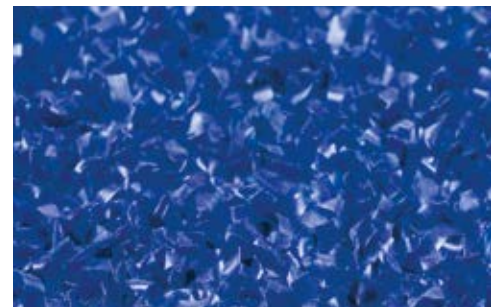


polytan



FULL CATALOGUE

POLYTAN SPORTS SURFACES



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SYNTHETIC TURF



ENTANGLEMENT technology
High resistance against wear and soft filaments



CoolPlus function
Reflects infra-red radiation, providing a cooler surface



SharkSkin technology
Smoother surface, reduced glare and a more natural look



BiColour
Two-tone filaments for an even more natural appearance



Texturing process
Texturised filaments for lasting turf volume and easy maintenance and care



PreciTex
High-performance texturing process for precise multi-shape filament cross-sections



MultiBack technology
Textile secondary backing for improved dimensional stability and force absorption



100 % PE formulation
Exclusive PE formulation



Certifiable
Suitable for certifications from the World Sports Associations or according to national/international standards



RAL-tested
100 % quality control through neutral testing institute



Resource conservation
Careful use of resources



Professional
Suitable for stadiums and professional sports



Performance
Suitable for club sports and municipal facilities

SYNTHETIC SURFACES



Waterproof
Waterproof surface



Water-permeable
Water-permeable surface



Smooth
Surface with flat-laid, bound granules



Structured
Surface granules interspersed with visible tips



Spike-tested
Suitable for running shoes with spikes



Seamless
No seams and abutting edges, easy maintenance with long lifespan



MultiColour
Colour-coordinated areas for more individuality



Indoor multi-functionality
Suitable for multi-purpose halls



Certifiable
Suitable for certifications from the World Sports Associations or according to national/international standards



RAL-tested
100 % quality control through neutral testing institute



Resource conservation
Careful use of resources

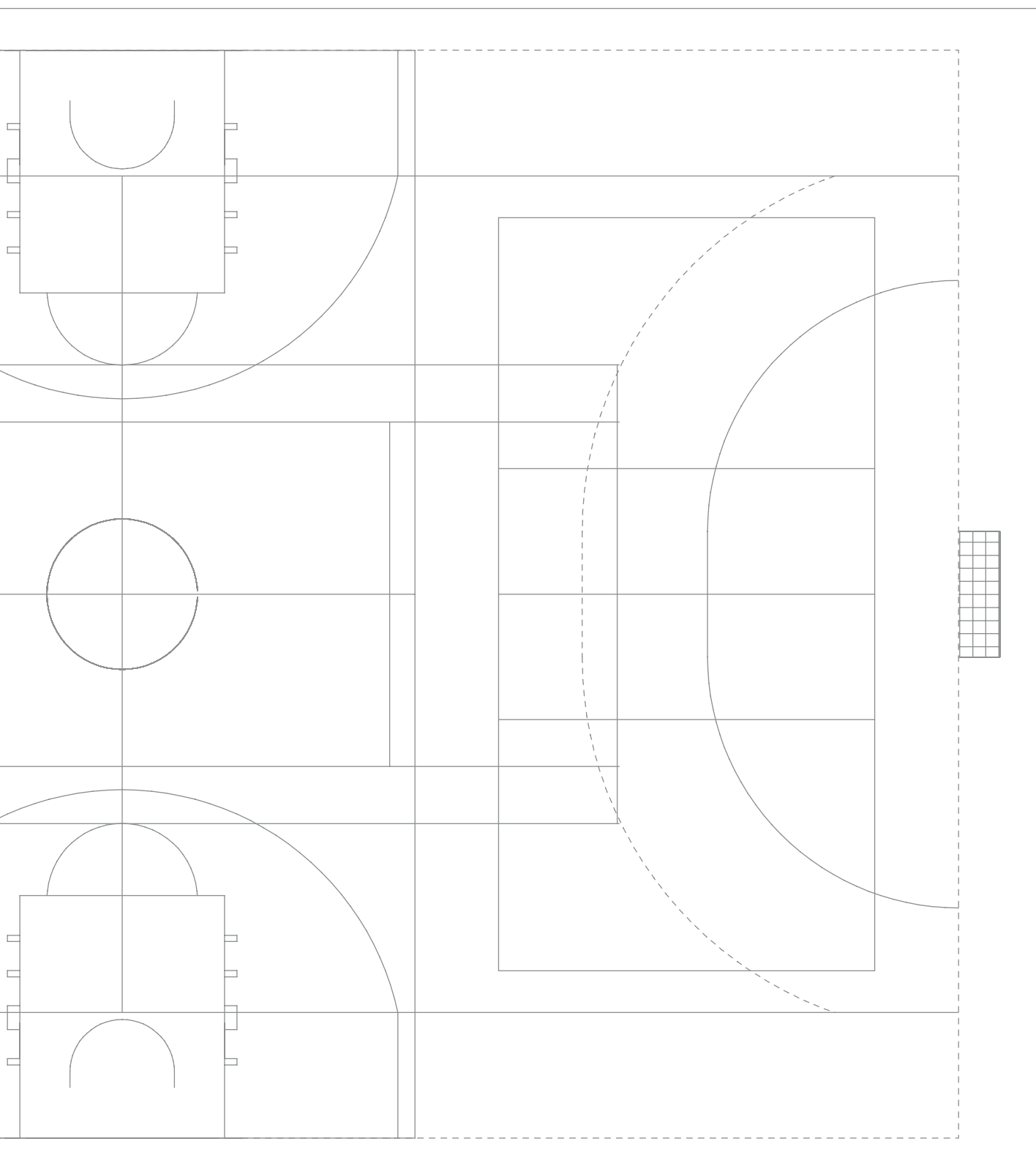


Professional
Suitable for competitive sports



Multifunctional
Suitable for school sports and ball sports

polytan



WE HAVE BEEN DEVELOPING, PRODUCING
AND INSTALLING HIGH-QUALITY SPORTS
SURFACES AND SYNTHETIC TURF SYSTEMS
WORLDWIDE FOR MORE THAN 40 YEARS.
EACH AND EVERY DAY WE PUT OUR FULL
COMMITMENT, EXPERTISE AND PASSION
INTO PROVIDING OUR CUSTOMERS, BUIL-
DERS, PLANNERS, CLUBS AND ABOVE ALL
SPORTSMEN AND SPORTSWOMEN WITH
THE PERFECT BASIS.

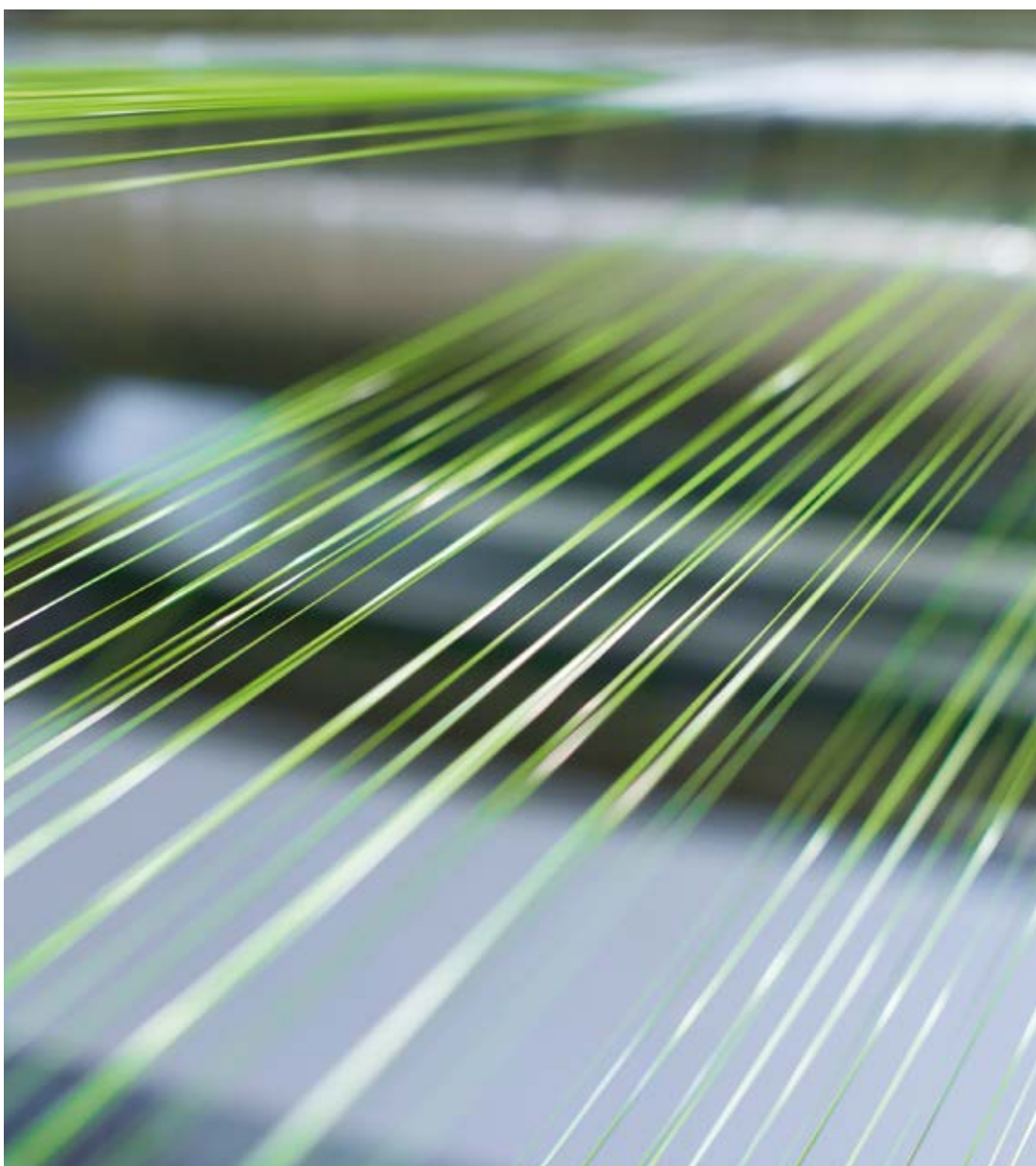
FOR ACHIEVING SUCCESS –
BUILT ON EXCELLENT PRODUCTS,
HONESTY AND A PARTNERSHIP-BASED
APPROACH TO HELP THEM SUCCEED.



