









# Why use geosynthetic engineering in sport and recreation infrastructure?

# Maximise playing hours

Geosynthetic engineering is the use of synthetic materials in civil engineering projects to achieve more cost effective, environmentally sound and safer construction outcomes. The design techniques bring specific benefits to sport and recreation projects, because geosynthetics help to maximise playing hours, increase facility use and reduce maintenance.

#### **BENEFITS**

#### ECONOMIC

The fundamental benefit of using geosynthetics in sport and recreation projects is to save construction and maintenance costs whilst achieving optimal usage.

#### TECHNICAL

Geosynthetics can remove the risk of variability in traditional engineering applications. The consistency of product provides excellent drainage, filtration and stabilisation which improve the long-term performance.

Geosynthetics are also utilised to maintain the integrity of the playing surface. This ensures optimum playing conditions during wet and dry seasons, leading to a more stable sport and recreation facility.

#### **ENVIRONMENTAL**

By reducing volumes of fill material required, there is less need to quarry and fewer machines needed to build infrastructure, reducing the carbon footprint. Drainage, water capture and surface run off can be better managed with geosynthetics. Water can be captured and stored for reuse or filtered to reduce sediment in stormwater. Bidim Green and Megaflo Green are made in Australia using a combination of Australian sourced recycled plastic materials – reducing waste to landfill.

#### **SPORT & RECREATION**

- Drainage, filtration and stabilisation to provide and maintain optimum field conditions
- $\cdot$  Capture and storage of water for irrigation and aesthetics
- Sports turf protection for outdoor event flooring systems
- Cost-effective solutions, reducing construction and maintenance costs
- Contribute to the health, social and economic benefits of sport and active recreation on the community

#### **ROADS & CAR PARKING**

- Optimise subgrade by providing stabilisation, separation, drainage and filtration functions
- Reduce ongoing maintenance costs
- Maximise the performance of on-site material or fill

#### RAIL

- Improve formation performance when constructed in poor ground conditions
- Reduce maintenance interruptions
- Stabilisation and drainage ensures minimal disruption to rail transport corridors

Ensures the integrity of the playing surface



# ENSURING OPTIMAL USE OF SPORT AND RECREATION FACILITIES ALL YEAR ROUND









The right geosynthetic solution to achieve the best outcome

Quick and easy installation with Megaflo Green

# Elevating communities through sport and recreation investments

Investment in the redevelopment or construction of new sport and active recreation infrastructure can improve amenity, transform underutilised sites and improve safety. The economic, health and social benefits of sport and active recreation are well recognised along with the association between improvements in the public realm and greater social outcomes.

#### **SPORT & RECREATION**

Our aim is to provide product solutions that maximise playing hours on natural and synthetic sport fields, racetracks and golf courses by creating excellent drainage, filtration and stabilisation solutions to help maintain optimum field conditions while reducing construction and maintenance costs for our customers.

- Drainage of natural turf sports fields ensures surface remains healthy, durable and playable
- Formation and drainage of synthetic sports fields to ensure predictable ball behaviour and maximises playing hours
- Protecting synthetic grass from subgrade moisture variations
- Increased drainage performance of Megaflo Green means that sports field surfaces are quickly returned to a playable condition after rain
- Quick and easy installation of Megaflo Green reduces construction time and costs
- Construction of bunkers with curves and steeper profiles without increased maintenance time and costs
- Bidim Green may be used as a separator to prevent bunker sand contamination from the subgrade below

- Bidim Green increases the lifespan of the sportsfield structure and reduces long-term maintenance by reducing the amount of fill required
- Bidim Green can be used in combination with hard surfacing to protect the turf in multi-purpose stadiums that are used to host concerts and other outdoor events.
- New road construction on soft ground and general unpaved roads
- Enduraseal Green can be used to waterproof and protect the subgrade

#### WATER

Geofabrics provides clients with cost effective options for potable and wastewater capture, storage, distribution and treatment through an innovative range of geosynthetic solutions.

- Water capture and retention options include trafficable underground stormwater harvesting systems which are easy to install and require minimal maintenance
- Water storage systems include dam lining for water hazards, irrigation and ornamental lakes
- Water storage with aesthetic appeal within the landscape

We can also assist in the design and supply of solutions for hydraulic structures including weirs, bridges and culverts.

## RECOMMENDED SPORT & RECREATION PRODUCTS

Megaflo Green socked slotted drain pipe Bunkermat sand retention and drainage matting Bidim Green non-woven geotextile Enduraseal Green geocomposite liner Triaxial geogrid

#### **RECOMMENDED WATER PRODUCTS**

Bidim Green non-woven geotextile Elcoseal geosynthetic clay liner Atlantis Flo-Vault stormwater storage system Megaflo Green socked slotted drain pipe



## TAILORED GEOSYNTHETIC SOLUTIONS WITH FULL TECHNICAL SUPPORT

#### **Unmatched expertise & support**

We draw from our years of experience in the Australasia resource sector to tailor design and provide geosynthetic solutions to best meet our client's performance and economic requirements.

Our superior technical support includes early stage testing to validate product selection, design and construction suggestions, certified designs if required; as well as installation systems to increase safety and productivity during installation.

#### **QUALITY & TRACEABILITY**

Geofabrics manufactures in compliance with the Australian and International Quality Standards and are ISO 9001 assured. We operate two QA Laboratories in Australia – Albury is NATA Accredited, Ormeau GRID is GAI LAP accredited and products are tested frequently and transparently.

#### **SUSTAINABILITY**

We work to protect, contain and secure the physical environment using smart geotextile and geosynthetic products. We help our clients mitigate environmental risk through world leading research and innovative product development.

Geofabrics is a proud member of the Infrastructure Sustainability Council (ISC).

#### SITE INSTALLATION

Geofabrics has the largest regional footprint of any geosynthetic supplier in Australasia. We have branches across Australia and New Zealand, so we can deliver product where and when you need it and provide local expertise to support your project.

Product installation is critical to project success, local representation can ensure correct procedures and minimal delays.

#### ASSOCIATION

Geofabrics is a member of the Sports and Play Industry Association (SAPIA), Australasia's peak body for sport and recreation construction. As a local manufacturer, we support SAPIA's commitment to quality, safety and best practice across the industry.







Geofabrics is the only geotextile manufacturer in Australia, with plants in Albury and Ormeau. We pride ourselves on providing unrivalled service to our customers. We can recommend the best geosynthetic product to achieve the objectives of your project and ensure it's available when you need it.

Over 40 years of experience allows our technical staff to provide practical support, based on local conditions. We are proud to have been recognised in the Australian Financial Review (AFR) Most Innovative Company list in 2020 with Bidim Green.

In 2021, Geofabrics ranked #1 in AFR's Most Innovative Company for Manufacturing and Consumer Goods for Sorbseal.

With a view to the future, we are committed to improving the sustainability of our business by reducing waste to landfill, lowering our carbon emissions and investing in our people.

### — FINANCIAL REVIEW BOSS — MOSTINNOVATIVE



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Sustainable solutions