

# GrassProtecta®

## SPECIFICATION & INSTALLATION GUIDANCE



Boddingtons' GrassProtecta® is a tough, flexible and long lasting extruded polyethylene mesh. Available in two grades (Standard & Heavy) and supplied in two roll sizes (2m x 20m & 1m x 10m). GrassProtecta® can be effectively employed onto stable ground by simply unrolling and pinning adjacent and successive lengths using metal U-pins. After a suitable period of time the grass will grow through the mesh and reach a convenient height to be mown. The area quickly adopts a natural appearance with the grass plants intertwined with the mesh to provide permanent protection against wear. Installation is best carried out during the growing season to allow a strong interlock between the mesh and the grass sward, although GrassProtecta® can be installed throughout the year as appropriate.

### INSTALLATION METHODS

#### A. EXISTING GRASSED AREA

1. The surface must be reasonably flat, level, firm and free-draining enough to sustain the proposed traffic. Fill shallow depressions with free-draining sandy soil. Level and consolidate. Apply seed before or after mesh installation as preferred. Alternatively, lift turf locally, fill the low area with sandy soil, consolidate and replace turf to level.
2. Prior to permanent fixing of the mesh, it is advisable to unroll it and pin loosely at each corner to allow the mesh to relax and regain its natural flatness for a minimum of 1 hour prior to permanent fixing. Ambient temperature variations will influence the time period required for the mesh to relax and lay flat.
3. Fixing Pins (50 per bag) – For the most effective pinning, installations of 1 single roll will require a minimum of 4 bags (200 pins). Installations of 2 or more rolls will require a minimum of 3 bags (150 pins) per roll plus 1 extra bag more than the total roll quantity ordered.
4. All outer edges of mesh will require pins at 300 - 350mm maximum centres. Pins in the middle of the roll will be in 3 equally off-set rows in a chevron type pattern at 500mm apart (roll width) and at maximum 750mm centres (roll length). On multi-roll installations the edge pins will overlap and fix 2 adjacent butted edges. Pins should be inserted parallel to the mesh and flush within the structure to avoid exposure at the surface. Try to avoid inserting pins across and above the top strand of mesh. Refer to diagram for suggested pinning layout.
5. Position the mesh where required on the prepared surface. Starting from a corner of the roll and maintaining the mesh as taut and straight as possible at all times, fix the first edge (length) and then go back to the start and fix one end of the roll using the metal U-Pins (300 - 350mm centres). Do not fix both ends or both edges at this stage. Always work in the same direction along the mesh length to keep the mesh taut and to avoid ripples.
6. Working progressively along and across the mesh and away from the first pinned corner, insert 3 more rows of pins down the centre of the roll in the chevron type layout as described (3 rows at 500mm apart & at 750mm centres down the length). Continue this until all pins are in place except for the leading edge and the roll end.
7. For 1 roll installations, fix the leading edge (length) and the final roll end (300 - 350mm centres) to complete the operation.
8. For multi-roll installations, position the next roll for fixing. Adjacent rolls must be butt jointed and not overlapped. 1 row of pins will secure the two adjacent roll edges and/or ends. Continue across the site using this method until fully installed. Additional pins may be required as determined by specific site and weather conditions and to secure any bridged or raised/tented sections of mesh where evident. Installation in cold weather conditions may benefit from fixing adjacent rolls approximately 1cm apart to allow for thermal expansion in hot weather.
9. When you are satisfied that the mesh is laid flat and fixed securely, a brushing of free-draining sandy topsoil may assist in levelling any minor low spots, but is not essential. It is not advisable to completely fill or cover the mesh with soil. A dressing of seasonal fertiliser and any appropriate irrigation will encourage new grass growth to be made more rapidly through the mesh.
10. Best results are obtained by restricting trafficking until after the grass has thoroughly established through the mesh and the grass has been cut several times. This process will normally take 6 - 8 weeks during the growing season and early use will affect grass establishment. The area can be trafficked immediately if necessary, but exposed mesh may present reduced traction in wet or frosty conditions and advisory signage to this effect may be required.
11. Mowing can be carried out as normal, but blades should be set higher for the first 3 - 4 cuts to enable the grass to grow through and fully intertwine with the structure.
12. After installation and establishment, warm weather conditions may cause some localised raised 'tented' mesh areas to become apparent through expansion. These localised raised areas can be further secured by placing additional U-pins as required.

#### B. NEWLY SOWN LANDSCAPED AREAS

1. A seeded surface will require significantly longer for the grass to establish through the GrassProtecta® mesh. GrassProtecta® can be installed directly onto newly installed turf.
2. The site must be clear of debris, reasonably flat and level, well consolidated and free-draining enough to enable it to sustain the proposed traffic.
3. Having prepared the seedbed, grass seed can be sown before or after the mesh installation. Turfed areas are prepared and installed as normal.
4. Continue with points 2 - 12 above.

