



Hockey
turf systems



Greenfields
SPORTS TURF SYSTEMS





SAFETY • HEALTH •
100%
GREEN
FIELDS
ENVIRONMENT •



www.grays.com

THE THRILL OF THE GAME

Hockey is one of the fastest growing sports in the world, but the provision of quality playing surfaces is a vital part of ensuring the future growth of the sport and the satisfaction of players and spectators alike.

Sub-standard or under-prepared grass pitches not only affect the quality and enjoyment of the game; they act as a barrier to the development of skilled hockey players around the world – but we have the solution.



Development, production,
installation and
maintenance

MAKING A GREAT GAME BETTER

The evolution of the playing surface from grass to synthetic pitches has seen the game of hockey change dramatically. Players are able to control the ball more easily and the increasing ball speed has made hockey a faster and more exciting game. With a unique in-house laboratory and strong exclusive partnerships GreenFields® has played a key role in this continuous development spearheading progress for the modern game.





GreenFields makes
the difference

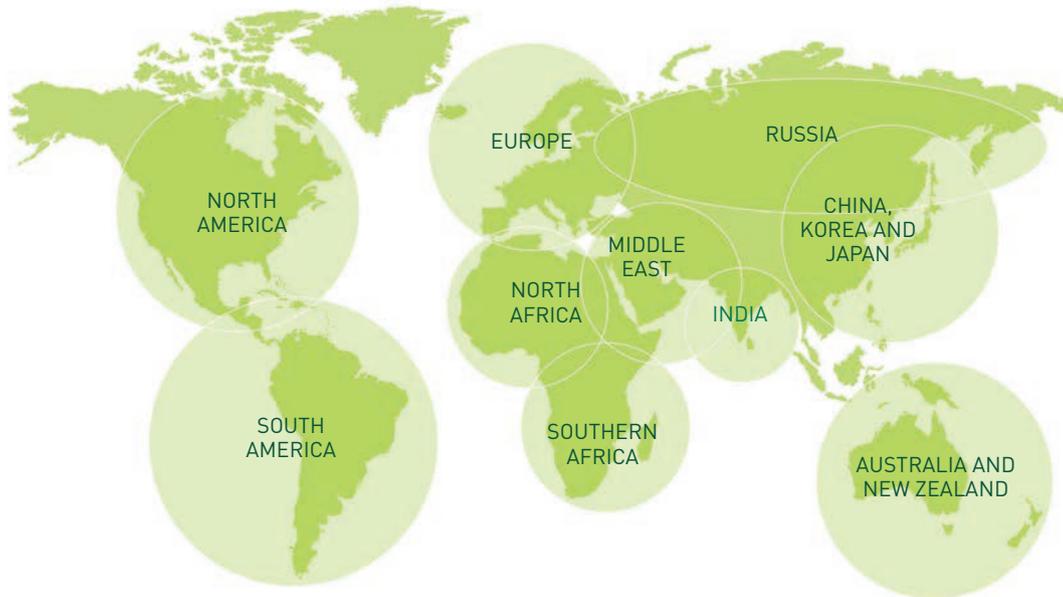
COMPANY PROFILE

GreenFields, the leading global synthetic sport surface company has long-standing experience in the development, manufacture, construction, installation and maintenance of synthetic turf systems. GreenFields' ability to provide high-quality product innovation and turnkey solutions for a range of sports is unrivalled within the sports turf industry.

GreenFields' team works to provide both cost-effective and premium quality product solutions whilst also

focusing on the research and development of innovative new surfaces for the international sports industry.

Through our internal testing facility we strive to develop products that match the requirements of the sport's governing bodies around the world. Safety standards continue to be at the forefront of our product development, but we also remain focused on the long-term performance and playability of our products.



