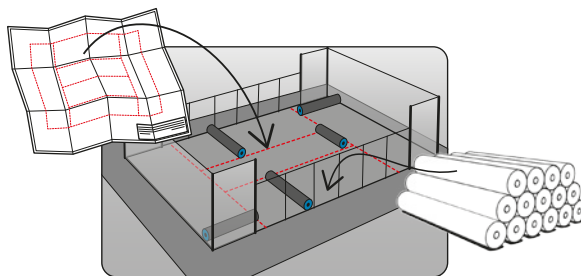
- No smoking
- Do not handle hot objects
- No cutting or grinding of metals
- No welding of metals or handling of open flames

3.3. Laying artificial turf

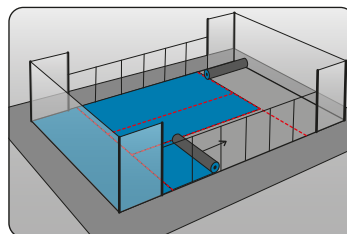
Before laying artificial turf, it is necessary to check the substructure and make a record of this inspection.

3.3.1. Preparation

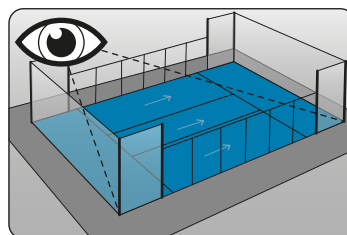
Placement and rotation of individual rolls on the surface according to the laying plan. Keep or document the label from each roll. Copy the numbers into the handover report and maintenance log.



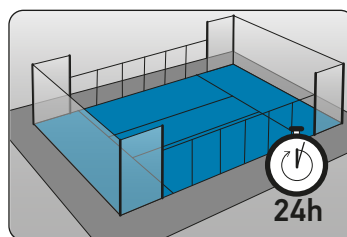
Roll out the artificial turf onto the area manually or using machinery.



All lawn strips must be oriented in the same direction.

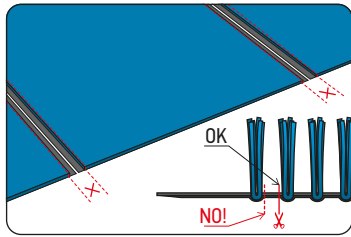


After unrolling the roll, it is necessary to let the lawn acclimatize, the relaxation time depends on the climatic conditions, the method and length of storage. The recommended relaxation time is 24 hours. Try not to create any folds in the lawn when laying.

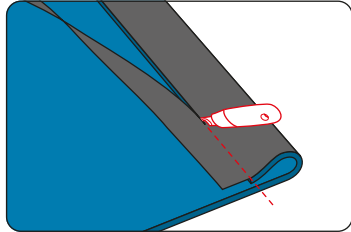


Recommendation:

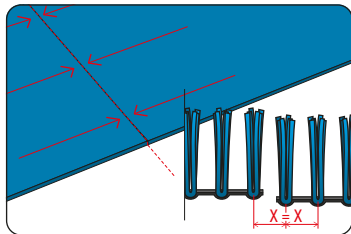
In the summer months, when high temperatures can be expected during the day, we recommend laying (setting down, gluing, trimming) artificial turf early in the morning, in the evening or at night, when temperatures are more stable.



Check the quality of the turf before starting to cut. If you find any visible defects on the rolls, installation must not continue until these defects have been corrected.

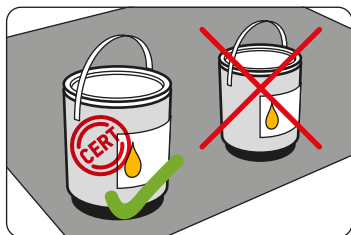


To cut the edge, fold the lawn back about 30 cm. Make the cut on the back side using a special cutter or a sharp snap-off knife.