IT'S ALL ABOUT YOU!

We aim to give you even more than the top-class product you expect: Universal support that includes both expert advice and the courage to suggest something you hadn't originally considered. Solutions that suit both your requirements and your budget. Outstanding quality products and systems that have been making our customers happy for years. And a wide range of services so that you always know that you've made the right choice by purchasing one of our products. Competence, openness, flexibility and responsibility are the keywords we use to define our relationships with customers.

OUR INSPIRATION:
A PASSION FOR TOP-CLASS PERFORMANCE





HIGH-QUALITY SPORTS SURFACES. SINCE 1969

Our mission at Polytan has been to provide the perfect surface for athletic achievements since 1969.

What started out as pioneering work on synthetic sports surfaces has now turned into a passion that drives us to keep striving to achieve higher and higher targets in terms of quality and service. That passion has enabled us to become one of the leading international suppliers of synthetic turf and synthetic surfaces.

Today, we can provide customers with the perfect solution to suit their individual requirements: from synthetic running tracks to all-weather pitches and soft impact surfaces through to highly sophisticated synthetic turf systems.

Polytan GmbH is certified for the construction of sports facilities in accordance with ISO 9001 and ISO 14001. The certification covers the scopes of development, consultation and sale, installation and service of synthetic turf systems, synthetic tracks, multi-purpose pitches and soft-impact systems.



1969

Firl + Schretter Sportstättenbau OHG in Neuburg an der Donau is founded and starts specialising in installing polyurethane-bound synthetic surfaces for sports facilities. „Polytan“ becomes a registered trademark.

1974



PRATER STADIUM, VIENNA

Polytan installs the first synthetic surface (Polytan M) on a large running track at an international athletics stadium.

1975

1978



WILDPARK STADIUM, KARLSRUHE

When it opened back in 1955, the Wildpark stadium was one of the most cutting-edge sporting arenas in Germany. For the refurbishment of the athletics facilities in 1978/79, Polytan is commissioned with installing the synthetic surfaces. The company lays a Polytan PUR track in brick red.

EXPANDING THE PRODUCT RANGE

The period from 1975 to 1985 sees Polytan start to progressively expand its market position: the product portfolio is expanded to include the production of raw materials for polyurethane-bound synthetic surfaces. Signature features include sales, production and installation from a single source.

1995

Polytan expands its operations with the newly acquired production facilities for synthetic turf and polyurethane in Grefrath (North Rhine-Westphalia).

1996

THE OLYMPIC STADIUM IN MUNICH

Polytan updates the 1972 track in time for the Spar European Athletics Cup, laying a state-of-the-art Polytan PUR surface using a re-topping process.

2002



COMPLETE RENOVATION AT THE OLYMPIC STADIUM IN MUNICH

To prepare the site in time for the 18th European Athletics Championships, the whole of the old track is taken up and replaced by a brand new Polytan M track in brick red.

2003

NEW SYNTHETIC TURF PRODUCTION PLANT IN GREFRATH

2003 sees the introduction of fully vertical manufacturing for synthetic turf products at Polytan. A complete coating and extrusion plant for synthetic turf is installed in Grefrath.

PARTICIPATION IN THE FIFA QUALITY PROGRAMME FOR FOOTBALL TURF

Polytan becomes a licensee in the FIFA Quality Programme for Football Turf and installs the first FIFA Recommended 2 Star certified synthetic turf pitch.

2004



LA PAZ, BOLIVIA

In 2004, Polytan lays its highest ever football pitch at around 4,000 metres above sea level. And it's not just the low-oxygen climate which makes laying the 9,000 m² synthetic pitch a challenge, everything first has to be transported up the mountain in a lift.

2005



SYNTHETIC FOOTBALL PITCH AT A EUROPEAN PREMIER LEAGUE CLUB

Polytan lays a synthetic pitch system at the Red Bull Arena Salzburg, the first premier league home stadium in Europe to be equipped with such technology. The stadium is equipped with the successful LigaTurf system. Further premier league clubs in Europe soon follow suit, with pitches being laid at the Stade de Suisse in Bern and the Stadion La Maladière at FC Xamax Neuchatel.

2006



WORLD ATHLETICS FINAL

Ready for the IAAF World Athletics Final in 2006, 2007 and 2008, Polytan installs a new reseda green surface at the Gottlieb Daimler Stadium (now known as the Mercedes Benz Arena).



U17 WORLD CUP IN PERU

The under-17s football world cup in Peru becomes the first tournament in footballing history to have all 31 matches played on synthetic turf. Four of the five stadiums are equipped with Polytan's tried-and-tested LigaTurf synthetic turf system. Turf is laid at the stadium in the capital city of Lima, as well as at the 25,000 seater arenas in Trujillo, Chiclayo and Piura – all in a record-breaking time of just eight weeks!

2007

From 2007 onwards, Polytan continues to develop its market and quality leadership worldwide by acquiring the companies STI, EnviroSport and Sportsbygg.

2011

Polytan breaks the world record for FIFA-certified synthetic turf pitches and becomes a FIFA preferred producer under the joint brand name Polytan|STI.

2012



Polytan|STI becomes a licensed World Rugby Preferred Turf Producer as well as an FIH Preferred Supplier and supplies the hockey pitches for the Olympic Games in London.

2014

EXPANSION OVERSEAS

With the acquisition of TeamSports, a leading Australian provider for sports and leisure facilities, Polytan invests to a greater extent in its activities abroad.

2015



WOMEN'S FOOTBALL WORLD CUP IN CANADA

For the first time ever, all matches for the Women's Football World Cup are played on synthetic turf. Polytan provides a synthetic turf system for sites such as the BC Place stadium in Vancouver, which hosted the finals in Canada.

PERFECT TEAM PLAY



WE MAKE OUR CUSTOMERS SMILE

THE POLYTAN SYSTEM

Every situation is unique which means that every solution also has to be unique. At Polytan, we take a systematic approach based on a well thought-out system consisting of coordinated individual modules that can be combined to meet the intended use in each case. In order to ensure perfect results, we retain full control of all components and all stages of production.

So you can be assured that everything will come from a single source: from the development of formulas through to the installation and even removal of systems. By doing this, we are able to offer our customers solutions that are perfect: perfect for the sports played and perfect for the requirements of the user.

MADE IN GERMANY

Designed, developed and produced in Germany – that is how we take responsibility for providing quality for our customers.

RESEARCH AND DEVELOPMENT

We have our own research department and laboratories and are able to leverage our competence and experience in working with sports surfaces.

PRODUCTION

We produce everything ourselves, from the master batch to the finished fibre – the only manufacturer of sports surfaces to do this.

SYSTEM DESIGN

Polytan solutions are system solutions – we develop the optimum product to suit your requirements by combining the relevant system components produced by our group of companies.

QUALITY MANAGEMENT

Numerous checks and quality assurance measures guarantee a consistently high level of product quality.

SUSTAINABILITY

Sustainability is the quality of fulfilment of our responsibility towards nature and the environment.

CONSULTING AND CUSTOMER SERVICE

We focus on providing tailor-made sports systems and services since satisfied customers are always the best form of advertising.

INSTALLATION AND ASSEMBLY

Everything from a single source. An optimum product must also be optimally installed and that is why we only trust our own experienced installation teams.

MAINTENANCE, REPAIRS AND REMOVAL

Our solutions are designed to last and that is why we offer a comprehensive range of maintenance and repair services. We can also take care of the removal of old systems.

MADE IN GERMANY



THINKING GLOBALLY. GERMAN MANUFACTURING.

COMMITTED TO SUCCESS

We regard success as being the fulfilment of our responsibility for maintaining a consistently high level of product quality, for our customers' investment in our products, for the social security of our employees and not least for protecting our environment. We develop, produce and source products in Germany. Taking this approach gives us full control of all the stages of production.

MADE IN GERMANY – INSTALLED WORLDWIDE



A NEW APPROACH TO THINKING AND DOING





TO REMAIN AT THE TOP, YOU HAVE TO KEEP ON IMPROVING

Polytan's formula for success has been to ensure the highest quality possible along the entire value chain. But of course, there is a whole range of other vital formulas that are locked away securely in the safe in our research and development department. After all, our sports surfaces are manufactured according to our own formulations and processes that we have developed ourselves. We also enhance and improve our products on an ongoing basis. In the process, we focus particularly on anticipating and analysing the interaction between the individual system components, their impact on their environment and other stress factors. Polytan understands the impact this can have and adapts its material compounds accordingly. To keep a record of its findings, the company develops and tests specification profiles and testing methods both internally and in cooperation with independent test labs. These methods help to make sure that the system holds up even under the toughest of conditions – both when it comes to sporting and physiological performance, and when it comes to durability, sustainability and the environment.

In particular, we have successfully developed a number of innovations in recent years that make our products unique in a variety of ways in the relatively young market of high-quality synthetic turf systems.

Synthetic turf systems, however, are not the only area where we have developed key innovations. We also continuously work on our formulations and system designs for our running surfaces to support elite and amateur athletes alike in their quest to achieve improved performances and break records.

THE BEST WAY TO GUARANTEE QUALITY:
DO EVERYTHING YOURSELF



FULL CONTROL OVER EVERY DETAIL

The high quality of our sports surfaces is the result of a complex chemical-physical process that demands care in every stadium. That is precisely why we, uniquely as a manufacturer, produce all of our products ourselves, starting with the components. Whether they relate to product, production or installation, we continue to work to find optimum solutions, developing technical innovations to enable even better sporting performances and greater success to be achieved on our surfaces.

