

ProFab® PP Nonwoven Geotextiles

Polypropylene (PP) Needle Punched Nonwoven Geotextile

Abrasion resistant and chemically resistant geotextile



Product Information

ProFab® nonwoven geotextiles are manufactured from the extrusion of fibres which are then laid down on a manufacturing “bed” and then needle punched to entangle the fibres such that a dimensionally stable product is formed. Some additional thermal treatment is then applied to further improve the strength of the geotextile. Because of this manufacturing process nonwoven geotextiles are generally best used in applications of drainage, filtration and protection.

Global Synthetics offers the ProFab® polypropylene nonwoven geotextile in a range of weights, strengths and filtration characteristics for these engineering applications.

Applications

Typically two people can easily place ProFab® nonwoven geotextiles. ProFab® PP nonwoven geotextiles are highly resistant to chemicals and high pH environments making them suitable for use where the environment is of an unusually high or low pH level.

ProFab® PP nonwoven geotextiles are produced using a staple fibre production technique which provides excellent abrasion resistance to applications in marine environments or where hydraulic forces may be present. They have excellent resistance to puncturing making them ideal for use under revetments and rock protection layers.

ProFab® PP Nonwoven Geotextiles

Benefits

ProFab® geotextiles can enhance the performance of paved and unpaved roadways, parking lots, airports, loading docks, and storage areas through stabilisation of the subgrade. The geotextiles provide three important functions: separation, drainage, and reinforcement. The fabric serves as a permeable separation layer, preventing the aggregate and subgrade soils from intermixing while allowing the passage of water.

Features

- Drainage
- Filtration
- Protection
- Reinforcement
- Separation
- Large range to suit the required application
- Quality Certified
- Stocked in Australian warehouses
- Wide-width roll



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Product Data Sheet

Product Grade

Mechanical Properties	Test Method	Units	AS 401	AS 501	AS 601	AS 801	AS 1071	AS 1201	AS 1601
Trapezoidal Tear Strength	AS3706.3	N	280	350	380	460	640	750	950
CBR Burst Strength	AS3706.4	N	1400	2100	2200	3200	4400	5100	5900
Drop Cone H ₅₀	AS3706.5	mm	1100	1750	1990	2850	3500	4100	5600
G-Rating	Austrroads	-	1240	1920	2045	3020	3920	4575	5750
Grab Tensile Strength	AS3706.2	N	560	780	870	1200	1600	1950	2600

Hydraulic Properties									
Pore Size O ₉₅	AS 3706.7	microns	110	110	100	90	75	75	75
Nominal Flow Rate Q ₁₀₀	AS 3706.9	l/m ² /s	250	220	200	130	90	80	70
Permittivity	AS 3706.9	s ⁻¹	2.5	2.2	2.0	1.3	0.9	0.8	0.7

Physical Properties									
Mass	AS 3706.1	g/m ²	136	170	205	272	340	410	545
Standard Roll Size (other sizes available)	-	m	4 x 250	4 x 200	4 x 175	4 x 115	4 x 100	4 x 80	4 x 60
Nominal Roll Weight	-	kg	136	136	144	125	136	132	132

ProFab® geotextiles are manufactured to ISO 9001 quality assurance procedures. ProFab® geotextiles are made from polypropylene filaments that are highly durable and resistant to all natural occurring soil acids and alkalis. Polypropylene geotextiles are unaffected by bacteria and fungi. Properties of ProFab® geotextiles are typical values and correspond to average values derived from in house and independent laboratory testing.



About Us

Leaders in Geosynthetics

Global Synthetics is a 100% Australian-owned company, proud to offer a complete range of high-quality geosynthetic products backed by over 200 years of combined staff experience in the industry.

We have supplied products to some of the largest recent infrastructure works in Australia. Global Synthetics provides major benefits to any geotechnical engineering project with the right products and our technical expertise.

Global Synthetics products are used in the following applications:

- Pavement Stabilisation
- Ground Improvement
- Soil Reinforcement and Retaining Structures
- Water Management
- Drainage Systems & Hydraulic Works
- Landfills
- Coastal Erosion Structures

Get in Touch

AUSTRALIA

Website

globalsynthetics.com.au

Email

info@globalsynthetics.com.au

New South Wales

(02) 9725 4321

North Qld

(04) 5921 1692

Victoria/Tasmania

(03) 9791 1772

Queensland

(07) 3865 7000

South Australia

(08) 8384 8894

Western Australia

(08) 9459 4300

NEW ZEALAND

Website

globalsynthetics.co.nz

Email

info@globalsynthetics.co.nz

Auckland

0800 510 120

Christchurch

0800 510 120



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