Need a Geotextile or Weed Control Membrane?

- We've got it covered

PrinciPal
BUILDING PRODUCTS

Contents

Page	Subject
1	Contents
2	Introduction
3 - 4	Guide to the Correct Geotextile
5 - 6	Weedcheck Ultra
7 - 8	Weedcheck
9 - 10	Groundcheck
11 - 12	Groundcheck Extra
13 - 14	Stratacheck
15 - 16	Stratacheck Plus
17 - 18	FAQ'S

Introduction

Principal have a wealth of experience and knowledge in geotextiles and weed control membranes.

Our products are manufactured to the highest possible standards and it is important to us that you are able to select the right product from our extensive range, which will suit your particular application.

Why are there so many different types of geotextiles?

- Because each application needs a geotextile with specific characteristics and which performs a different function.

Weed Control Membrane

This membrane needs to shut out as much light as possible but with good porosity and longevity to ensure a continued barrier against weed growth from below. For total weed control, this membrane needs a very small hole size, less than 35 microns, a light transmittance of less than 5% and allow air and water to pass through. The membrane should control all rhizome weeds and most bulbs and corns from penetrating from underneath, whilst allowing air, water and nutrients to pass through.

Stabilising & Separation

Strength is the most important factor ensuring that subsidence does not occur at a later date. The membrane needs to have a CBR puncture resistance of minimum 950N up to 1500N, and a dynamic cone drop not greater than 40mm.

Drainage

The hole sizes are crucial in this membrane to continuing long term drainage and should be 100 - 150 microns. This will prevent clogging and silting allowing a natural land drain to develop. This type of membrane is the catalyst to develop a natural land drain.

Principal Guide to the Correct Geotextile For Your Application

These recommendations are only intended as a guide. Allowances have to be made both for soil & site conditions. Please contact us should you require any further advice, assistance or clarification.

✓ *Recommended*

✓ *Alternative*

	WEEDCHECK	WEEDCHECK ULTRA	GROUNDCHECK EXTRA	GROUNDCHECK	STRATACHECK	STRATACHECK PLUS
WEED CONTROL						
Aggregate Areas - Pedestrian		✓				
Flower & Shrub Beds	✓	✓				
Garden Paths Domestic		✓				
Rockeries		✓				
Scree Gardens - Commercial		✓				
Scree Gardens - Domestic	✓	✓				
Under Decking with a Mulch	✓	✓				
Vegetable Beds - Fruit Protection	✓	✓				
TURF & GRASS						
Under Turf - Butted no overlaps					✓	
Under Artificial Grass		✓			✓	
DRAINAGE						
Attenuation & Water Harvesting - Pedestrian					✓	
Attenuation & Water Harvesting - Vehicular						✓
Land Drains - Pedestrian					✓	
Land Drains - Vehicular						✓
Soakaway Crates - Pedestrian					✓	
Soakaway Crates - Vehicular						✓
SUD's Compliant Systems					✓	✓
Under Block Paviour Drives					✓	✓
Wrapping Drainage Pipe					✓	✓

	WEEDCHECK	WEEDCHECK ULTRA	GROUNDCHECK EXTRA	GROUNDCHECK	STRATACHECK	STRATACHECK PLUS
STABILISING /SEPARATION						
Aggregate Pathways - Pedestrian			✓	✓	✓	
Aggregate Driveways & Areas - Vehicular			✓	✓		✓
Cellular Confinement - Pedestrian			✓	✓	✓	
Cellular Confinement - Vehicular			✓	✓		✓
Garden Paths - Commercial			✓	✓		✓
Garden Paths - Domestic			✓	✓	✓	
Ground Grid - Pedestrian			✓	✓	✓	✓
Ground Grid - Vehicular			✓	✓		
Horse Manēge under Type 1			✓	✓	✓	
Horse Manēge under Top Dressing					✓	✓
Patios & Hard Standing Areas					✓	
Roads & Car Parking Areas			✓	✓		✓
Tree Root Protection - Vehicular			✓	✓		✓
OTHER APPLICATIONS						
Children's Safety Play Areas / Sand Pits		✓			✓	✓
Temporary Protection to Lawns etc. whilst construction work is active					✓	✓
Lining Plant Containers and Separating Compost with Crocks	✓	✓			✓	
Resin Bound Aggregates					✓	✓
Rubber Crumb Resin Surfaces					✓	✓
Sports Pitches / Tennis Courts					✓	✓
Temporary Paths & Roads			✓	✓	✓	✓
Fallow Areas / Tree Mats - Spats			✓	✓		
Materials Storage					✓	✓

WEEDCHECK ULTRA

A 70gsm Spunbond Weed Control Membrane

Benefits

- A high performance Weed Control Membrane which will stop Rhizome growth from penetrating from underneath.
- No need for chemicals when installing.
- Water and feed passes through to the soil below.
- Low maintenance gardening.
- Decorative aggregates will not be lost into soil.