In order to guarantee consistent quality, we also make sure that all our system components are produced in Germany. For example, the DNA of our turf fibres is produced in-house by formulating high-quality polyethylene granules using the master batches that we produce ourselves. Those master batches determine the specific properties of the turf filament, e.g. the colour, UV resistance, elasticity or surface temperature.



OUR SYSTEM'S STRENGTHS SPEAK FOR THEMSELVES



THE PERFECT COMBINATION

Regardless of whether you need a running track or synthetic turf, Polytan compiles tailor-made combinations of high quality components to suit a wide array of requirements. Our lab technicians work every day to make our components even better and find new ways to combine them for an even better result. Take synthetic turf, for example: What is the best infill, height and filament to use for natural ball behaviour? How can we combine the components of the elastic layer with the playing surface to make sure that players stay well-protected on a permanent basis? Which filaments should we use for a particular purpose and setting to make sure we meet both the user's and the operator's requirements? Applying this approach over the years has helped us to perfect our component combination process and develop system compounds that are ideally suited to the range of different ways we use synthetic turf and surfaces.



WE WANT TO MAKE SURE YOU GET THE BEST





AVERAGE ISN'T GOOD ENOUGH

All products are rigorously inspected – far beyond the current applicable standards and regulations – in our own technical centre.

We focus on protecting our players and test the biomechanical behaviour of our turf and running track systems by carrying out intensive long-term studies. During comprehensive simulations, we perform detailed tests on the interaction of the fibres and filling materials until all components are perfectly matched.

Our turfs are put to the test during ongoing quality controls. To simulate the mechanical stress loads, they are run through more than 100,000 test cycles with the Lisport tester rather than the 20,000 test cycles which are normally required.

In order to test the performance of our sports surfaces, properties such as ball bounce and ball roll behaviour as well as shock absorption and deformation are regularly tested.

AWARDED THE RAL QUALITY MARK

High demands have to be satisfied across the board. That is why our quality auditing is based on the RAL system across the board, in production as well as installation.

The RAL system makes higher demands on quality than other audit systems and requires us to maintain our standards on a daily basis.



RAL quality mark
Synthetic turf systems



RAL quality mark
Synthetic surfaces

TAKING RESPONSIBILITY FOR THE FUTURE TODAY



Polytan has always attributed great importance to sustainability and environmental compatibility. As a system manufacturer with our own research and development, production, sales and in-house installation technology, we can stay true to this claim in our own special way. We focus on ensuring that resources are appropriately and carefully used in each and every life-cycle phase, from selecting the raw materials to production, installation and use through to disposal and recycling.

This ensures that all Polytan synthetic turf systems are manufactured on state-of-the-art machines in our production facilities in Grefrath located in North Rhine-Westphalia, Germany. By using environmentally compatible raw materials and energy-saving manufacturing processes, they meet all environmental requirements in accordance with the relevant national and international standards and fall well within the required limits. In 2014 we launched synthetic turf systems made from sustainable raw materials.



Our Central European production sites also ensure short and efficient transport routes in all European markets and therefore reduce the “grey energy” of our sports surfaces. In addition, our synthetic turf systems allow for considerably more intensive use over natural grass, which above all yields noticeable positive effects for surface use in congested urban areas. Maintenance and servicing also require significantly less costs and resources than natural grass, thanks to dramatically less water consumption in particular.

As a responsible full-range supplier, we also have specific expertise and long-standing experience in repairing and refurbishing sports surfaces, which further improves the ecobalance of our products. And we are still there for our customers, even after the effective life is over, offering cost-effective solutions for the removal, reuse, recycling and recovery of our products.

CUSTOMER SERVICE IS PART OF OUR
EVERYDAY BUSINESS



INDIVIDUAL SUPPORT RIGHT FROM THE START

Each order is unique and tailor-made to the customer's requirements. That is why we provide personal support for our customers and potential clients right from the start. What does this mean? One of our experts accompanies you through the whole project process. We don't just help you to select the right product and ideal system components, we also help you to plan your project so that everyone is happy with the final result: from the builders and planners to the clubs – and last but not least, the players and athletes themselves.

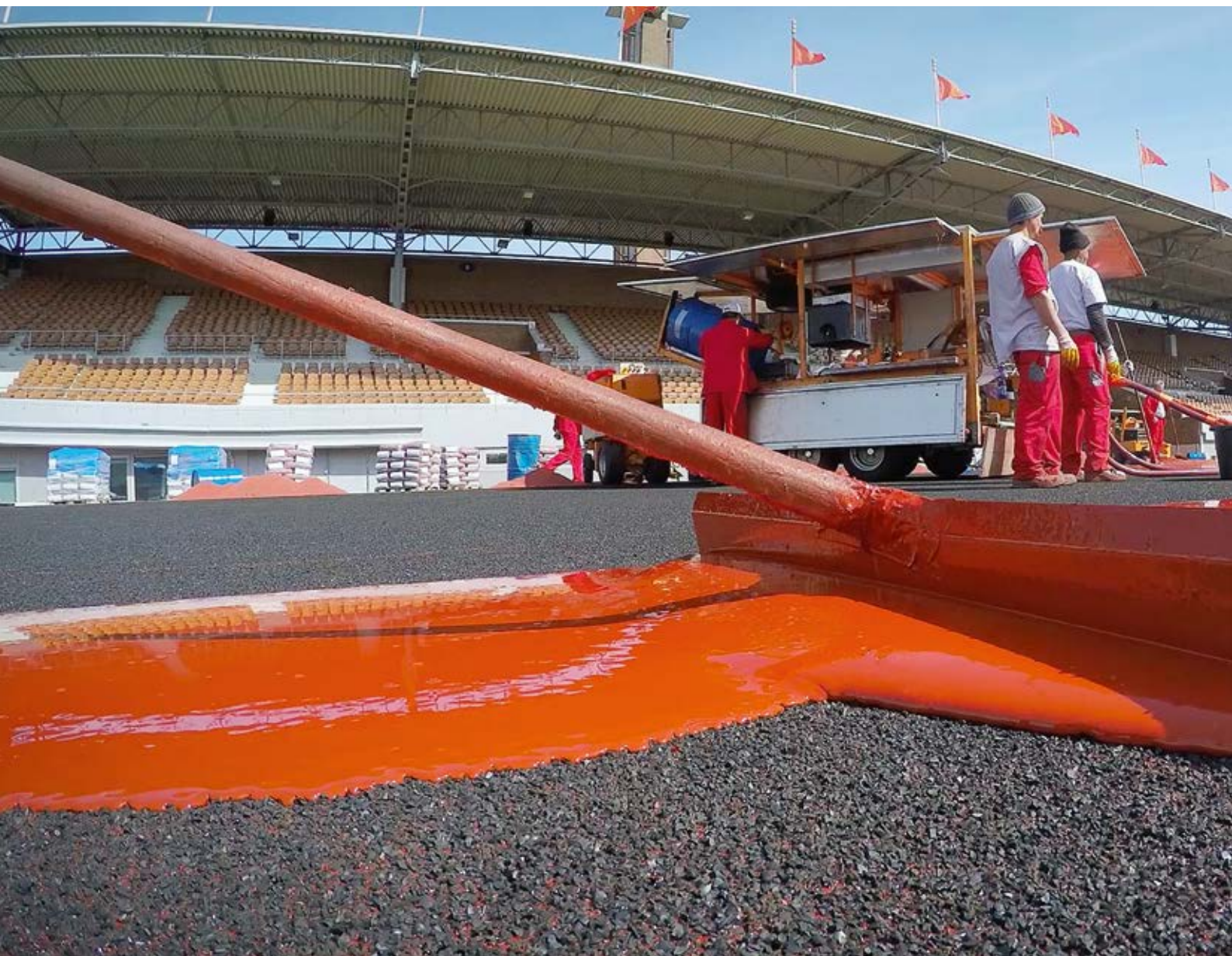
INFORMATION IS EVERYTHING

Being well-informed helps you to make better decisions. Here at Polytan, we can provide you with a wealth of information that tells you everything you need to know about synthetic surfaces and synthetic turf systems. We are also happy to provide you with samples so that you can get a feel for the quality of our products

Whether we're helping to create CAD plans or providing detailed technical drawings, our in-depth knowledge of sporting facilities means that we're the ideal support for architects and planners when it comes to technical drawings, marking plans and layout plans. We would also be happy to provide you with references.



PERFECTION FROM START TO FINISH





OUR SYSTEM DESERVES TO BE INSTALLED CAREFULLY

Installing outdoor sports surfaces demands specific expertise and a high level of precision and experience. After all, the optimum sports physiological properties of the surface can only be harnessed when all components are professionally and properly installed.

That is why Polytan has its synthetic surfaces and synthetic turf systems installed normally by its own employees who are specially trained on the respective products and use our own equipment.

This is the only way to ensure that the system components fine tuned by our development department meet the quality required at the installation site. We apply in-situ methods when installing our synthetic surfaces. This means that we don't use any pre-manufactured parts. Instead, we use special machines on site to lay the entire surface for a seamless and even result. This allows us to adapt our approach to match the site's unique conditions and therefore ensure that the track has excellent uniform performance characteristics over the entire surface. All system components, right down to the markings and lines, are installed by our own specialists or certified partners.

OUR SERVICE GOES ON. AND ON. AND ON.





