

# Geofirma® Heavy Weight Range of Nonwoven Geotextile

## Polyester Continuous Filament Cushioning

Suitable for a wide range of geotechnical applications



### Product Information

Geofirma® 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. Due to the manufacturing processes and that the geotextile product is highly needle, these non-woven geotextiles are generally best suited for a wide range of geotechnical applications involving drainage, filtration, protection and separation.

### Applications

To best assist you in determining which Geofirma® nonwoven geotextile grade is right for your application you may refer to our ‘Technical Guide on the Selection and Specification of Global Synthetics Geotextiles for Transportation Applications’. This guide indicates, based on long term experience, the candidate geotextile that has generally proven suitable for use in specific environments associated with factors such as temperature, chemical, soils type, damage and ground conditions.

Global Synthetics can assist with additional advice regarding Geofirma® grade selection to meet the cushioning and protection requirements of a containment liner comprised of a polyethylene (PE) liner and/or a Bentofix® Geosynthetic Clay Liner (GCL) to pass the common compression testing to ASTM D5514-18.

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## Benefits

The Geofirma® geotextile product range is quality certified in ISO accredited quality factories to the highest manufacturing standards for both local and international markets. The product is wrapped in a highly UV stable outer wrap such that the product may be left outside, onsite for later use provided the wrapper is not removed prior to deployment and use. For details on how to best store the Geofirma non geotextile contact your Global Synthetics representative.

The non woven geotextile is readily available in warehouses across Australia.

Global Synthetics offers the Geofirma® polyester continuous filament nonwoven geotextile in a range of weights, strengths and filtration characteristics for these engineering applications. Additionally, a number of roll widths and lengths are available across these grades to suit your application.

## Features

- Drainage
- Filtration
- Protection
- Cushioning
- Separation
- Quality Certified
- Stocked in Australian warehouses
- Wide-width roll



# Geofirma® Heavy Weight Range of Nonwoven Geotextiles

## Product Data Sheet

## Product Grade

| Mechanical Properties     | Test Method | Units | AS600 | AS700 | AS800 | AS900 | AS1000 | AS1100 | AS1200 |
|---------------------------|-------------|-------|-------|-------|-------|-------|--------|--------|--------|
| Trapezoidal Tear Strength | AS3706.3    | N     | 1080  | 1200  | 1380  | 1510  | 1630   | 1750   | 1875   |
| CBR Burst Strength        | AS3706.4    | kN    | 7.6   | 9.4   | 10.8  | 11.9  | 12.8   | 13.7   | 14.4   |
| Drop Cone H <sub>50</sub> | AS3706.5    | mm    | 5100  | 6900  | 8400  | 10550 | 11250  | 12300  | 13400  |
| G-Rating                  | Austrroads  | -     | 6225  | 8050  | 9525  | 11205 | 1200   | 12985  | 13980  |
| Grab Tensile Strength     | AS3706.2    | N     | 2980  | 3680  | 4240  | 4730  | 5260   | 6050   | 6480   |

| Hydraulic Properties | Test Method | Units               | AS600 | AS700 | AS800 | AS900 | AS1000 | AS1100 | AS1200 |
|----------------------|-------------|---------------------|-------|-------|-------|-------|--------|--------|--------|
| Pore Size (EOS)      | AS3706.7    | microns             | 75    | 75    | 70    | 65    | 60     | 55     | 50     |
| Nominal Flow Rate    | AS3706.9    | l/m <sup>2</sup> /s | 60    | 50    | 40    | 35    | 30     | 25     | 20     |
| Permittivity         | AS3706.9    | s-1                 | 0.6   | 0.5   | 0.4   | 0.35  | 0.3    | 0.25   | 0.2    |

| Physical Properties   | Test Method | Units | AS600 | AS700 | AS800 | AS900 | AS1000 | AS1100 | AS1200 |
|-----------------------|-------------|-------|-------|-------|-------|-------|--------|--------|--------|
| Standard Roll Size    | -           | m     | 6x60  | 6x50  | 6x40  | 6x35  | 6x30   | 6x30   | 6x25   |
| Typical Mass Per Roll | -           | kg    | 235   | 235   | 230   | 230   | 225    | 235    | 225    |

GEOFIRMA® geotextiles are manufactured under ISO 9001 quality assurance procedures. GEOFIRMA® are made from 100% virgin polyester polymer filaments that are highly durable and resistant to all naturally occurring soil acids and alkalis. Polyester geotextiles are unaffected by bacteria and fungi. Properties of GEOFIRMA® heavy range geotextiles are typical values and correspond to average values derived from in house and NATA accredited independent laboratory testing. If sustainable products are desired for non critical applications, please note that Geofirma Ecotextile can be offered as an alternative utilising recycled raw materials in their production. Please discuss with your Global Synthetics representative.



# 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

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