ACTIVE WORLDWIDE

The GreenFields' head office and manufacturing facility of 24 000 m² is located in Genemuiden, The Netherlands. This state-of-the-art facility is designed to reduce CO₂ emission and reflects our environmental awareness. Our global offices cover the UK, Europe, Scandinavia, the Middle East, Asia

and India. With additional production facilities in South Africa, Korea, Algeria and United Arab Emirates and strong alliances with manufacturers in Australia, Russia and North America we are geared to meet the needs of the global synthetic sports turf market.



EXPERIENCE

GreenFields works in combination with the world's leading sports bodies to develop innovative surfaces that meet their most stringent specifications. Sharing our knowledge and experience and providing ongoing project support are at the forefront of our client service ethos.



PROFESSIONAL SUPPORT

GreenFields has a strong network of carefully selected partners across the globe. These partners are experienced in providing turnkey solutions for your individual needs and are highly trained to install all of our hockey and sports affiliated products. This personal approach ensures that in any location we are able to provide consistent quality in terms of service and product along with a professional after-sales support service. In addition, our specialised maintenance service demonstrates GreenFields' commitment to providing a durable high performance solution for your facility.



Atlètic Terrassa Hockey Club, Product: HT LSR 13 nd

OUR APPROACH

We care passionately about developing the next generation of sports stars and providing them with a stage to develop their skills in order that they can reach the highest level of performance. Providing that stage costs time and money, not only in the development of innovative products but also ensuring that those products have long-term performance characteristics. Working with clubs and end-users in assisting them to realise such facilities is our core objective.

DEVELOPMENT

GreenFields sports turf systems are developed following intense research of components that make up the end constructed product, followed by repeated testing at our internal test house facilities. Our innovative approach meets and exceeds the standards set by the world's sports governing bodies, which explains why our products are chosen by leading sports clubs, facilities and end users around the world.

As a responsible
manufacturer we understand
the social impact we can have
across the world.



CORPORATE SOCIAL RESPONSIBILITY

Our business model is structured on minimising the environmental impact of our international manufacturing processes and striving to initiate or participate in community upliftment programmes that utilise sport as a catalyst for social change.

TOWARDS GREENER GRASS

Minimising the effect of our international manufacturing processes on employee health and safety and the environment as a whole, is a key focus area for our company. We balance our dedication to the production of innovative, high-performance sports turf systems with a commitment to reducing our manufacturing footprint through ongoing waste reduction and recycling programmes and resource conservation initiatives. All GreenFields turfs contain no heavy metals and are manufactured to exacting Swiss and Norwegian environmental standards – amongst the most stringent in the world.

LEVELLING THE PLAYING FIELDS

We believe that sport can be used as a tool for positive social change. Across the globe young people – particularly those excluded because of disability, poverty, race, religion or other social and economic factors – simply don't have access to good, safe, enriching physical activity.

We are extensively involved with social upliftment programmes that use the power of sport to change the lives of young people, educate around pressing social issues such as HIV/Aids and assist with the development of skills that can lead to a better life for communities across the world.

We believe that young players should be provided with every opportunity to improve their game and develop their skills with comparative training facilities and playing surfaces to their First World counterparts. Our own GreenFields of Dreams initiative will provide isolated communities with multi-purpose synthetic turf fields that serve both as quality playing surfaces and community upliftment projects.



Manufacturing and development facilities

QUALITY CONTROL AND TESTING

All GreenFields sports turf systems pass through an extensive quality control and testing process in accordance with the stringent ISO-standards.

The quality control system involves identification and control of the yarns and primary backing before the first phase of the production process (tufting) starts. The uncoated half fabricate is stored and moved

through our factory in a strictly controlled fashion to minimise the risk of damage and ensures high end-product quality. This strict quality monitoring continues during the second phase of the production process, where the synthetic turf receives a layer of back coating to lock the fibres into the primary backing, until the rolls are packed and labeled ready to be transported.

Strict site quality controls continue after installation with the results used to improve product quality and optimise product performance.