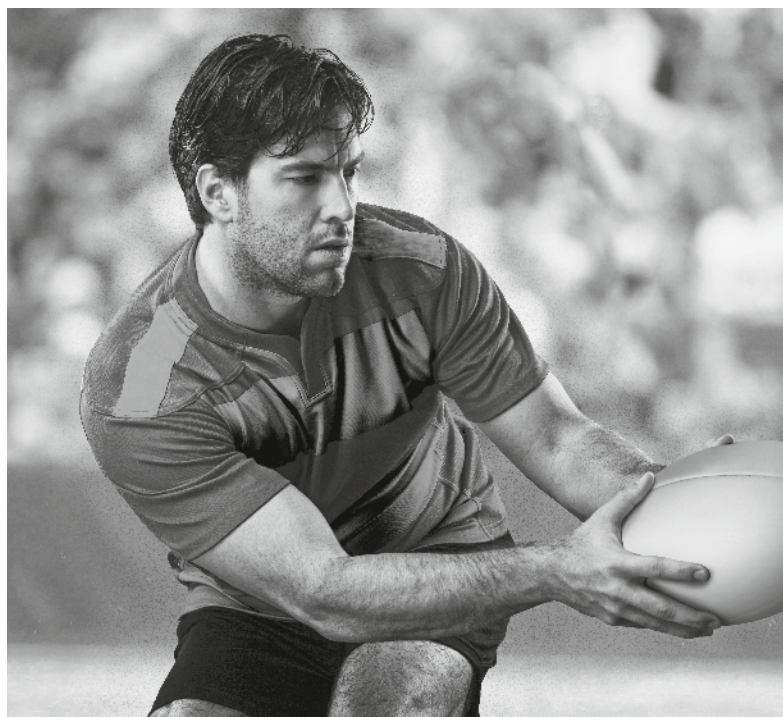
AFTER THE GAME IS BEFORE THE GAME

In order to guarantee the quality of our high-quality system solutions, we decided not only to carry out installation but also to look after the removal of old systems. We use one of the most efficient removal machines in the world which separates all the materials as much as possible on site.

Repair, cleaning, retopping, line marking, topping up infill, decompacting, raking, replacing penalty spots – these are just some of the activities within our service portfolio that we can carry out for you after installation.

SYNTHETIC TURF SYSTEMS

WE DEMAND THE HIGHEST STANDARD OF QUALITY



	FOOTBALL	RUGBY	AMERICAN FOOTBALL	HOCKEY	TENNIS	MULTISPORT	
LT RS Pro II CP	■						Straight filaments, filled
LT RS+ CP WCE	■	■	■				
LT R CP	■		■				
LT Ultimate CP	■	■	■	■		■	
LigaGrass Pro CP	■			■		■	Texturised filaments, filled
TerraGrass				■	■	■	
Poligras Platinum CP				■			Texturised filaments, unfilled
Poligras Mega CP				■		■	
Poligras Terra CP				■	■	■	Texturised filaments, filled



CERTIFIED AND PREFERRED



Sports are a combination of passion and technique. When these two elements meet, they create sublime magical moments. With a feeling similar to natural grass. With the ideal playing conditions. And with maximum durability and longevity. Polytan synthetic turf systems are the result of decades of research and development always driving towards the same goal: enabling athletes to achieve perfect performances.

The high quality and excellent playing properties of our synthetic turf systems have also been verified by numerous seals of quality and certificates. For example, all Polytan synthetic turf systems meet current national and international standards and have also been certified by a number of international sporting associations. Established in 2014, the Poligras brand brings together all leading hockey products from the international Polytan group.



Polytan is a FIFA Preferred Producer. Thanks to the high requirements of FIFA and the quality leadership of Polytan as a FIFA Preferred Producer, clubs and players benefit from football turf systems which meet the highest standards and are tailored to customer requirements. Polytan ensures compliance with the quality standards required in the FIFA Preferred Producer programme by employing an integrated process ranging from production to installation.

As a licensee in the FIFA Quality Programme, football turfs from Polytan can also be certified according to FIFA RECOMMENDED standards and approved for use as an official playing surface for national and international football competitions, including the UEFA CHAMPIONS LEAGUE and FIFA World Championships. Polytan has received the most recertifications worldwide based on the FIFA Professional Standard, the highest quality rating – proof of the performance and sustainability of Polytan system design and its high-quality synthetic turfs.

WORLD RUGBY

As a Preferred Turf Producer for World Rugby, Polytan is living up to its role as an innovative and expert partner for sporting associations from across the entire world of sport. World Rugby's Regulation 22 is a set of consistent regulations concerning the use of synthetic turf as a playing surface for rugby. With its Preferred Turf Producer Programme, World Rugby aims to make sure that pitches meet all relevant requirements, particularly in terms of player protection, and that rugby experts can contribute to research and development projects to help synthetic turfs meet the needs of the sport. The Preferred Turf Producers and accredited test labs appointed by World Rugby play a particularly important role in ensuring that turf systems meet top quality and performance standards.



FIH

Synthetic turf has already established itself as the standard in the world of hockey, replacing natural turf as the pitch type for all performance classes. In light of this development, the FIH, the International Hockey Federation, started work on regulations for artificial turf at a very early stage. Polytan has been a member of the FIH right from the start, becoming a leading force in the development and definition of requirements and tests for hockey turf systems. The fact that Polytan has already supplied the hockey pitches for three Olympic games is testament to its special expertise in hockey pitches. It therefore comes as no surprise that Polytan is the FIH's exclusive partner and preferred supplier for pitches for international hockey competitions.

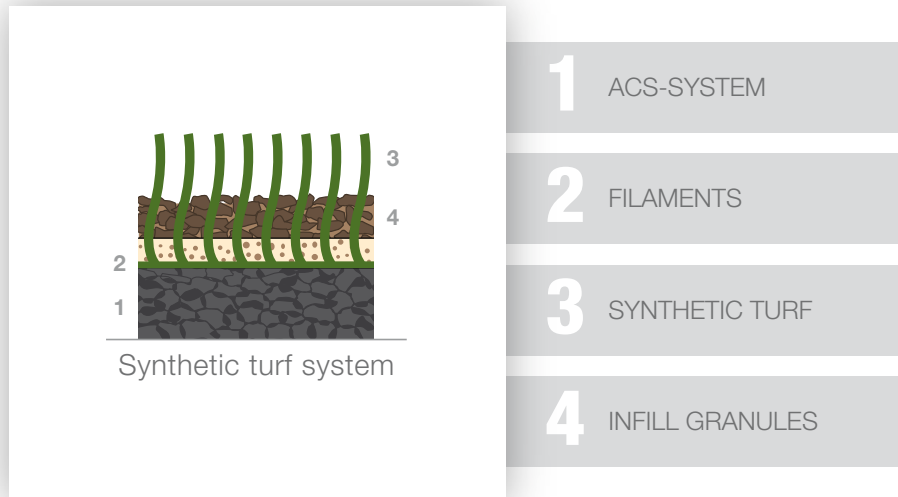


ITF

The International Tennis Federation analyses the most important criteria for all types of tennis court. Within this programme, it assesses surfaces by categorizing them according to court pace ratings for use on tennis courts. Polytan has an array of different systems that have been certified by the ITF. Our products cover a range of pace ratings, from slow to medium fast.



THE POLYTAN SYSTEM



Various factors are taken into consideration when defining the playing conditions, finish, resilience and durability of synthetic turf systems. Our task is to find the ideal combination of elastic layer, turf and infill granules for the requirements, type of sport and local conditions in question. Developing each individual component separately is no longer good enough when it comes to meeting the demands of state-of-the-art artificial turf. As an expert in synthetic sports surfaces, Polytan has been applying this approach ever since its first synthetic turf project and has continued to hone its systematic construction to perfection.

1 POLYTAN ACS SYSTEM

The Polytan Anti-Compaction System (ACS) is a precisely defined combination of components, creating the ideal blend of elastic layer, artificial turf surface and infill granules.

1.1 ELASTIC LAYER AND IN-SITU INSTALLATION METHOD

The centre piece of the Polytan ACS System is an elastic layer which Polytan always installs on site. The layer is made up of elastic rubber granules and a PU bonding agent produced by Polytan. This construction offers a wide range of advantages, so many, in fact, that no other elastic components come close to it. Recycled, highly elastic SBR rubber granules enable us to create permanent elasticity, which is not only good for your environmental performance thanks to the use of recycled SBR, but also ensures good elasticity for over 30 years. Our in-situ installation method evens out any irregularities on the base surface, creating a smooth uniform surface for safely laying the turf. The surface's reliable and consistent drainage properties are also particularly impressive. A unique feature for the area of elastic layers is the fact that they always deliver the level of elasticity (shock absorption and deformation) needed for player safety. This still applies in the event of complete deterioration of the turf layer, displacement of the infill material or other negative effects that could occur on a temporary or permanent basis resulting from the use of the synthetic turf. Thanks to its fail-safe properties and the other advantages named above, our system is the all-round champion of elastic layers.

1.2 BONDING AGENT

During our in-situ installation process, the polyurethane bonding agent's role is to make sure that the elastic layer remains elastic and durable. Provided that the perfect mix of SBR rubber granules and PU bonding agent is found, an elastic layer that is installed using our in-situ method can last for over 30 years. To find the right combination, we have to select the right type and size distribution of highly-elastic SBR granules, choose the right bonding agent and adjust the required quantity of PU. During the mixing process, the binder surrounds the SBR granules and binds them together to form an elastic and water-permeable compound. This binding process also delivers outstanding figures for the environmental compatibility of our construction method, as proven by the results of annual quality inspections conducted by independent test labs.

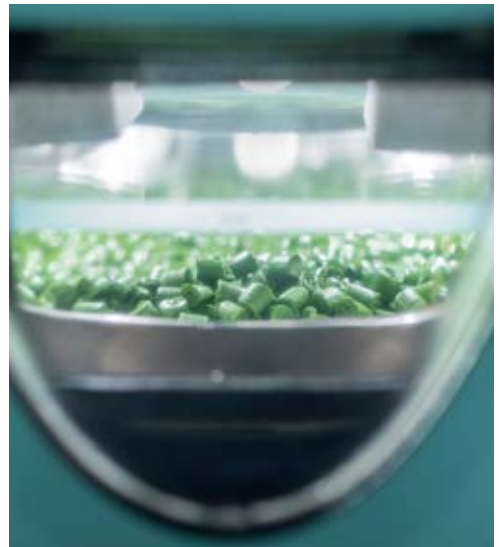


2 FILAMENTS

All Polytan turf fibres consist of a high-quality PE polymer formulation, developed completely in-house by our own research department. Our „master batches“ determine the specific properties of the filament and have been rigorously tested in-house to create a surface that is particularly skin-friendly. Ongoing further developments, such as ENTANGLEMENT technology or the CoolPlus function, mean that our products are getting better all the time. The decision to use straight or texturised turf filaments is based largely on the intended purpose.