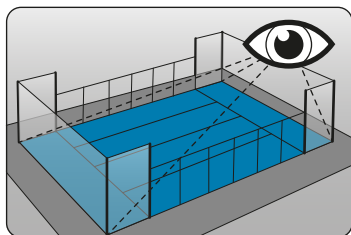


Place the cut strips of turf together. Leave a gap between each strip of turf that is no more than the width between the rows of fibers. The strips of turf must not overlap each other, they must be sufficiently taut, without waves or unevenness.

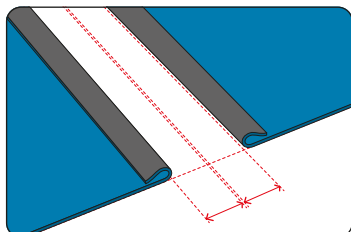
3.3.2. Bonding



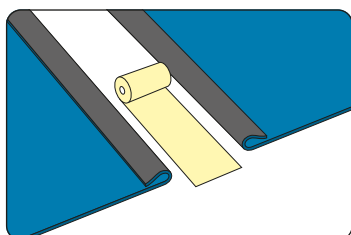
Use an adhesive approved by the artificial turf manufacturer to join the turf.



Before gluing, it is necessary to recheck the tension of the lawn and the width of the gap between the lawn strips.



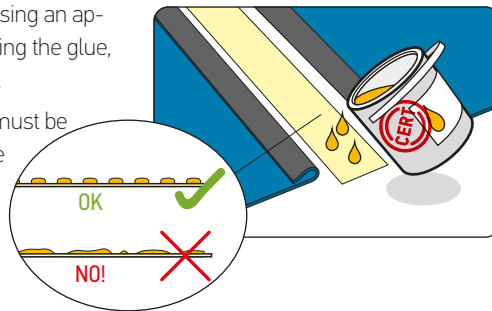
Fold the edges of both lawns to the wrong side. The size of the fold should approximately match the width of the tape used.



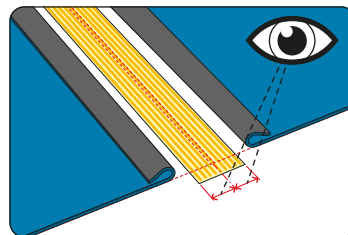
Insert the tape between the folded edges. The commonly used tape width is 30 cm.

Apply an even layer of glue to the tape. The glue can be applied using an applicator or a notched trowel in a min. width of 20 cm. When applying the glue, it is necessary to avoid creating areas with excess or lack of glue.

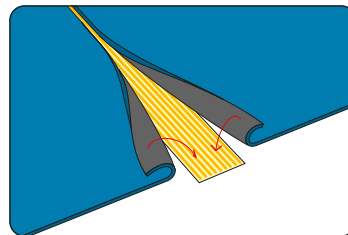
The notched trowels and blades used in the adhesive applicator must be checked to ensure that the adhesive dosage does not change. We recommend replacing the tools (blades) after approximately 700 m of joints.



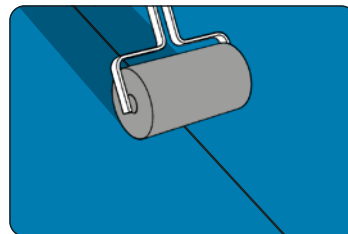
Before covering the edges of the lawn, it is necessary to center and tighten the adhesive tape.



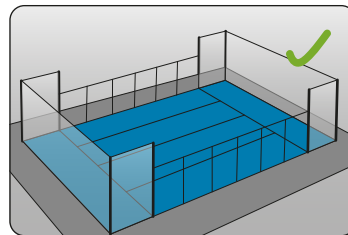
Before applying the lawn to the adhesive, check the correct amount of adhesive by applying a transfer (the adhesive must be applied to the entire back surface). Then carefully place the edges of the lawn into the adhesive. When applying the adhesive, it is important to prevent the lawn from being contaminated with adhesive. If this happens, the adhesive must be removed from the lawn only using products approved by the manufacturer to avoid damaging the UT.



