

ProGrid® Polypropylene (PP) Geocomposite

Biaxial Strength Polypropylene Geocomposite

Biaxial soil reinforcement, stabilisation & separation geocomposite



Product Information

ProGrid® PP Reinforcement Geocomposite is formed by punching holes and stretching a stiff polypropylene sheet to form a geogrid with uniform openings which then has a polyester (PET) nonwoven geotextile heat bonded to one side.

ProGrid® PP Reinforcement Geocomposite provide stiff, high modulus reinforcement with the added benefit of separation and filtration. These features combine to allow the construction of roads and other amenities over weak, low bearing subgrades.

Applications

- Base, sub-base stabilisation and reinforcement
- Subgrade / soil stabilisation and reinforcement
- Raft reinforcement construction
- Road, railway and airport pavements
- Suitable for placement directly on subgrade due to separation benefits of the attached geotextile

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Benefits and Features

- Reinforcement/stabilisation, separation, filtration and drainage combined. Making installation easier and faster in a single operation to provide significant cost and time savings
- Increases lateral confinement of unbound & modified gravel material layers
- Improves soil/subgrade bearing capacity
- Helps control expansive soil/subgrade movements and associated longitudinal cracks in sealed road pavements
- Robust against installation damage, and chemical and biological attack



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Product Data Sheet

Product Grade

Geogrid Properties	Test Method	Units	20/20	30/30	40/40
Ultimate Tensile Strength (MD/CD)	ASTM D4595 or EN ISO 10319 / ASTM D6637	kN/m	20/20	30/30	40/40
Strain @ Ultimate Strength (MD/CD)	ASTM D4595 or EN ISO 10319 / ASTM D6637	%	13/13	13/13	13/13
Tensile Strength @ 2% Strain (MD/CD)	ASTM D4595 or EN ISO 10319 / ASTM D6637	kN/m	7/7	11/11	14/14
Tensile Strength @ 5% Strain (MD/CD)	ASTM D4595 or EN ISO 10319 / ASTM D6637	kN/m	14/14	22/22	28/28
Junction Efficiency (MD/CD)	ASTM D7737/D7737M-15	%	100/100	100/100	100/100
Aperture Size (MD/CD)		mm	38/43	34/41	37/43
Aperture Stability	ASTM D 7864	N-m/degree	0.50	0.75	0.98
Installation Damage Resistance	ASTM D5818 or ISO 10722	%	98	98	98
Radial Stiffness @ 0.5% strain	ASTM D4595 or EN ISO 10319 / ASTM D6637	kN/m	>350	>550	N/A
pH Resistance	EN 14030	-	4 to 9	4 to 9	4 to 9

Geotextile Properties	Test Method	Units	Geofirma® AS150A (Standard)	Geofirma® AS270C (Optional)
Grab Strength	-	N	≥ 780	≥ 1330
CBR Burst Strength	AS3706.4	kN	≥ 1.8	≥ 3.5
Trapezoidal Tear Strength	AS 3706.3	N	≥ 310	≥ 480
G-Rating	Austrroads	-	≥ 1750	≥ 2825
Characteristic Opening Size	AS 3706.7	µm	≤ 110	≤ 100
Permeability	AS 3706.9	l/m ² /s	≥ 210	≥ 150
Permittivity	AS 3706.9	s-1	≥ 2.1	≥ 1.5

Dimensions		Units	20/20	30/30	40/40
Roll width	-	m	3.9/5.9	3.9/5.9	3.9/5.9
Roll length	-	m	50	50	50



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

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