Specification	*WEEDCHECK ULTRA*
Average mean or pore size	33µ
Light transmittance	<4.0%
Carbon black content	3.0%
Membrane weight	70gsm
Guaranteed life - when covered	25 years

Artificial Grass

Suitable Applications

- Aggregate Areas
- Pedestrian Scree Areas
- Flower Beds
- Under Decking with Mulch
- Shrub Beds
- Vegetable Beds
- Vegetable Protection
- Lining Plant Containers
- Between Crocks and Compost
- Under artificial grass

Planting out

Sizes Available

1.0m x 14m, 1.0m x 25m,
1.0m x 50m, 1.0m x 100m,
1.5m x 10m, 1.5m x 50m, 1.5m x 100m,
2.0m x 25m, 2.0m x 50m,
2.0m x 100m, 2.4m x 100m

WEEDCHECK ULTRA

A 70gsm Spunbond Weed Control Membrane

Installation Guide

1. For aggregate & paved areas simply strim all vegetation to ground level remove vegetation and ensure that there are no sharp objects which could penetrate the Weedcheck Ultra. Should bulbs be present they are best removed at this stage.

2. For garden areas prepare the soil removing any visible weeds and then add plant feed to the area.

3. Lay out the Weedcheck Ultra over the area and secure at the edges. Using a spade spit down 150mm vertically and tuck the Weedcheck Ultra into the vertical spit.

4. Should joins be necessary then the recommended overlap is 100mm. Pins can be used but best to use the mulch to keep in place. Use heavy stones temporarily whilst working.

5. Place your plants on top and arrange ready for planting.

6. Cut a cross, open up and remove soil. Water and place plant in the hole, firm in and replace the Weedcheck Ultra ensuring that there is no soil left on top of the membrane.

7. To ensure the cuts are covered just cut a collar from the Weedcheck Ultra with 1 slit and use to cover the cross cuts. Example of collar - see page 7.

8. Cover the bed with your preferred mulch approximately 40mm for aggregates or coconut mulch and 50/60mm for traditional bark mulch.

9. With Artificial Grass Weedcheck Ultra goes directly under the Artificial grass and on top of the compacted 10mm down or sand.

10. Ensure Weedcheck Ultra is covered with a mulch within 24 hours of laying.

WEEDCHECK

A 50gsm Spunbond Weed Control Membrane

Benefits

- An economical membrane which will prevent most rhizome growth from penetrating from below - for complete weed control please use Weedcheck Ultra
- No need for chemicals when installing
- Water and feed passes through to the soil below
- Low maintenance gardening
- Decorative aggregates will not be lost into soil

Under Decking

Suitable Applications

- Aggregate Areas
- Pedestrian Scree Areas
- Flower Beds
- Under Decking with Mulch
- Shrub Beds
- Vegetable Beds
- Vegetable Protection
- Lining Plant Containers
- Between Crocks and Compost

Scree Garden

Specification	WEEDCHECK
Average mean or pore size	43µ
Light transmittance	←8.0%
Carbon black content	3.0%
Membrane weight	50gsm
Guaranteed life - when covered	15 years

Sizes Available

1.0m x 14m, 1.0m x 20m
1.5m x 10m, 1.5m x 100m
2.0m x 10m, 2.0m x 20m,
2.0m x 25m, 2.0m x 50m

WEEDCHECK

A 50gsm Spunbond Weed Control Membrane

Installation Guide

1. For aggregate areas simply strim all vegetation to ground level remove vegetation and ensure that there are no sharp objects which could penetrate the Weedcheck. Should bulbs be present they are best removed at this stage.
2. For garden areas prepare the soil removing any visible weeds and then add plant feed to the area.
3. Lay out the Weedcheck over the area and secure at the edges. Using a spade spit down 150mm vertically and tuck the weedcheck into the vertical spit.
4. Should joins be necessary then the recommended overlap is 100mm. Pins can be used but best to use the mulch to keep in place. Use heavy stones temporarily whilst working.
5. Place your plants on top and arrange ready for planting.
6. Cut a cross, open up and remove soil. Water and place plant in the hole, firm in and replace the Weedcheck ensuring that there is no soil left on top of the membrane.
7. To ensure the cuts are covered just cut a collar with 1 slit and use to cover the cross cuts - see photo opposite.
8. Cover the bed with your preferred mulch approximately 40mm for aggregates or coconut mulch and 50/60mm for traditional bark mulch.
9. Ensure that Weedcheck is covered with a mulch within 24 hours of laying.