2.1 FILAMENT FORMULATION AND RAW MATERIALS

When developing a long-lasting, sustainable turf these days, you will need the key ingredients of high-quality raw materials, the right mix of compound, an even distribution of stabilisers and a fine-tuned production process. These are much more important to the success of a turf system than the fibre design, cross section or yarn weight. You will only get the perfect filament out of your raw materials if you are able to gain command of your materials and develop a sophisticated production method. The key criteria for the filament are a high level of wear resistance, ideal softness and reliable fibre resilience to make sure that the turf still benefits the user over a longer period of time. Polytan has mastered this process, from compounding to the finished filament. All yarn formulations are developed at our in-house lab and produced on site at our production facilities.



2.2 STRAIGHT

Straight filaments help to create a more natural grass look. They are designed to reflect the appearance of a blade of grass as closely as possible and can also come in one or two colours. The cross sections of the filament (see 2.7) are also often based around a blade of grass.

Straight turf filaments are the ideal choice for football pitches or playing fields used for the odd football match. They feel soft for the players and create a natural feel for the match with perfect rolling and rebound properties. Turfs using straight filaments are therefore the preferred style of turf for professional football, rugby and American football.



Straight filaments

2.3 TEXTURISED

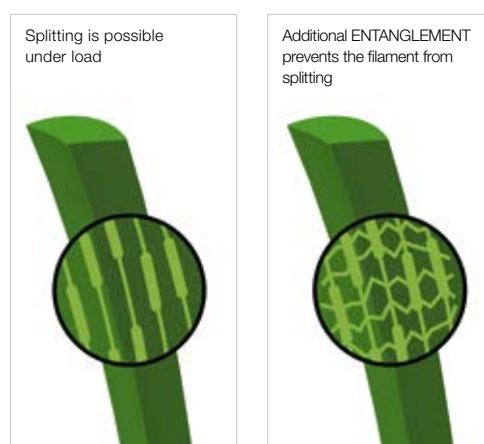
Texturised turf filaments have come a long way over the past few years. Thanks to specially designed raw materials, special cross sections and texturing technology, they are now a lot softer than the original texturised filaments. As a result of these developments, texturised filaments are becoming increasingly popular in all areas. The texturised structure efficiently holds sand and infill in place and provides consistent volume on the turf surface. These turfs therefore allow for more intensive use and provide a high level of availability. They also require less maintenance than straight filaments. This design means that infill splash (clouds of granules) is almost completely prevented. The use of dual-coloured filaments helps to improve turf appearance. Polytan PreciTex technology is used so that special filament cross-section designs (rhombus, triangle) can still be safely texturised. Safe texturing is particularly important for these multi-shape cross-sections in order to achieve a uniform surface for the turf. Furthermore, PreciTex also means that the degree of texturing can be varied in a regulated manner according to requirements. Another key factor when it comes to creating a uniform turf appearance and a perfectly functioning product



Texturised filaments

2.4 ENTANGLEMENT TECHNOLOGY

The patented ENTANGLEMENT technology brings together the free ends of the molecular chains in the turf fibre to form a three-dimensional shape. The otherwise uniformly oriented molecular chains are also cross-linked to create an additional non-directional molecular link in the filament. The benefits: improved abrasion protection and protection against UV ageing, no splaying of thinner fibre areas and improved strength in all stress zones. The PE formulation is nevertheless softer, giving even better touch and feel.



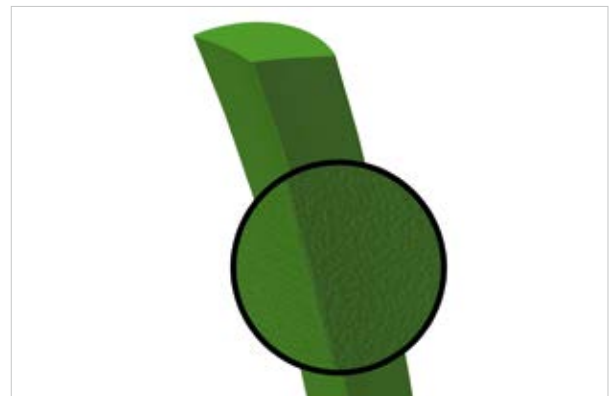
2.5 COOLPLUS FUNCTION

The Polytan CoolPlus function reflects the infrared (IR) radiation, which is invisible to the human eye, thanks to the reflective pigments contained in the master batch which are embedded on the surface of the filament using our special production technology. The CoolPlus function has been a tried and tested technology for many years and is used in the LigaTurf and Poligras synthetic turf systems. It effectively prevents the turfs from heating up excessively over the long term.



2.6 SHARKSKIN TECHNOLOGY

SharkSkin technology is available for the LigaTurf RS Pro II, RS+ and R product lines and ensures micro-roughness on the surface of the filament. This technology prevents the so-called „stick-slip“ effect on the skin. The skin does not stick to the fibres as it can glide over them. The benefits? Skin irritations are effectively prevented, the turf is no longer as blunt and often does not need to be irrigated in order to improve gliding properties. Further improvements have also been made to the way that the turf fibres are embedded in the base.



2.7 FILAMENT DESIGN

Fibre shape and special cross-section design pose a particular challenge when it comes to developing perfect filament. Engineers have to try to avoid stress points and possible fracture points in the fibre's shape. One of our most successful achievements has been the development of a rhombus-shaped fibre cross-section. Thanks to the uniform distribution of material and thickness, the filament is particularly stable and resilient and also has excellent shock absorption values, an improved capacity for recovery and reduced susceptibility to fibre breakage or splaying. Rhombus-shaped fibres are currently used in LigaTurf RS Pro II and RS+ and can be produced with a maximum fibre thickness of up to 400 µm.



3 SYNTHETIC TURF

The synthetic turf surface is the next most important component in Polytan's turf system. The filaments and backing come together to form the finished surface.

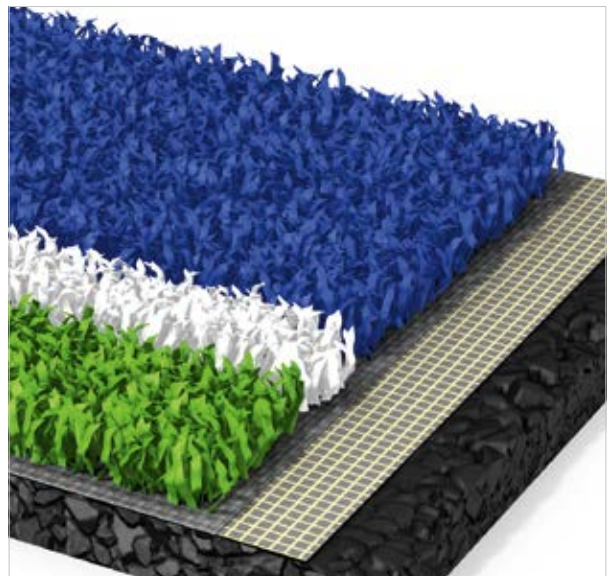
3.1 TURF SYSTEM

In addition to the filament options described above, the turf surface can also be configured especially for the purpose in question. The most important properties for this process are the length and number of filaments per square metre as this is what defines the turf's thickness and pile height. When combined with the ACS system, Polytan prefers to use shorter filaments as these enable newly-produced infill materials to be used. This means that the entire turf system is not affected by financial constraints but instead can be adapted especially to the sports and users with Polytan system technology.

The following technology can be used in the turf system:

3.2 MULTIBACK TECHNOLOGY

With Polytan MultiBack technology, an additional textile secondary backing is added to the existing double backing fabric during the production of the synthetic turf as an additional layer of fabric in a separate operation carried out during coating. The textile secondary backing is neatly bonded to the existing backing construction and cured, without becoming fragile or brittle. When used for hockey pitches, it provides high tensile strength and dimensional stability in all directions, thus guaranteeing a perfectly level playing surface in all weathers and temperatures. When used for indoor playing surfaces, the textile secondary backing stops the turf sections from "moving about", thus avoiding the risk of undulations and tripping. Polytan MultiBack technology is available for all types of turf and is mainly used for hockey turf (unfilled) and turf for indoor use.



3.3 CROSS

Here at Polytan, the term cross turf refers to an unfilled turf system that doesn't use sand or rubber granules to stabilise the filaments. In order to achieve a high level of strength, the turf has a high number of filaments, normally using texturised filaments to create a type of root zone and straight filaments to simulate the stems of turf. This type of turf design can be a good option for installing artificial turf on playing fields that are subject to less extreme use and cannot be maintained on a regular basis.



4 INFILL GRANULES

Polytan offers synthetic turf systems filled with sand and rubber granules, or just sand depending on the intended purpose and turf style. The elastic infill granules are an extremely important component in systems for football pitches in particular, as only the granules provide the authentic feeling of playing in cleats. They give players the necessary grip and adequate traction when changing speed or direction as well as providing realistic ball rolling behaviour and offering added protection against injuries. No matter what time of year it is or what the weather is like.

We are always on the look-out for even better solutions for our customers. So when it comes to infill, we focus primarily on different types of EPDM. The type of rubber specially designed for our Polytan systems is the ideal solution for stable infill: extremely weather and moisture-resistant, ozone-resistant and insensitive to temperature fluctuations and peaks.