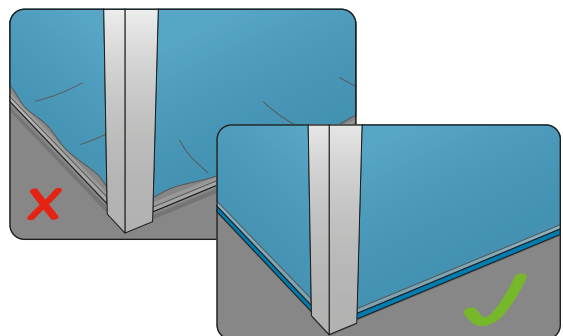
To ensure a perfect connection of the surfaces, it is necessary to roll or trample the joint while the adhesive begins to react (this time depends on climatic conditions).



After the glue has completely dried and hardened, it is possible to start fixing the turf around the perimeter of the area, lining the pitch and backfilling with silica sand. The hardening time of the glue is stated on the glue label and depends on the climatic conditions.

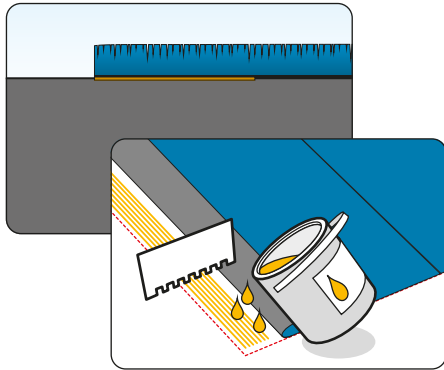


Trim the edges of the lawn after filling it with quartz sand so that approximately 1 cm of the lawn is inserted under the perimeter cage structure of the court.



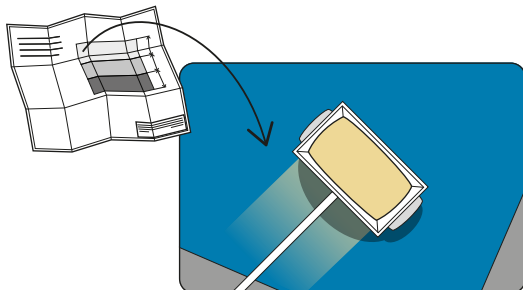
3.3.3. Fixing the edges of the lawn area

If the prescribed amount of backfill sand in the technical sheet is not adhered to, the edges of the lawn must be fixed. The edges of the lawn are fixed by gluing them to the underlying surface of the court (free from dust and dirt) using polyurethane adhesive applied with a notched trowel under the edges of the rolls (around the entire perimeter of the court).

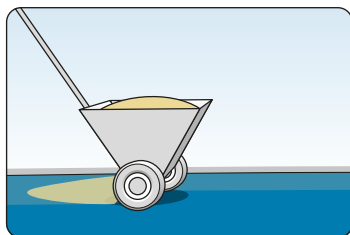


3.3.4. Backfill

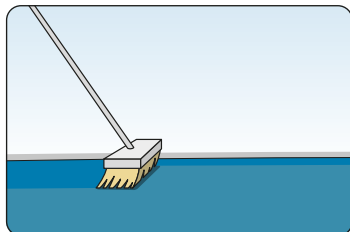
To determine the correct backfill material, its height and quantity, it is necessary to follow the technical data sheet or laboratory test of the product. The lawn and the backfill must not be wet to prevent the fibers from getting buried. This would result in a deterioration of the technical and aesthetic properties of the lawn.



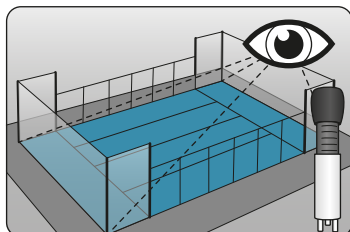
The backfill is applied to the artificial turf using special tools that evenly spread the backfill onto the turf in the required amount.



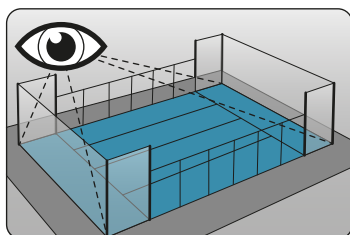
Backfilling must be done in smaller layers. After each layer is poured, the surface must be brushed with a rotary or flat brush to achieve an even layer.