GROUNDCHECK

80gsm Woven Geotextile

Benefits

- Prevents expensive aggregates from being lost into the sub soil
- Suitable for pedestrian & Vehicle applications
- Contributes at low maintenance gardening
- Air & Liquid permeable
- Extra Strong Tapes

Under aggregate driveway

Suitable Applications

- Aggregate Drives
- Garden paths
- Horse manēge and root protection
- Under cellular confinement systems
- Under Type 1 for stability for: block paved drives, artificial grass, and roads

Under aggregate driveway

EN 13249, EN 13250, EN 13251, EN 13253 EN 13254, EN 13255 EN 13257, EN 13252, EN13265

Sizes Available

1.0m x 15m, 1.0m x 25m, 1.0m x 50m, 1.0m x 100m, 1.5m x 15m, 2.0m x 10m, 2.0m x 25m, 2.0m x 50m, 2.0m x 100m, 3.0m x 100m, 4.0m x 12.5m, 4.0m x 100m

GROUNDCHECK

80gsm Woven Geotextile

Installation Guide

Groundcheck is specifically designed for Stabilisation and Separation Applications.

1. Excavate to the appropriate depth for your application, compact the sub soil / substrate.
2. Lay the Groundcheck overlapping 250mm at joins and secure with polyprop barbed pegs.
3. Carefully cover with Type 1 or similar working from the Type 1 and not on the Groundcheck.
4. Level and compact using a vibrating plate or roller.
5. Groundcheck, because of the hole sizes, cannot be recommended for weed control but will suppress some weeds although rhizomes, bulbs and corns may penetrate.

Specification	GROUNDCHECK
Tensile strength - MD / CD	14.0kN/m (-3.0kN/m) / 11.0kN/m (-3.0kN/m)
Elongation - Warp / Weft	25% (-10%) / 25% (-10%)
Dynamic Cone Drop	16mm (+4mm)
Static Puncture Resist	1375N (-175N)
Average Mean Pore Size	NPD
Water Permeability	4 lt/m²s (-1 lt/m²s)
Dangerous Substances	Less than required by national regulations within EU member states
Membrane Weight	80gsm

GROUNDCHECK EXTRA

A 75gsm Woven Geotextile

Benefits

- Decorative aggregates will not be lost into sub base or sub strate.
- Prevents rutting and subsidence in a block paviour drive.
- Under decking will save the cost of mulching.
- The strongest type of Geotextile on a weight for weight basis.

Under Domestic Patio Construction

Suitable Applications

- Aggregate Drives
- Scree Areas Commercial
- Car Parks & Roads
- Block Paviour Drives
- Horse Manēges - Under type 1
- Under Decking
- Under Domestic Patios
- Under Ground Grid
- Under Cellular Confinement
- Not designed to be used as a Weed Control Membrane

Strong enough to use under a sit on vibrating roller

Intended Uses - R + F + S:
EN 13249, EN 13250, EN 13251, EN 13253, EN 13254, EN 13255, EN 13257

Intended Uses - F + S :
EN 13252

Intended Uses - R + F :
EN 13265

Sizes Available

1m x 12m, 1m x 25m, 1m x 50m, 1m x 100m, 1.5m x 15m, 1.5m x 50m, 2m x 10m, 2m x 25m, 2m x 50m, 2m x 100m, 3m x 100m, 4.5m x 11m, 4.5m x 100m

GROUNDCHECK EXTRA

A 75gsm Woven Geotextile

Installation Guide

Groundcheck Extra is specifically designed for Stabilisation and Separation Applications.

1. Excavate to the appropriate depth for your application, compact the sub soil / substrate.
2. Lay the Groundcheck Extra overlapping 250mm at joins and secure with polyprop barbed pegs.
3. Carefully cover with Type 1 or similar working from the Type 1 and not on the Groundcheck Extra.
4. Level and compact using a vibrating plate or roller.
5. Groundcheck Extra, because of the hole sizes, cannot be recommended for weed control but will suppress some weeds although rhizomes, bulbs and corns may penetrate.