Polytan prefers the following types of infill granules:

4.1 BIONIC FIBRE

All organic structures and life forms follow the same principle: They are irregular which is what makes them look so natural. Nature has produced some wonderful creations that are pleasing to everyone's eye. Our Bionic Fibre infill is inspired by nature, translating this idea into an innovative form of plastic technology. This concept is clearing the path for a new generation of synthetic turfs that come even closer to natural turf while still guaranteeing maximum durability. Using an organic material, Bionic Fibre infill combines the countless benefits of natural materials with the long-lasting security of tried-and-tested, cross-linked EPDM interspersed granules.



4.2 EPDM

The cross-linking (sulphur cross-linking) is especially stable and the material properties have been refined to make the EPDM ST high-performance infill particularly impressive. What's more, the infill is odourless and can be equipped with the CoolPlus function. For example, we distribute grain sizes carefully to create a natural appearance while also guaranteeing that the turf stays dust-free. Particularly resistant to abrasion, the material is also very colour-stable, does not heat up as much in summer and keeps its elasticity in colder weather. EPDM materials are also suited to indoor use and are available with flame retardant properties (cfl-s1).



At the customer's request, conventional SBR, RPU and natural infill materials (like cork) can also be used for Polytan synthetic turf systems.



STRAIGHT FILAMENTS

LigaTurf RS Pro II CoolPlus

★★★★★



FOOTBALL

PLAY LIKE THE PROFESSIONALS

LigaTurf RS Pro II is the new elite product for professional football turf systems. Thanks to its intelligent yarn design and exclusive material composition, it is in a league of its own when it comes to both playing qualities and wear resistance. Our innovative ENTANGLEMENT technology helps to ensure that the filament remains soft despite the larger cross-section thickness, while also providing excellent protection against wear and tear. The reduced aspect ratio ensures outstanding recovery capacity and makes the turf easier to maintain. The natural feel of the playing surface therefore lasts even longer without you needing to carry out any added maintenance work. The wide, two-tone filaments improve both the appearance and coverage of the turf while also keeping the level of splash to a minimum.

AREAS OF USE

- Stadiums
- Professional training grounds
- Amateur and professional clubs
- Sports colleges

PRODUCT SPECIFICATIONS

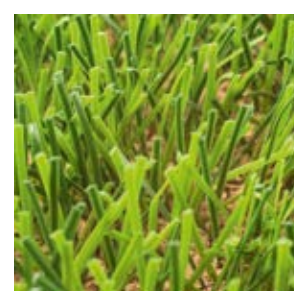
- Monofilament turf fibres with approx. 400 µm fibre thickness
- Exclusive Polytan CoolPlus function
- Innovative Polytan ENTANGLEMENT technology
- Finely tuned cross-section design



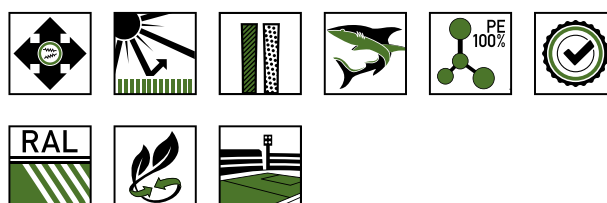
System structure



Fibre thickness: approx. 400 µm



Infill granules



STRAIGHT FILAMENTS

LigaTurf RS+ CoolPlus WorldCup Edition



FOOTBALL ▪ RUGBY ▪ AMERICAN FOOTBALL

SUCCESSFULLY TESTED BY PROFESSIONALS

The LigaTurf RS+ CoolPlus WorldCup Edition synthetic turf system has been successfully used around the world for many years and is preferred by professional and amateur athletes alike. The rhombus-shaped design of the turf fibre with a thickness of approx. 360 µm, combined with the ENTANGLEMENT technology, easily satisfies the technical requirements for force absorption, ball rolling and ball bouncing properties. And it will continue to do so for many years to come. Often copied but never equalled: LigaTurf RS+ CoolPlus WorldCup Edition is the world's leading product with FIFA Recommended 2 Star certification. As is the case with all Polytan football turf systems, this new raw material formulation is also environmentally friendly and completely harmless in ecotoxicological terms. The turf's natural appearance comes from the combination of six light green and six dark green filaments in one tuft. This version of the LigaTurf RS+ CoolPlus WorldCup Edition was the surface of choice for the players taking part in the Women's World Cup in Canada and was even used as the FIFA 2 Star Recommended pitch for the world cup final at the BC Place stadium in Vancouver.

AREAS OF USE

- Stadiums
- Professional training facilities
- Amateur and professional clubs
- Sports colleges

PRODUCT SPECIFICATIONS

- Monofilament turf fibres with approx. 360 µm Fibre thickness
- Exclusive Polytan CoolPlus function
- Innovative Polytan ENTANGLEMENT technology
- Exclusive Polytan 100 % PE formulation
- BiColour design



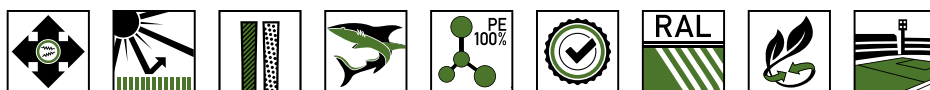
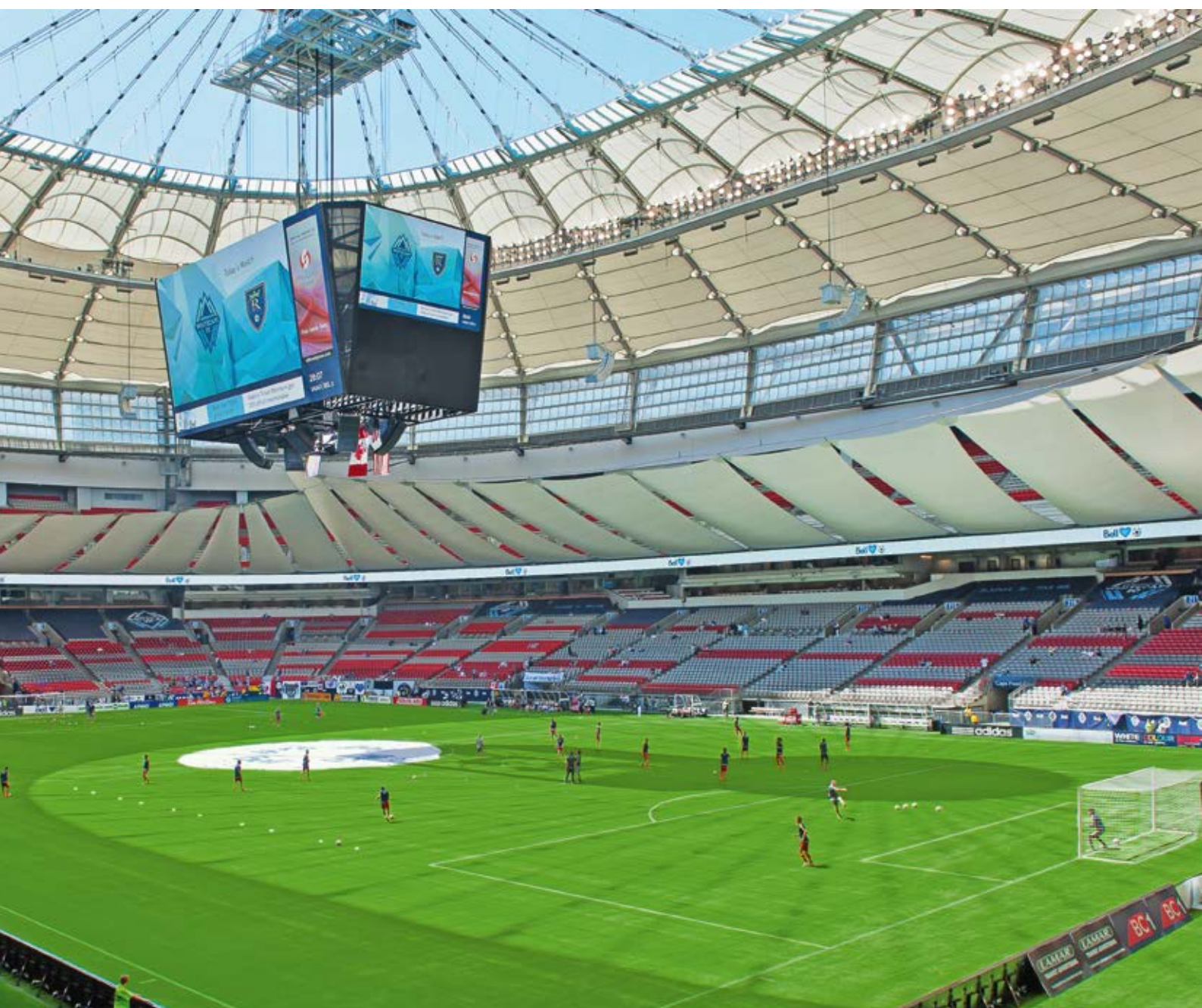
System structure



Fibre thickness: approx. 360 µm



Infill granules



BC Place Stadium,
Vancouver, Canada
LigaTurf RS+ CoolPlus

STRAIGHT FILAMENTS

LigaTurf R CoolPlus



FOOTBALL ▪ AMERICAN FOOTBALL

THE PROFESSIONAL FOOTBALL TURF FOR CLUBS

LigaTurf R CoolPlus is ideally suited to the high requirements of professionals and amateurs. Derived from the successful LigaTurf RS+, LigaTurf R has the same raw material composition thus ensuring that the level of wear protection and stability of the filament are sufficient to meet the most exacting requirements. The high-quality PE formulation and the specially designed shape give it an excellent rebound capacity. The rounded edges of the fibre shape ensure that it looks perfect, is pleasant to the touch and has excellent grip.