During and after backfilling, it is necessary to measure the total height of the backfill. If the correct height and type of backfill are not maintained, the correct game parameters and product warranty cannot be guaranteed.



After completing the complete installation of the artificial turf, it is necessary to check the quality of the individual roll joints and the fastening of the lawn edge.



4. Tools needed for installation

A basic set of tools is required for laying artificial turf, which are designed for handling, cutting, stretching and gluing the turf. The set should include the following tools:

1 Pressure tool for gluing



2 Glue applicator



3 Line cutter



4 Pliers



5 Edge cutter



6 Grass cutter



7 Backfill height gauge



8 Spare blades



9 Special knife



10 Zone



11 Puller



5. Artificial turf maintenance

Systematic and professionally performed care for artificial turf is a basic condition for its proper operation and preservation of a long service life, both physical and functional. The intensity of care depends on the frequency of use, the type and degree of pollution (e.g. falling flowers, leaves and needles) and the condition of adjacent areas. All maintenance activities must be carried out effectively, thoroughly and regularly.

Proper maintenance is the basis for:

- surface quality
- long service life
- safety

5.1. Maintenance log keeping

The diaries will allow the operator to record the date, type of activity and duration of ongoing maintenance, training of workers, machinery used, etc.

Maintenance is based on simple principles

- maintaining a clean surface
- maintaining the correct backfill height and its uniformity
- repair minor defects before they become more serious

Keeping and archiving a logbook for the lifetime of the product is a condition for recognizing the product warranty.

5.2. Brushing the surface

The main purpose of brushing is to even out the fill and ensure a uniform surface. Another important reason is to prevent the fibers from lying down and creating an unwanted flat surface. The fibers always tend to lie in a certain direction, so it is important to brush regularly in all directions to keep the fibers straight.

5.2.1. Intensive brushing

These are rotary brushes that are suitable for straightening already fallen fibers, as well as for removing unwanted material from the surface of the lawn, especially in the top few millimeters of the infill.

Particular attention must be paid to areas where there is a lot of stress. It is in these areas that the flatness of the surface is most affected by the intensity of use.

Recommendation: The most effective way to brush a surface is dry.

Warning: Rotary and straight brushes must not be made of steel bristles or a combination of steel and plastic bristles.

5.3. Filling the backfill

During the use of the artificial turf area, it is necessary to continuously monitor the state of the backfill height and replenish it to the required value. Particular attention must be paid to areas where there is a lot of stress, as they are prone to movement and loss of backfill material.

After filling the backfill, it is necessary to thoroughly brush the entire area in all directions to achieve even properties.

5.4. Cleaning and checking connections

Machines for cleaning artificial surfaces are divided into machines for removing fine and dusty dirt and machines for rough cleaning.

Machines for cleaning fine dirt, dust and microparticles use pneumatic and vacuum systems for cleaning. We recommend that this cleaning be carried out once a year by a specialized company.

Cleaning of coarse dirt from the top of the backfill should be carried out as part of weekly maintenance. Machines for coarse cleaning work on the principle of sifting the backfill through sieves. This removes plant residues and other dirt from the surface.

The growth of algae, mosses and other growths can be prevented by regular visual inspections and subsequent mechanical treatment. Timely manual removal of plants will prevent them from taking root and multiplying. Removal of plants is done manually, without the use of sharp tools, so as not to damage the primary underlying fabric or pile.

Check for possible joint defects: in case of damage to the joints of the lawn, it is necessary to contact the installation company as soon as possible and insist on immediate repair within the scope of the warranty provided. Do not carry out repairs yourself!

5.5. Snow removal

When mechanically removing snow, extra care must be taken to avoid damaging the artificial surface. A front blade with a rubber edge or a snow blower can be used to remove snow. The blade or blower must be set above the lawn surface and must have guide wheels.