### APPLICATIONS

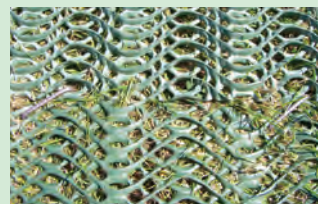
- Vehicle access routes
- Overflow car parks
- Pedestrian and disabled access
- Golf buggy paths
- Walkways
- Caravan/boat access
- Light aircraft taxiways/parking
- Slope stabilisation and occasional HGV access (determined by ground conditions)



Mesh unrolled



Secured with U-pins



Mesh 'Butt' joined using U-pins



Mesh after installation



After installation - grass grows through quickly

# GrassProtecta®

## GRASSPROTECTA® PRODUCT SPECIFICATIONS\*

| PHYSICAL CHARACTERISTICS:    |             | STANDARD 1.2kg/m <sup>2</sup> |       | HEAVY 2kg/m <sup>2</sup>     |      |
|------------------------------|-------------|-------------------------------|-------|------------------------------|------|
| Structure                    |             | Oscillated                    |       | Oscillated                   |      |
| Polymer                      |             | HDPE (with recycled content)  |       | HDPE (with recycled content) |      |
| Colour                       |             | Green                         |       | Green                        |      |
| UV Stabilised                |             | Yes                           |       | Yes                          |      |
| NOMINAL DIMENSIONS:          |             |                               |       |                              |      |
| Roll Width                   |             | 2m                            | 1m    | 2m                           | 1m   |
| Roll Length                  |             | 20m                           | 10m   | 20m                          | 10m  |
| Roll Weight                  |             | 48kg                          | 12kg  | 80kg                         | 20kg |
| Weight per linear metre      |             | 2.4kg                         | 1.2kg | 4kg                          | 2kg  |
| Weight per square metre      |             | 1.2kg/m <sup>2</sup>          |       | 2kg/m <sup>2</sup>           |      |
| Thickness                    |             | 11mm                          |       | 14mm                         |      |
| Mesh Aperture (Diamond:Oval) |             | 3:1 ratio                     |       | 3:1 ratio                    |      |
| TECHNICAL CHARACTERISTICS:   |             |                               |       |                              |      |
| Measurement                  | Method      | Results                       |       | Results                      |      |
| Tensile strength (MD)        | ISO 10319   | 12kN/m                        |       | 16kN/m                       |      |
| Yield point elongation (MD)  |             | 30%                           |       | 35%                          |      |
| Residual thickness @ 500 kPa | ASTM D1621  | 45%                           |       | 60%                          |      |
| Slip risk PTV value          | BS7976: 1-3 | >40 (low slip)                |       | >40 (low slip)               |      |

## GRASSPROTECTA® PINS & PEGS

| Product  | U-Pin                   | Pegs - Black | Pegs - Yellow | Washers - Yellow |
|----------|-------------------------|--------------|---------------|------------------|
| Material | Steel                   | Plastic      | Plastic       | Plastic          |
| Size     | 170mm x 70mm x 6mm dia. | 140mm long   | 140mm long    | 58mm diameter    |
| Outer    | 50 pack                 | 100 pack     | 100 pack      | 100 pack         |



Metal U-Pins

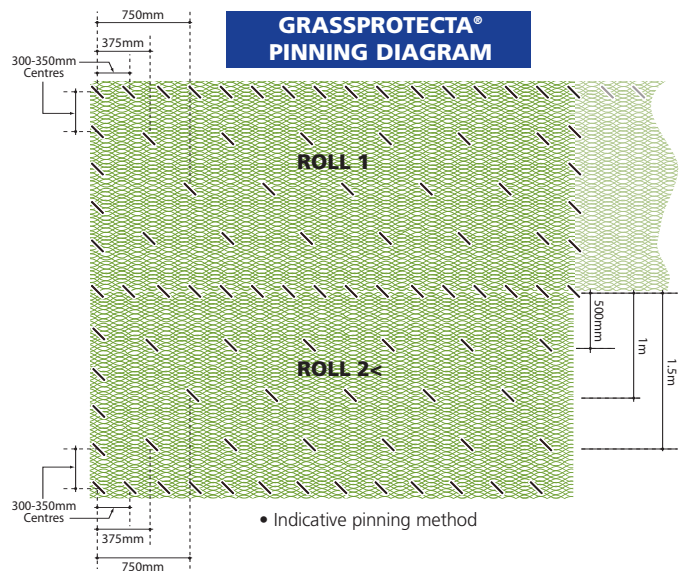


Plastic pegs and parking bay markers / washers

- Suitability and selection of appropriate GrassProtecta® pegs will be at the clients discretion according to the site soil type, condition and depth. The use of metal U-Pins is strongly advised for securing GrassProtecta®.
- Plastic Pins and washers may be appropriate for delineating parking bays if ground conditions are suitable for installation.

### Notes:

- Where weak and / or waterlogged ground conditions exist, these must be improved prior to placement of GrassProtecta®. For occasional use by HGV's, a sub-base may be required.
- Advice on suitability for specific applications is available from Boddingtons Technical advisors.
- GrassProtecta® can become slippery when wet (before the grass has had a chance to grow through). Boddingtons strongly recommend that all newly installed mesh is cordoned off and signage erected to advise of any potential slip hazards.
- Expansion & Contraction in hot climates: For installations where there may be broad +/- day to night temperature variations or where installations are carried out in Spring and Summer, it is recommended that a 15mm gap is left between adjacent rolls and that rolls are pinned individually.



\*Manufacturing tolerances (maximum +/-) to length and width apply to the final dimensions of this product. Length +50cm. Width +5cm/-2cm. Specification Data is obtained from routine production sampling, therefore figures are nominal and may not necessarily be representative of the product supplied but will be within manufacturing tolerances.

Please note that the information above is given as a guide only. Boddingtons cannot be liable for damage caused by incorrect installation of this product. Final determination of the suitability of any information or material for the use contemplated and the manner of its use is the sole responsibility of the user and the user must assume all risk and responsibility in connection therewith. Copyright © Boddingtons Ltd. All rights reserved



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