AREAS OF USE

- Professional training facilities
- Amateur and professional clubs
- Sports colleges

PRODUCT SPECIFICATIONS

- Monofilament turf fibres with approx. 300 µm Fibre thickness
- Exclusive Polytan CoolPlus function
- Innovative Polytan ENTANGLEMENT technology
- Exclusive Polytan 100 % PE formulation



System structure



Fibre thickness: approx. 300 µm



Infill granules



Moers Sports Ground,
Moers, Germany
LigaTurf R CoolPlus

STRAIGHT FILAMENTS

LigaTurf Ultimate CoolPlus



FOOTBALL ■ RUGBY ■ AMERICAN FOOTBALL ■
HOCKEY ■ MULTISPORT

FOR THE ULTIMATE KICK

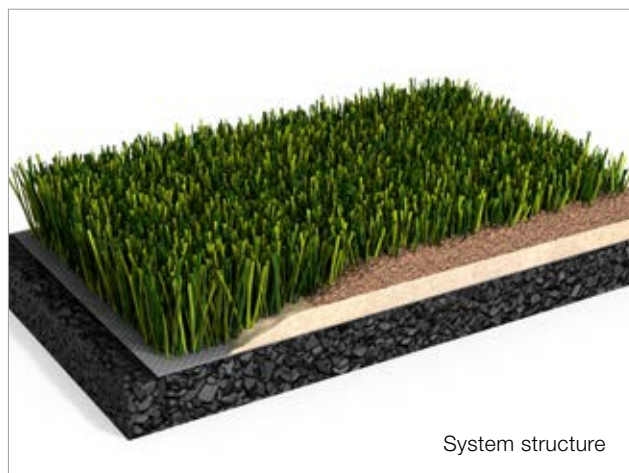
LigaTurf Ultimate CoolPlus is the “ultimate” refinement of Polytan LigaTurf football turf now being used successfully around the world. Ultimate CoolPlus is a completely new development and is even better than its predecessor. Ultimate look. Ultimate feel. Ultimate longevity. Thanks to its innovative ENTANGLEMENT technology and CoolPlus function, LigaTurf Ultimate CoolPlus provides the ultimate feeling of playing on natural grass. With a triangular cross-section and a thickness of approx. 250 µm, the fibres are also exceedingly pleasant to the touch. LigaTurf Ultimate comes in a bicolour colour combination of lime and field green.

AREAS OF USE

- Training facilities
- Amateur and professional clubs
- Sports colleges

PRODUCT SPECIFICATIONS

- Monofilament turf fibres with approx. 250 µm Fibre thickness
- Exclusive Polytan CoolPlus function
- Innovative Polytan ENTANGLEMENT technology
- Exclusive Polytan 100 % PE formulation
- BiColour colour combination



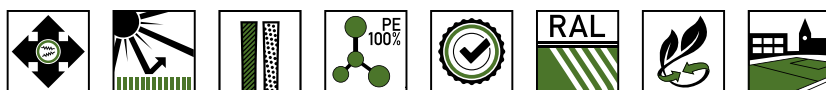
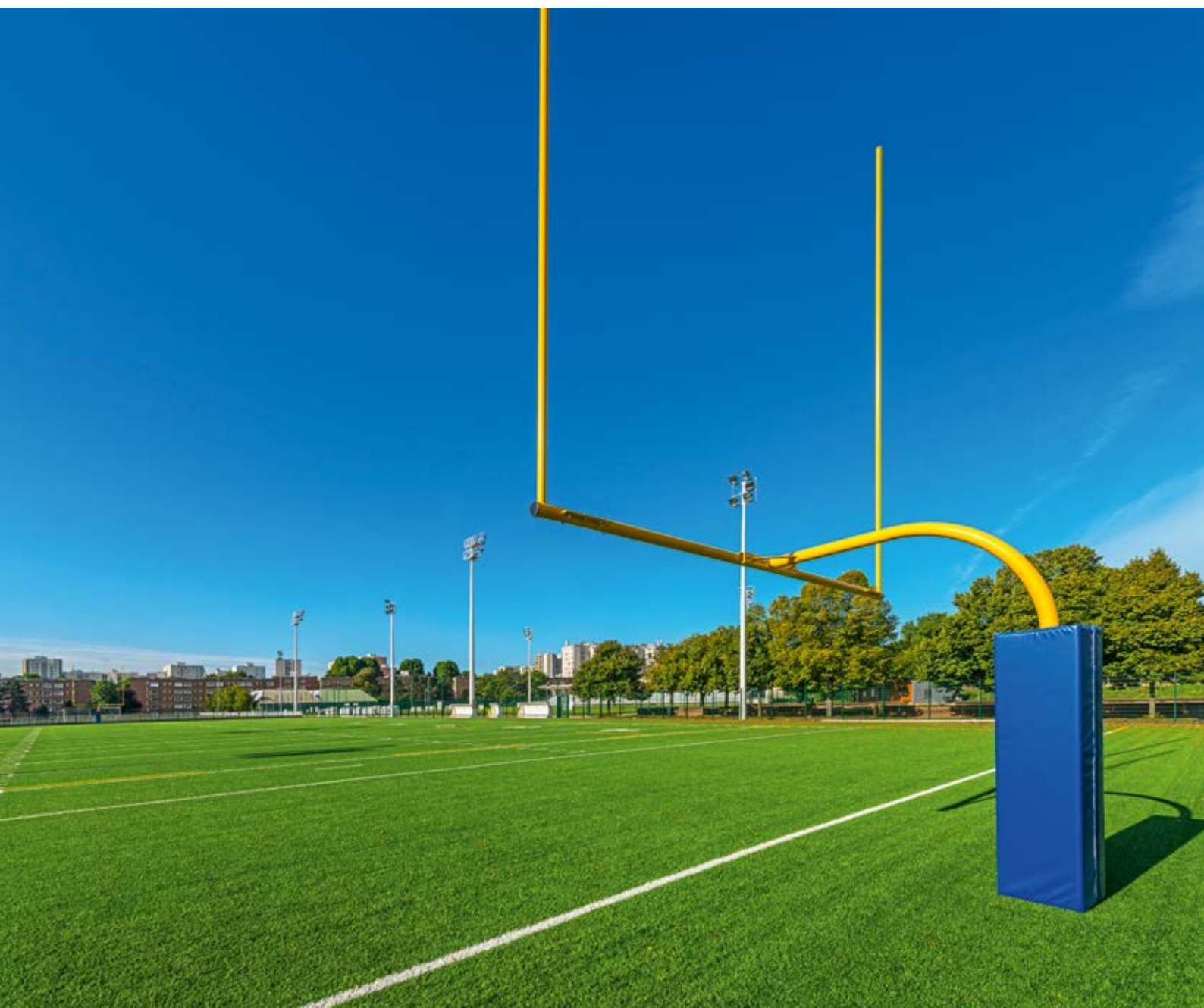
System structure



Fibre thickness: approx. 250 µm



Infill granules



Parc des Sports Auguste-Delaune,
Saint Denis, France
LigaTurf Ultimate CoolPlus

TEXTURISED FILAMENTS

LigaGrass Pro CoolPlus



FOOTBALL ▪ HOCKEY ▪ MULTISPORT

REDEFINING TEXTURISED TURF!

Polytan is quite rightly regarded as a pioneer in developing textured turf systems for football pitches. With the new LigaGrass Pro CoolPlus, we are marking another milestone in the successful history of our company. After all, thanks to the new Polytan PreciTex texturing technology, even functional filament cross-sections with a thickness of up to 250 µm can now be processed easily. Compare this to other turfs and you'll see that the new LigaGrass Pro turf is a no-splash turf like no other. The infill is carefully secured between the blades to prevent the granules and infill material from jumping up. This guarantees a more enjoyable playing experience, prevents the infill material from being displaced and makes the turf easier to maintain. In terms of its functions and performance, LigaGrass Pro CoolPlus sets a new benchmark for the world of textured football turf systems.

AREAS OF USE

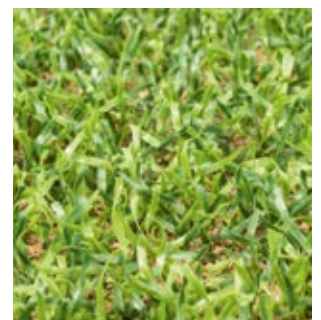
- Training facilities
- Amateur clubs
- Mini-pitches
- Multi-sport facilities
- School sports facilities