5.6. Artificial turf inspection

Artificial turf wears out with normal use, as well as weather conditions, air pollution, etc. It can be damaged mainly by improper use (inappropriate footwear), carrying out activities for which the turf was not intended, and insufficient maintenance.

In order to detect early on whether the lawn is damaged or if there is a risk of extensive damage, it is necessary to carry out regular inspections. Any defects found must be repaired immediately. Insufficient or delayed maintenance can lead to a risk of injury and may invalidate the product warranty.

6. Terms of Use JUTAgrass® artificial turf

The following standards must be observed when using artificial turf areas:

- Appropriate footwear must be used that does not damage the grass fibres or cause them to tear. Players are required to wear footwear designed for this type of surface. The use of shoes with metal studs (SG sole) is inappropriate and prohibited as it may damage the surface.
- The artificial surface must be used exclusively for the purposes for which it was designed and not for other activities or types of sports such as javelin throwing, discus throwing, roller skating, etc.
- It is prohibited to use chemical agents on artificial turf that are not approved by JUTA as. Some chemical agents may have negative effects on the backfill and lifespan of the synthetic turf, therefore we recommend consulting JUTA as in advance before using them.
- Over time, depending on the intensity of use, there will be losses of backfill material, which must be regularly replenished to maintain the functional properties of the artificial turf.
- When adding backfill material to a lawn, make sure it is of the same quality as the existing backfill. The material used for the addition must be approved for use with the specific type of JUTAgrass® lawn.

For safety reasons, smoking and handling open flames are prohibited on artificial turf. All heat sources can cause irreversible damage to the turf.

