## Advanced Turf® System (ATS)



## Structural design guidance for walkway access

The Advanced Turf System (ATS) is suitable for a wide range of applications where a reinforced grass surface is required. Typical applications for walkway access include pedestrian event areas, disabled access, light vehicle access, verges, roof gardens, and sculptured slopes. This document is intended to be a summary presenting typical solutions. Contact ABG for detailed site specific advice.

## Turf Paving edge restraint Various options Subgrade Reinforced rootzone with local soil Reinforced rootzone ATS400/B mesh elements blended with 60:40 sand:soil rootzone

## **Technical Specification**

System	Advanced Turf® System (ATS)
Colour	Brown
Mesh material	Polypropylene Homopolymer
Mesh density	$905 - 908 \text{ kg/m}^3$
Mesh element dimensions	100mm x 50mm
Mesh aperture pitch	10mm + 2mm - 1mm
Mesh tensile strength	3.3kN/m (longitudinal and transverse)
Mesh junction strength	≥ 50% of the strand strength
Mesh flexural recovery	High flexural recovery ≥ 95%
Mesh/rootzone blend ratio	5.4kg mesh elements / 1m3 of rootzone
Permissible load	Cars & Light Vans < 3.5 tonne gross vehicle weight
Chemical resistance	Excellent
UV stability	High resistance to colour & strength degradation
Infiltration capacity	High infiltration rate up to 150mm/hr

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# **Sechnical Note**

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### **NOTES**

- A. For advice on the installation and maintenance of ATS, please refer to the ABG Advanced Turf® Installation Guide.
- B. Advice on subgrade CBR% strengths, ground conditions, and construction over weak ground is available from ABG. On very weak ground a sub-base may be required and specific advice is F. available from ABG.
- C. Typical paving edge restraint solutions include concrete, timber, railway sleepers, steel, heavy-duty plastic, or by simply leaving a 45° battered edge to the compacted ATS rootzone layer where it will abut an adjacent grassed area.
- D. Reinforced rootzone thickness of 100mm is suitable for most G. walkway locations, whilst 150mm provides improved structural strength, drainage and grass quality for areas subjected to H. intensive use, high rainfall, or where subgrade soil is poor quality.
- E. For applications where Advanced Turf® is providing surface water source control for SuDS (Sustainable Drainage System) via infiltration, drainage may be modified or omitted as determined by subgrade soil & site criteria. Where infiltration into the I. subgrade is not possible, typical drainage details are 100mm diameter perforated pipe drain laid at minimum gradient 1:100, J. bedded on gravel in trench backfilled with DTp Type A drainage stone covered or wrapped with a geotextile fabric (ABG Terrex K. NW9), and leading to a suitable outfall or soakaway. Drains placed down centres or one edge of access routes up to 5m wide. Wider

areas may require additional drains at 5m-10m centres. Fildrain drainage geocomposite may be considered as a means of providing linear drainage channels. Contact ABG Ltd. to discuss further.

- Fertiliser will help to establish and maintain a healthy grass sward which is capable of sustaining walkway access traffic. Local and seasonal weather conditions will determine the degree of irrigation required. Inadequate irrigation during the grass establishment period may result in drought conditions and a failure to establish uniform quality grass cover.
- The maximum advised gradient for vehicle and disabled access is 8% (1:12) 5°.
- When designed in accordance with the recommendations, Advanced Turf complies with BS8300:2009: "Design of buildings and their approaches to meet the needs of disabled people" Code of Practice (ISBN 9780 580 57419) & Building Regulations Document 'M' Section 6.
- All stated dimensions & weights are nominal and in accordance with manufacturing +/- tolerances.
- The recommendations in this document are only suitable for use with ABG products.
- Advanced Turf® is a registered trademark of Schweitzer-Mauduit International (SWM).

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