Specification	GROUNDCHECK EXTRA
Tensile strength - MD / CD	18.0kN/m (-4.0kN/m) / 10.0kN.m (-4.0kN/m)
Elongation - Warp / Weft	25% (-10%) / 25% (-10%)
Dynamic Cone Drop	19mm (+4mm)
Static Puncture Resist	1500N (-150N)
Average Mean Pore Size	300µm (±75µm)
Water Permeability	16 lt/m²s (-1 lt/m²s)
Dangerous Substances	Less than required by national regulations within EU member states
Membrane Weight	75gsm

STRATACHECK

Needle Punched Nonwoven Geotextile

Benefits

- Decorative aggregates will not be lost into soil.
- Catalyst to build up a natural land drain.
- Easy material to work with.
- The only type of geotextile recommended for all drainage applications

SUDS Compliant

EN 13249 EN 13250 EN 13251 EN 13252 EN 13253 EN 13254 EN 13255 EN 13255 EN 13256 EN 13256 EN 13257 EN 13265

Sizes Available

1.0m x 10m, 2.0m x 25m, 2.0m x 50m, 4.0m x 11.25m, 4.5m x 10m, 4.5m x 100m

Directly under turf ensure that Stratacheck joins are butted and not overlapped.

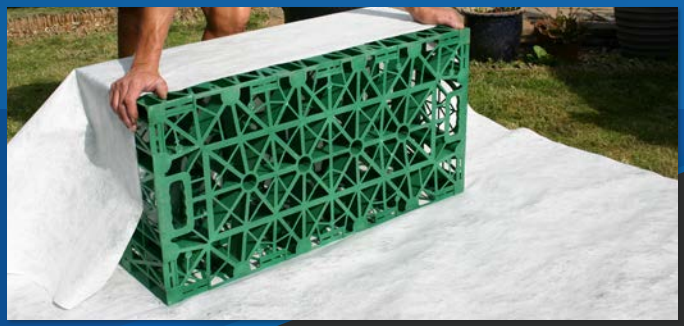
Suitable Applications

- All Drainage Applications
- Directly under turf
- Wrapping Soakaway Crates
- Block Paviour Drives
- Horse Manēges - Under Dressing
- Paved Drives & Patios
- Children's Play Areas
- Under Ground Grid
- Under Cellular Confinement

Under horse manēge

STRATACHECK

Needle Punched Nonwoven Geotextile



Installation Guide

1. Stratacheck has been specifically designed as a drainage membrane where it has the ability to form a natural land drain.
2. If being used under road construction, then there must be a minimum of 150mm of compacted type 1 to avoid the hot tar from damaging Stratacheck.
3. Stratacheck is strong enough to withstand a Light vibrating plate, should a heavy vibrating plate be required then use Stratacheck Plus or Groundcheck Extra
4. Always ensure that when constructing any sort of drainage application that only very clean aggregates are used and that larger aggregate pieces allow faster water flow.
5. Ensure that Stratacheck is covered within 24 hours of laying.

Specification	STRATACHECK
Tensile Strength - MD / CD	6.0 / 6.0 kN/m
Elongation - Warp / Weft	45% / 45%
Dynamic Cone Drop	40mm
Static Puncture Resist	900N
Average Mean Pore Size	120µ
Porosity l/m²/s	110
Membrane Weight	90gsm

STRATACHECK PLUS

Needle Punched Nonwoven Geotextile

Benefits

- Decorative aggregates will not be lost into soil.
- Catalyst to build up a natural land drain.
- Easy material to work with.
- The only type of geotextile recommended for all drainage applications

Used in conjunction with Groundgrid

Suitable Applications

- All Drainage Applications
- Directly under turf
- Wrapping Soakaway Crates
- Block Paviour Drives
- Horse Manēges
- Paved Drives & Patios
- Children's Play Areas
- Under Ground Grid
- Under Cellular Confinement
- Temporary protection
- Materials storage