GreenFields' strict control of product quality has been achieved by designing the production facility around the ideal production process. Routing during manufacture is organized to minimise internal transport, which results in optimal runtime and drastically reduces defects and production errors.

PREPARATION AND INSTALLATION

A high-quality sports turf system is not only determined by the standard of the playing surface but by a mixture of components in its overall construction. The civil engineering requirements in the construction phase are an essential element of the overall success of the finished product.

Our extensive network of global partners is able to offer advice and assistance in the construction of the sub-base and, if required to meet FIH standards, an in-situ or custom-built pre-fabricated shock pad. Furthermore vertical and horizontal drainage

is required to ensure an effective release of surface water from the field, all of which needs to be professionally constructed to ensure the desired standard of the playing surface.

Through the same network of partners, GreenFields also advises and offers extensive maintenance programmes that are essential to ensure the long term playability of our products and cover our warranty terms and conditions.

SHOCK ABSORPTION AND ENERGY RESTITUTION

Synthetic sports turf systems are required to provide sufficient elements for the participants such as energy restitution, shock absorption and vertical deformation. These values cannot be provided by the synthetic fibre of the system alone. Other factors affecting these values could be installation methods and the use of shockpads beneath the synthetic system. Airlastic is a company developing and producing specialist foam products for use in advanced shockpad systems that are integrated within the overall field construction thus improving playability, comfort and safety.



Towards the
perfect pitch

CI&M DEPARTMENT

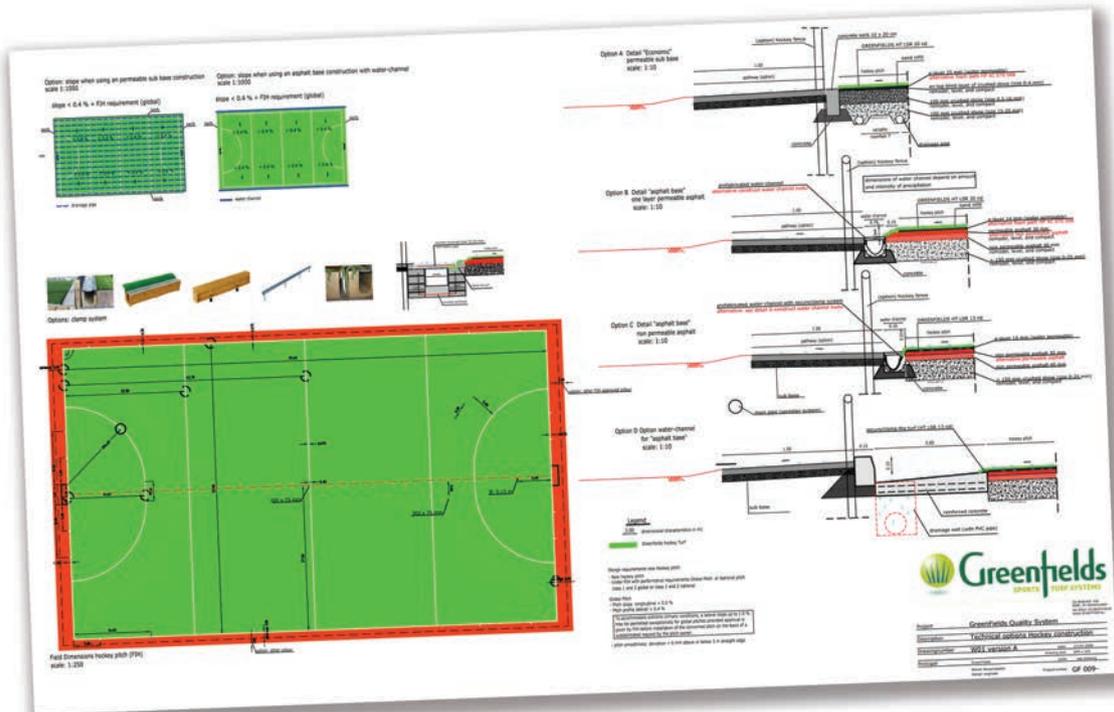
The GreenFields CI&M department (Construction Installation and Maintenance) is involved in all activities related to the construction of the sub-base, this includes design, construction, inspection, advising and development.

