

Grass Reinforcement Mesh Installation Guide

Grassmats Grass Reinforcement Mesh - Installation & Pre & Post Maintenance Guidelines

To allow Grassmats Reinforcement mesh to perform to its optimum capabilities, having the following conditions in place before install will help contribute towards the mesh working effectively: -

- Existing strong, vibrant, and well-established grass
- The grass area to drain well
- The grass area to be flat and even
- The grass area has been regularly maintained including spring and autumn feeding

Pre-Installation Checklist

Is there full grass cover over the area to be installed?

If there is little or no grass the mesh will be unable to entangle with the grass and 'rest' on the grass root structure. Although the mesh by itself will improve the resistance to trafficking damage, the ability to reduce damage is greatly enhanced when the mesh has fully entangled with strong healthy grass. If the area is expected to be trafficked in the short term then it would be advisable to turf rather than seed as seeding can take a whole growing season to become strong enough for the grass reinforcement mesh to work.

Does the install area naturally drain well?

If the area to be installed upon easily becomes very soft and yielding to a depth of more than 25 to 50 millimetres after rainfall, then careful thought needs to be given to installing extra drainage. Also, perhaps alternative solutions should be looked at and considered.

Is the area flat?

If the ground slopes more than 5% (one in 20), please contact Grassmats for technical guidance

Is the ground even and free of ruts and abrupt raised areas?

Grass reinforcement mesh needs to lay flat and tight against the ground, so any unevenness needs to be filled in / rolled out. This is especially true of areas where livestock such as horses have used the area or are going to use the area.

Is there at least 200mm of topsoil under the grass?

The mesh is secured to the ground using 170mm U steel fixing pins. If there is a hard unyielding layer just below the surface like hardcore then this greatly hinders securing the mesh.

Is the ground able to receive a 170mm steel U fixing pin?

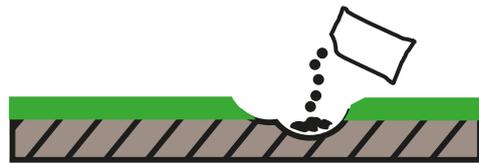
After long dry periods the ground can become too hard to apply the pins - especially with clay-based soils.

Preparation

1. The grass area needs to be relatively flat and no steeper than 1 in 20 fall is advisable.



2. The area needs to be generally even. Gentle undulations in the region are usually acceptable but abrupt ruts and raised areas will need filling in or levelling out and re-turfing. Laying turf rather than re-seeding is better as this will always allow the area to be used quicker as seeding can take a whole growing season to develop the necessary grass structure.



3. The grassed area needs to drain reasonably well. Badly draining land at times of heavy rainfall may allow the ground to become soft and pliable underneath the reinforcement mesh at times of heavy rainfall. This may lead to the mesh to be compromised and not perform as expected.

4. There needs to be strong, robust, well-established grass in a consolidated soil. This is needed for two main reasons. Firstly, to provide a good, secure hold for the metal fixing pins. Secondly, to add strength to the mesh to allow the desired trafficking.

5. Prior to installation, the grass needs to be cut short. This will help to make sure that the plastic mesh lays tight against the ground, to allow the swiftest entanglement of grass roots and mesh.

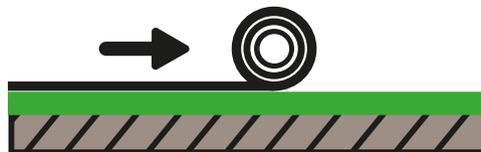
Installation Guidelines

1. Just before installation the grass would need to be cut to allow the mesh to 'sit' tight on the surface.

For installation the tools usually required are thick gloves, steel club hammer and knee pads. If cutting is required the following are often used:- rip saw or circular saw and branch loopers. Please avoid Stanley knives and tin snips.

It is always best to have a least two to three people doing the installation as the rolls – especially the bigger rolls – can become very heavy and cumbersome to move when opened

When located on site cut the securing bands on the rolls and allow the roll to unwrap. At this point it would be best to turn the roll upside down to avoid the roll curling back up.