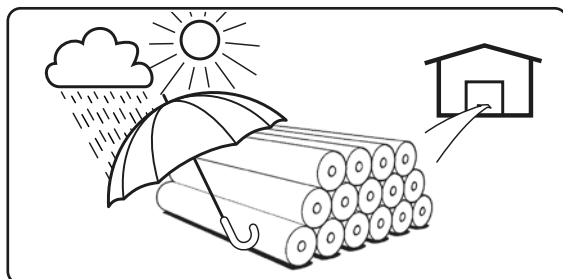
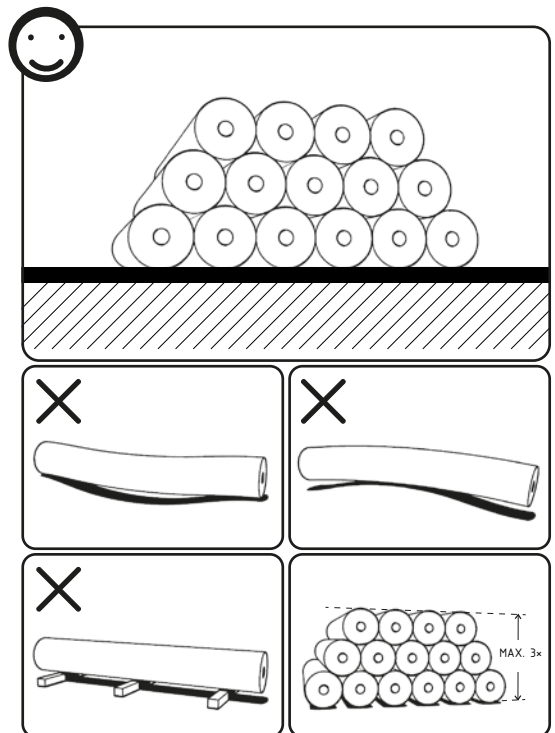
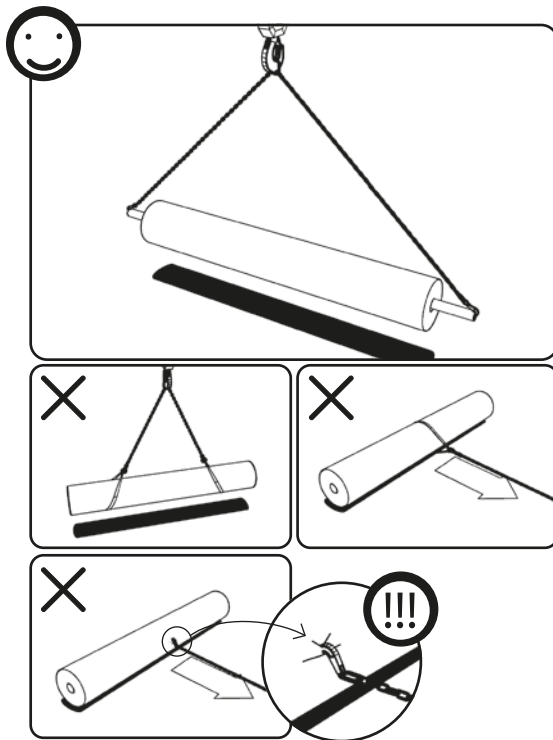
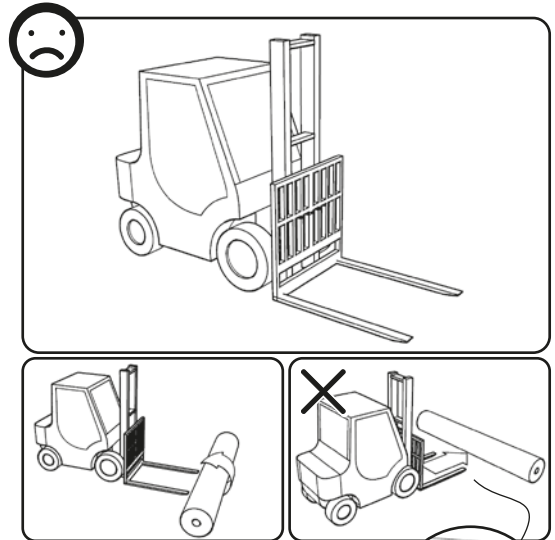
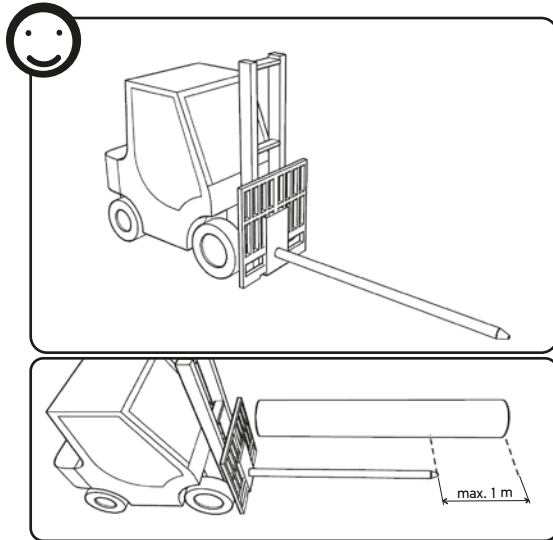
Entry onto the artificial turf is permitted only to machinery intended for lawn maintenance and approved by a professional company or JUTA as. The artificial turf must not come into contact with petroleum-based substances, including vehicle fuels. Always refuel outside the area. In the event of a leak, all leaked liquid must be immediately covered with sand or sawdust and then completely removed. Vehicles moving across the lawn must be equipped with low-pressure wide tires. When driving, a low speed in a curve and a large turning radius must be maintained. Sudden braking or acceleration must be avoided. If driving with heavy equipment is unavoidable, the artificial turf must be covered in the area of the track to ensure sufficient weight distribution and to prevent overloading the surface. It is necessary to carefully select the material intended for covering the artificial turf to avoid damaging the fibers.

Furthermore, it is necessary to carefully select the material intended for covering the artificial turf to avoid damaging the fibers. In freely accessible facilities or public areas, construction measures must prevent the entry of vehicles and uncontrolled use of the sports field. Activities that are not part of the sports use are prohibited on the artificial turf area unless construction modifications are made, e.g. covering it. During such activities, the point load on the artificial turf system cannot be controlled and may damage it.

ATTENTION!

It is prohibited to handle open flames, smoke or set off fireworks around or on the lawn.

7. Instruction sheet



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