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We're on the web!
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Southern Geosynthetics offers a full range of erosion control products including SuperGro®, SiltStop® silt fences, Silt Curtains and now Silt Sausage™.



Geotextile Soil Filters

One of the most important functions of geotextiles is filtration. Geotextiles allow water to pass through whilst retaining the soil, hence acting as a "soil filter". The basic design principles are :

- Largest pores in geotextile < larger particles of soil.
- Majority of pores > smaller particles of soil
- High porosity, high flow rate.

This will allow the geotextile to retain the larger soil particles whilst allowing the smaller soil particles to pass through the fabric without clogging it.

There are many formulae available for soil filter design. The simplest of these recommends:

$$EOS < (2 \text{ or } 3) d_{85}$$

Where

EOS = Equivalent Opening Size of geotextile, which is a measure of the largest pore size in the fabric

d_{85} = soil particle size in mm, for which 85% of the total soil is finer.

Also the permeability of the geotextile should be 10 times greater than the soil.

For critical applications laboratory testing is recommended, however in practice this is hardly ever carried out. One simple test that can be carried out in the field is the "jar test". Cut the top out of a screw-top jar, place a piece of geotextile over the top and screw on the top of the jar. Place a sample of the soil to be tested in the jar and fill with water. Turn the jar upside down and observe. If the water drains freely over the geotextile over a period of time then OK, however if the water stops draining then the geotextile has clogged and this is a problem. One possible solution is to use a sand filter over the geotextile. This is particularly recommended in roof-top garden construction.



Jar Test



Domain Apartments
South Yarra

Placement of Filter Sand
over geotextile

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SGS NEWS

NEW DUX® GEOTEXTILES



SGS is proud to introduce the new range of DUX® non-woven geotextiles.

Quality

DUX® is manufactured in ISO accredited facilities, using the newest machines and latest technology.

Tested

DUX® is NATA tested to all local Australian Standards. Call for full product data sheet

Value for money

At SGS we keep overheads low and pass the savings on to you. From a low \$0.60/sqm DUX® will save you real money. Get us to quote on your next project.

Availability

DUX® is available exclusively from SGS. DUX® is available in a wide range of grades and roll sizes to suit every application.

Advice

SGS has supplied many of the largest civil projects in Australia. With many years of experience, SGS can help you specify the right product.

Call Wayne Alexander on **0419 478 238** now.



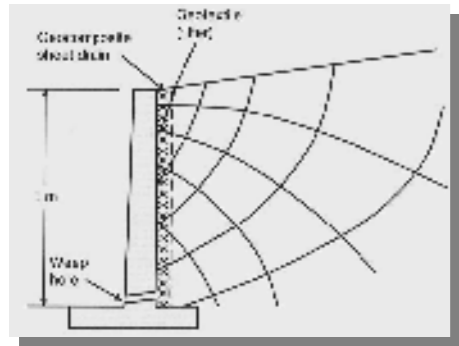
Application	19C	23C	30C	43C	48C	56C
Subsurface Drainage	→					
Roadway Stabilisation			→			
Erosion Control			→			
Railroad Stabilisation					→	
Liner Protection				→		
RTA Strength Class		A1	B1	C1		
"G" Rating		>1700		>3100	>3500	



DRAINAGE GEOCOMPOSITES

Geo-composite drainage products such as **Deckdrain 700S** are widely used in a range of applications including bridge abutments, retaining walls, tunnels and building basements. These products offer a number of advantages over traditional aggregate drainage layers, including ease of placement, more effective long-term drainage and cost savings. **Deckdrain 700S** is formed from a solid plastic sheet so it also provides an important waterproofing function.

The maximum applied lateral earth pressure at 5m depth is 50kPa. Using a factor of safety of 2, the typical design flow capacity of **Deckdrain 700S** under these conditions is more than 2 l/m/sec, which is many times greater than that required by authorities including Vicroads.



Typical lay-out of Retaining Wall with Deckdrain drainage



Deckdrain 700S
Craigieburn By-Pass
Bridge Abutments

VICROADS USING HATELIT® C

Dempster Street in Melbourne's Western suburbs has long been used as a short-cut for heavy B-double trucks. The pavement, which consists of 150mm thick concrete overlaid with an asphalt wearing course, was constructed many years ago and never designed for such heavy traffic. Hence the surface was in poor condition and extensively cracked. Vicroads engineers adopted use of Huesker's **Hatelit C** to help prevent reflective cracking. The surface was milled and a regulation layer of asphalt was placed followed by **Hatelit C** with a light 0.5l/sqm emulsion tack coat and a wearing course of 35mm of 3% rubberized asphalt.

Vicroads have adopted use of **Hatelit C** in a number of problem sites in the North West Metro contract this season.



Hatelit C at
Dempster St
Sunshine

STOP CRACKS DEAD



How much is regular crack sealing of asphalt surfaces costing you? Do the job right first time and do it once - incorporate **Hatelit C** in asphalt overlays of cracked pavements.

It's a big claim, but tests have proven that **Hatelit C** can extend the life of asphalt overlays 3 to 4 times and, under certain conditions, can stop reflective cracking in asphalt overlays.

For extra convenience **Hatelit C** is now available in 1.0m wide rolls, which are ideal for treating individual road cracks and construction joints. With a 50kN/m tensile strength **Hatelit C** is 10 times stronger than simple bitumen tape products so it is much more effective in stopping reflective cracking. Best of all the low supply price of around \$6.00 / LM makes this treatment very cost competitive.



NEW 1m wide
Hatelit C

MCG RESURFACING

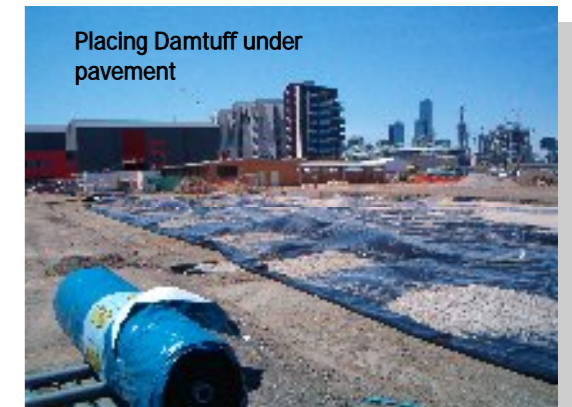
Geotextiles supplied by SGS have played a significant role in the MCG's recent re-surfacing. The massive surface works began following the 2004 AFL Grand Final and were completed by the Boxing Day Test. During November 2004 Delta Group used some 5,500sqm of ProPex 4545 non-woven geotextile in the lining of the drainage trenches. New **DUX 130C** non-woven geotextile was also used by H.G.Turf in the gravel drainage blanket.



ProPex 4545 in sub-surface drains

Damtuff liner at Docklands

Contractor J.A.Dodd recently installed 4,000sqm of Damtuff liner in an unusual application at Central Studios at the Docklands. Engineers Arup required a separation layer to prevent the movement of contaminants from the subgrade to the surface. Tough 0.4mm thick HDPE Damtuff was the ideal choice. Damtuff was placed over the subgrade prior to compaction of the pavement. The wide 8m rolls allow coverage of broad areas with minimal overlaps. Damtuff is ideal for a range of applications including waste or potable water containment.



Placing Damtuff under
pavement