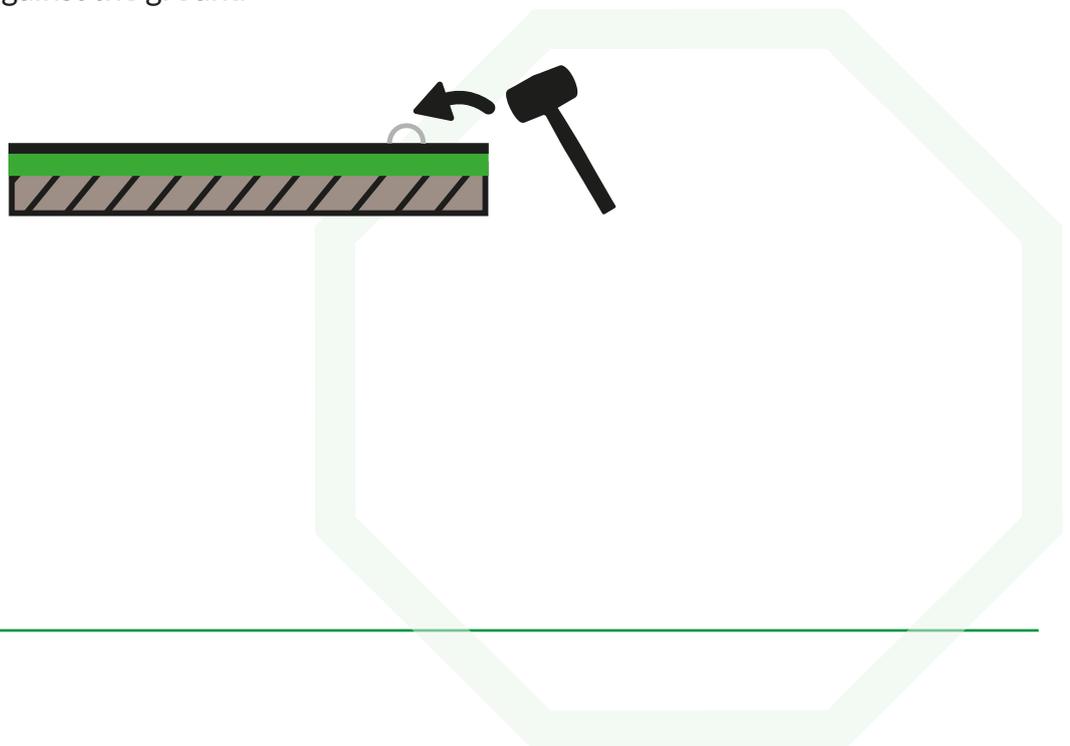


2. Lightly pin at the end of the roll and allow the roll to relax for a up to an hour. If many rolls are being laid it would be best to pin out as many rolls as possible to allow them to relax in position

Pin the rolls securely to the ground using the metal U pins. From experience but site conditions may vary, it is best too pin every 300 to 400 millimetres on the edges with a centre pinning every 400 to 600 millimetres.

If more than one roll is being installed, please butt the rolls together - do not overlap. Pin across the rolls joining them together.

After installation is completed, it is best to keep some pins back to allow extra pinning if required to make sure the mesh is tight against the ground



Post-Installation Guidelines

For the mesh to achieve its optimum strength and robustness it needs to entangle fully with the grass. This is generally achieved by cutting the grass often and up to five to seven times before use, allowing the cuttings to fall back into the mesh. This will encourage the grass to become interwoven with the mesh. The mesh has been specially designed to promote this.

As long there is existing grass the mesh can be used without full entanglement but allowances must be made for amount of use as the mesh will not be up to its full working strength. It would be best to contact Grassmats technical for guidance.

It is best to keep regularly cutting the grass. Do not allow the grass to growth / stalk through the mesh and not entangle.

If the mesh is installed in warm weather and is open to the sun there is likely to be expansion of the mesh and a slight rippling will occur. When the air temperature cools this should virtually disappear. As the grass grows into the mesh and entangles with it this expansion issue will stop.

The mesh has been designed to allow traffic up to the weight of seven and a half tonnes to use it. It will not work with HGV vehicles or forklifts they will shear / break the mesh.

It is best any car movement of the mesh is limited to 5 mph. The main cause of unnecessary attritional damage is caused by excess speed on the wetter cooler days.

The reinforcement mesh will work to its optimum abilities when the grass is strong and healthy. It is strongly advised the grass is fertilised in the spring and autumn to maintain a lively growth and tough root structure.