Temporary Protection

SUDS Compliant

EN 13249 EN 13250
EN 13251 EN 13252
EN 13253 EN 13254
EN 13255 EN 13255
EN 13256 EN 13256
EN 13257 EN 13265

Sizes Available

1.0m x 10m, 2.0m x 25m, 2.0m x 50m, 4.0m x 11.25m, 4.5m x 10m, 4.5m x 100m

STRATACHECK PLUS

Needle Punched Nonwoven Geotextile

Installation Guide

1. Stratacheck plus has been specifically designed as a drainage membrane where it has the ability to form a natural land drain.
2. If being used under road construction , then there must be a minimum of 150mm of compacted type 1 to avoid the hot tar damaging Stratacheck Plus.
3. Stratacheck Plus is strong enough to withstand a heavy vibrating plate, should a sit-on vibrating roller be required then use Stratacheck Supreme or Groundcheck Extra.
4. Always ensure that when constructing any sort of drainage application that only very clean aggregates are used and that larger aggregate pieces allow faster water flow.
5. Ensure Stratacheck Plus is covered with a mulch within 24 hours of laying.

Specification	*STRATACHECK PLUS*
Tensile Strength - MD / CD	8.0 / 8.0 kN/m
Elongation - Warp / Weft	45% / 55%
Dynamic Cone Drop	34mm
Static Puncture Resist	1250N
Average Mean Pore Size	110µ
Porosity l/m²/s	100
Membrane Weight	105gsm

F.A.Q'S

WEEDCHECK ULTRA

Q: Is there a right way up to lay Weedcheck Ultra?
A: No , it does not matter which way up it is laid.

Q: How long will Weedcheck Ultra last?
A: If being protected by a Mulch about 25 years.

Q: Will Weedcheck Ultra prevent all weed growth?
A: Weedcheck Ultra is designed to control all Rhizome weeds, those which develop in the soil and are the most difficult to control. These are weeds such as Mare's Tail, Japanese Knotweed, Couch Grass, Bermuda Grass, Ground Elder and in addition most bulbs and corns.

Q: What is Surface Weeding?
A: These are either Annual or Perennial weeds which arrive in seed either by wind or by birds. They will germinate and try to push their roots through the Weedcheck Ultra. They should be removed as soon as they are seen to avoid damaging the membrane. Example of these would be chick weed and bind weed which are extremely aggressive once active, but would have developed on top of the membrane and not penetrated from underneath.

Roots developed on top of the Membrane. This membrane has not failed. Surface Weeds needs to be controlled as soon as they develop to prevent them growing through the membrane.

Clean shoots through the membrane with no visible root growth, as in the picture above. This is an example of how many woven membranes may not prevent all weed growth from underneath because of the larger hole size.

F.A.Q'S

Q: Can I feed my plants through Weedcheck Ultra?
A: Yes of course liquid feed is best but solid feed will break down and wash through

Q: What type of Mulch is recommended?
A: Clean aggregates, bark chippings and cocoa shell will protect your Weedcheck Ultra. It is not advisable to put any soil on top of Weedcheck Ultra as a mulch.

Q: Can I use Weedcheck Ultra without a Mulch?
A: Weedcheck Ultra is designed to be covered by a mulch.

Q: Can I use Herbicides with Weedcheck Ultra?
A: No problem whatsoever herbicides will not affect Weedcheck Ultra in either its performance or longevity

Q: Can Weedcheck Ultra be used under vehicles?
A: No, Weedcheck Ultra is designed only for pedestrian use.

GROUNDCHECK EXTRA

Q: I see some weeds growing in Groundcheck Extra topped areas - how is this possible?
A: We do not recommended Groundcheck Extra for weed control as the hole sizes in the membrane will allow certain rhizome weeds, bulbs and corns to come through. We recommend the use of Weedcheck Ultra for total weed control.

Q: Would you recommend Groundcheck Extra when constructing a land drain?
A: We do not recommend Groundcheck Extra for any drainage applications. For drainage use Stratacheck.

Q: Can it be laid any side up?
A: Yes Groundcheck functions whichever way it is laid.

Q: How long will it last?
A: If covered with a mulch and not exposed to sunlight or frost for around 30 years

STRATACHECK PLUS

Q: I want to put some turf directly onto imported soil?
A: Imported soil, no matter what they say, is likely to contain an assortment of weeds. Tamp and level the soil and lay down Stratacheck, do not overlap, butt the edges like wallpaper. Lay the turf on top and the majority of weeds contained in the imported soil will never be seen.

Q: Can i use Stratacheck Plus in my Horse Manēge?
A: It is the perfect geotextile for this purpose however, you must ensure that the horse's hoof does not come into contact with the Stratacheck. Ensure that the Stratacheck is always covered with 6" to 8" of top dressing.

Your local stockist.

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