Before initiating any project our experienced civil engineers and technical staff perform a pre-inspection on site. The objective is to get complete information on the unique challenges and features of the project in order to prevent problems during installation. This way we can improve control of the construction and installation of our product for guaranteed quality, and

develop a professional maintenance programme for individual installations.

Every GreenFields installation is planned by our technical design team working with the latest CAD/CAM technology to ensure precision installation of drainage systems, sub-base and turf systems. Civil engineers work closely with the local installation team to ensure that every GreenFields surface meets the exacting requirements of the relevant sporting code.

The GreenFields team will also develop and implement a professional cleaning and maintenance programme for every installation – either on a once-off or a contractual basis.





High performance Low maintenance

Hilton College, Product: HT LSR 20 nd

MAINTENANCE

As GreenFields continually strive to provide first-class sports turf systems we are also committed to ensuring the longevity of these systems at the highest levels. Synthetic sports products do deteriorate over time but, with a carefully constructed maintenance regime, our product life can be extended to gain maximum value for your investment.

Whilst maintaining a synthetic sports turf system is considerably easier than that of a natural grass field, studies have shown conclusively that regular

maintenance remains an essential contributory factor in ensuring the longevity of your field. These studies have been completed on both well- and poorly-maintained fields, with dramatic results. GreenFields has found that a well-maintained field can ensure the standards of the sport's governing body are met. Therefore our CI&M department, in cooperation with our worldwide strategic partners, has developed an extensive maintenance programme that can be carried out internally under contract or by your own maintenance staff with comprehensive training provided by GreenFields' local representatives.

Our maintenance programme will ensure that your field provides continuous comfort and safety for your players. Regular testing of your field's characteristics provides essential data and will also ensure that your field meets the sport's governing bodies guidelines or your own local standards. With prompt proactive repairs and additional maintenance a dramatic reduction in long term damage can be achieved.

GreenFields CI&M department will provides technical support for all your maintenance, testing and repair requirements. Our website was developed to include an easy-to-navigate, web-based tool that provides online maintenance support 24/7.

THE RESULT

The FIH standards for hockey turf systems are designed to ensure a consistent world-class standard of surface is available internationally, a surface that requires a minimum amount of maintenance, yet is available for the development of players' skills all year round. Through research, testing, the development of innovative products as well as training and strategic partner relationships, GreenFields provides you with surfaces able to meet these stringent standards at the project inception and in the long term.

GREENFIELDS SYSTEMS CERTIFICATED BY FIH:

The Federation of International Hockey (FIH), the world hockey governing body has been researching products in an effort to reduce the dependence on expensive hockey systems. Our GreenFields hockey systems are able to conform to the standards required following this research by the FIH.



- HT 6.6/AL Water-based
- HT PA 13 ND/EL Water-based
- HT LSR 13 ND/ EL Water-based
- HT LSR 13 ND/ XC Water-based
- HT LSR 20 ND Semi water-based
- HT LSR 20 ND/EL Semi water-based

OUR ADDITIONAL SAND-FILLED SYSTEMS INCLUDE:

- HT LSR 24 Sand-filled system

Please contact us for an up-to-date list of systems certificated by FIH, or visit our website: www.greenfields.eu



TESTIMONIALS

NATIONAL DEFENCE ACADEMY: PUNE, INDIA

GreenFields Sports Turf Systems laid a HT LSR 13 ND, FIH approved global product, water-based hockey pitch at the National Defence Academy, Khadakwasla, Pune. This turnkey project was carried out to the highest international standards and involved the construction of a sub-base, installation drainage and sprinkler systems as well as an elastic layer and turf carpet. We have been very impressed with GreenFields' professional approach, which emphasises player needs and playing comfort as well as the outstanding quality of project execution delivered by their company contractors and project site workers.

**Maj. Gen BS Grewal, Deputy Commandant & CI
National Defence Academy Pune, India.**



HILTON COLLEGE, KWAZULU-NATAL, SOUTH AFRICA

GreenFields has played a significant role in the growth and development of inland hockey in the KwaZulu-Natal region. The synthetic turf installation has been carried out with meticulous attention to detail and to the highest quality standards. The expert advice and assistance provided by the organisation throughout has been invaluable in ensuring optimal performance and playability. We are extremely happy both with the facility and the level of professional support we have received from GreenFields.

The Association has no hesitation in recommending GreenFields as a world-class provider of competitive, durable synthetic sports turf systems, enjoyed by players and spectators alike.

**Gary Carson, President KZN Inland Hockey Association,
South Africa.**



SUPERIOR SYNTHETIC TURF SYSTEMS FOR ANY APPLICATION

GreenFields develops and manufactures complete artificial turf solutions for a range of sporting applications besides hockey. Basically, if you can play it on turf, you can play it on GreenFields!

FOOTBALL

GreenFields' exclusive partnerships with experienced suppliers and manufacturers enable us to provide an unequalled range of football turf systems – from affordable budget-driven solutions to turnkey engineered systems.

FIFA RECOMMENDED

GreenFields boast numerous FIFA Recommended 1 and 2 Star installations in Europe, South America, Asia and Africa.

GOLF

GreenFields Golf & Leisure® has long-standing experience in the development, manufacture, construction, installation and project management of innovative synthetic golf systems. From private putting greens and driving ranges to tee off mats and tee boxes all the way to completely engineered golf courses or commercial indoor facilities, we are committed to providing an outstanding golfing surface for any requirement.



TENNIS

GreenFields is committed to the development of premium synthetic tennis surfaces. Easier to maintain than traditional grass courts, wear-resistant GreenFields surfaces allow for year-round play and superior performance.

CLASSIC CLAY™ – ALL THE BENEFITS OF CLAY COURTS, WITHOUT THE MAINTENANCE

This unique “waterless” clay tennis court surface is manufactured in Australia and exported worldwide. Classic Clay™ surfaces require no watering or rolling and, due to their superior drainage, they can be played on immediately after rain.





RUGBY

With the evolution of synthetic surfaces the opportunity to improve the playability of rugby fields has never been better. GreenFields surfaces transform training sessions and games, removing the frustration of sliding around in cold, wet mud.

BASEBALL

With our unique in-house laboratory, and strong international partnerships GreenFields is continually building on research to develop synthetic turf systems ideal for the fast-paced sport of baseball.

CRICKET

Following extensive research, testing and development GreenFields has set new quality standards for synthetic cricket pitches. GreenFields cricket pitches encourage natural ball turn and bounce and promote a balanced game between bat and ball while dramatically reducing groundkeeping time thanks to their high-quality raw materials, superior drainage and installation.

BOWLS

Synthetic greens provide clubs with outstanding low-maintenance greens that are playable all year round. GreenFields bowls surfaces emulate the natural speed and draw of natural turf with enhanced comfort underfoot and increased playing time in all conditions.

LANDSCAPING

Developed using our more than 20 years of manufacturing experience in the synthetic grass industry, our landscaping products offer the same low-maintenance benefits and aesthetically pleasing constructions as GreenFields synthetic turf systems.





Why GreenFields makes the difference:

- Constant innovation
- High quality products
- Turnkey solutions
- Unique in-house laboratory



GreenFields B.V. | PO Box 218 | 8280 AE | Genemuiden | The Netherlands

T: +31 (0)38 33 72 010 F: +31 (0)38 33 72 011 info@greenfields.eu

www.greenfields.eu