PRODUCT SPECIFICATIONS

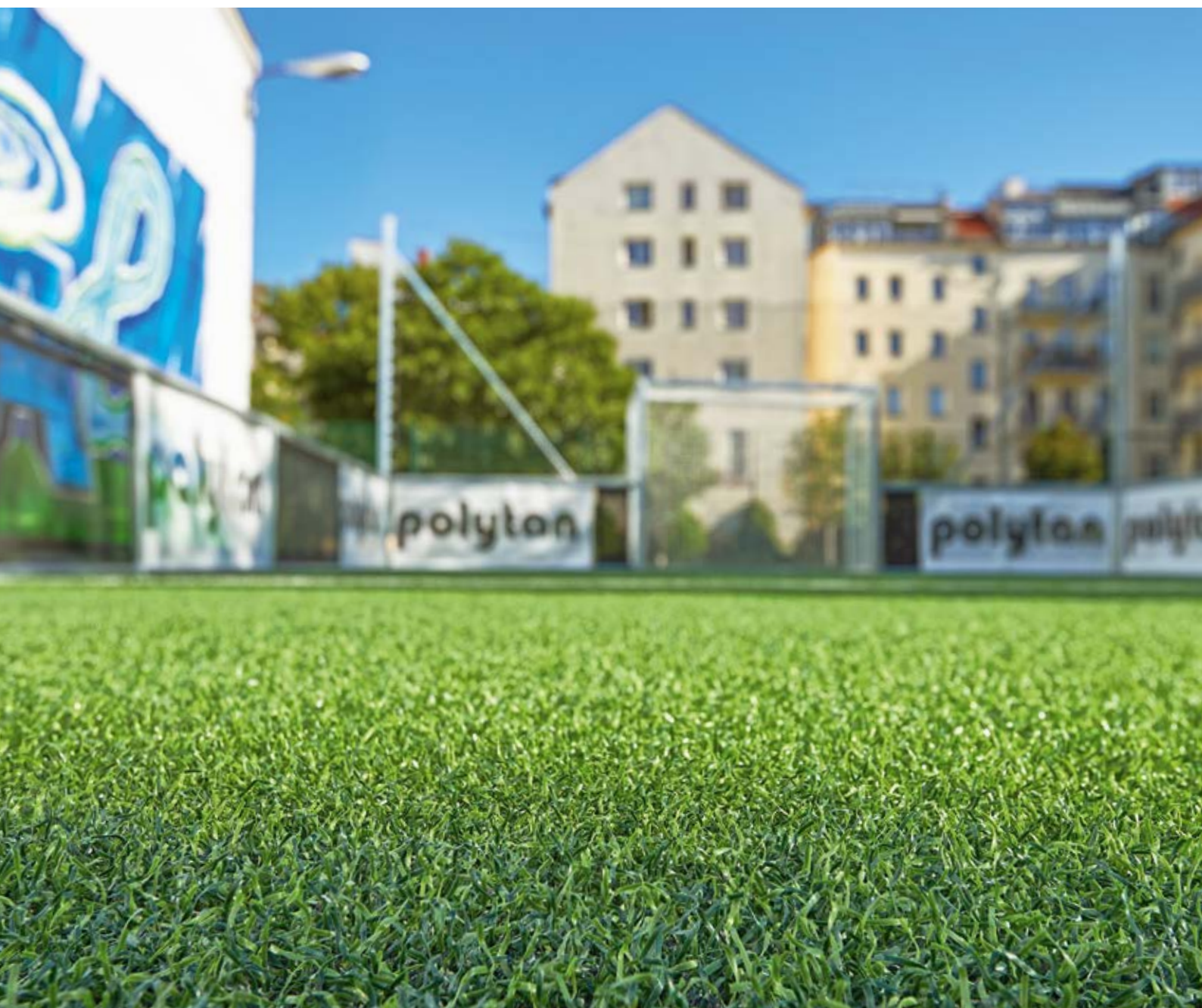
- Monofilament turf fibres with approx. 250 µm fibre thickness
- Exclusive Polytan 100 % PE formulation
- Exclusive Polytan PreciTex texturing technology
- BiColour design



Fibre thickness: approx. 250 µm



Infill granules



Grundschule am Koppenplatz,
Berlin, Germany
LigaGrass Pro CoolPlus

TEXTURISED FILAMENTS

TerraGrass



HOCKEY ■ TENNIS ■ MULTISPORT

ROBUST, DURABLE, VERSATILE

Hockey and tennis are the favourite sports of the TerraGrass turf system. It can be individually optimised to the different types of sport according to the specification in each case. The material formulation consisting of 100 % PE has its own positive effect on longevity and protection against wear. The exclusive Polytan texturing process ensures additional volume, a green finish and the desired playing properties.

AREAS OF USE

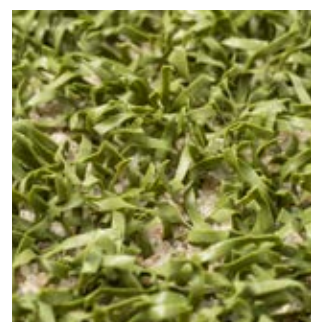
- Multisport facilities
- Tennis courts
- Miniature playing fields

PRODUCT SPECIFICATIONS

- Monofilament turf fibres with approx. 160 µm Fibre thickness
- Exclusive Polytan 100 % PE formulation
- Exclusive Polytan texturing process



Fibre thickness: approx. 160 µm



Infill granules



Concordia International School,
Shanghai, China
Polytan Turf

UNFILLED TURF

Poligras Platinum CoolPlus

★★★★★

HOCKEY

HOCKEYSPORT IN PERFECTION

Precision, speed, safety – the Poligras Platinum CoolPlus is setting new standards for hockey. Polytan has further improved its Poligras hockey turf, which has been tested to Olympic standards. Using a new texturing technique and a higher stitch density, it has created a grass surface that is ideal for quick, precise play.

The familiar Poligras Mega CoolPlus has been enhanced and made ready for series production in a close development partnership with international hockey players and coaches. For instance, the stitch density has been increased to create an even more compact appearance, while the new Polytan PreciTex texturing technology ensures optimum crimping. The result is a multidirectional closed surface that demonstrates unbeatable ball rolling behaviour. The ultra-closed surface also provides a perfect platform for the turf's CoolPlus function, which cools the surface and reduces water consumption.

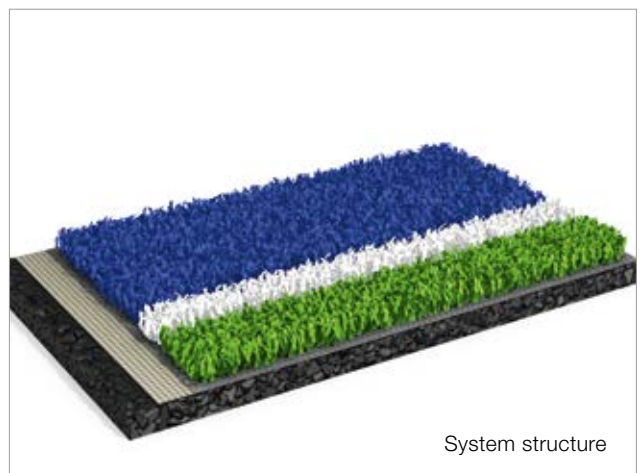
Both experts and international professional associations alike are impressed by Polytan's tried-and-tested quality. That's why Poligras Platinum has been selected as the official pitch for the hockey events at the 2016 Olympic Games in Rio.

AREAS OF USE

- Professional hockey facilities and stadiums
- Training grounds

PRODUCT SPECIFICATIONS

- Monofilament turf fibres with approx. 110 µm fibre thickness
- Exclusive Polytan CoolPlus function
- Exclusive Polytan PreciTex texturised process
- Exclusive Polytan 100% PE formulation with ENTANGLEMENT technology
- MultiBack backing construction



System structure



Fibre thickness: approx. 110 µm



UNFILLED TURF

Poligras Mega CoolPlus

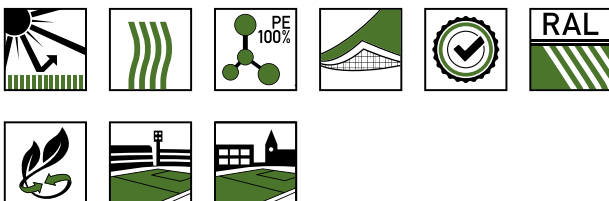
★★★★★



HOCKEY ■ MULTISPORT



Fibre thickness: approx. 100 µm



THE STANDARD FOR HOCKEY PITCHES

With Poligras Mega CoolPlus, Polytan has developed a fully synthetic turf system that meets all the requirements of a professional hockey pitch. It provides a dense and even surface which means that ball rolling behaviour is not distorted by directional factors, allowing players to play a fast and accurate game. The special texturing process preserves the exceptional volume and resilience of Poligras Mega CoolPlus. In spite of its robustness, the turf is extremely soft and feels pleasant to the skin. As a result, it is also used for football in multifunctional facilities. The Polytan CoolPlus function also ensures that the synthetic material does not heat up too quickly or excessively, even in strong sunlight. This also reduces water consumption. More than half of the clubs in the German hockey league rely on Poligras Mega CoolPlus. Just like all the hockey pitch products from Polytan it meets the international requirements of the International Hockey Federation (FIH).

AREAS OF USE

- Professional hockey facilities and stadiums
- Hockey pitches
- Multisport facilities

PRODUCT SPECIFICATIONS

- Monofilament turf fibres with approx. 100 µm Fibre thickness
- Exclusive Polytan CoolPlus function
- Exclusive Polytan 100 % PE formulation
- Exclusive Polytan texturing process
- MultiBack backing construction

FILLED TURF

Poligras Terra CoolPlus

★★★★★



HOCKEY ■ TENNIS ■ MULTISPORT

THE FUTURE OF SAND-FILLED MULTIPURPOSE TURF

Sand-filled Poligras Terra CoolPlus is suitable for tennis and hockey according to the filling volume or filling height in each case. Fine yet extremely strong filaments ensure a level of surface softness previously unheard of for textured products. The CoolPlus filaments absorb most of the IR radiation which has a positive effect on reducing the surface temperature of the turf. However, Poligras Terra CoolPlus offers a closed turf surface while the high density of the filaments ensures the perfect impression of colour. The right product can be chosen from a wide range of colours depending on the intended use in each case.

AREAS OF USE

- Turf for clubs
- School sports facilities
- Multisport facilities

PRODUCT SPECIFICATIONS

- Monofilament turf fibres with approx. 100 µm Fibre thickness
- Exclusive Polytan CoolPlus function
- Exclusive Polytan 100 % PE formulation
- Exclusive Polytan texturing process



System structure



Fibre thickness: approx. 100 µm



Infill granules



SYNTHETIC SURFACES

THE BEST BASIS FOR SPORTING ACHIEVEMENTS



	COMPETITION/ STADIUM	TRAINING	MULTIPURPOSE/ SCHOOL SPORTS	SOFT IMPACT	
Polytan PUR/PUR Gold	■	■			Waterproof
Polytan PUR E	■	■			
Polytan M	■	■	■		
Polytan WS	■	■	■		Water-permeable
Polytan SES/SL					
Polytan WSS	■	■	■		
Polytan S/SE			■		
Polytan Re-Topping Systeme	■	■	■		Water-permeable and waterproof
Polytan FS				■	Water-permeable
Polytan FS Nature				■	Water-permeable with synthetic turf surface
Polytan FS Play				■	
Polytan Gym	■	■	■		Point elastic, area elastic, combined elastic



TESTED AND CERTIFIED

EN 14877 / DIN 18035-6

By carrying out inspections in accordance with EN 14877, we are able to make sure that our products meet the requirements for a top sporting performance, achieve the right level of athlete/surface interaction, and are suitable for their intended purpose. This standard is supplemented by DIN 18035-6, which governs requirements for the sub-structure and environmental compatibility tests



EN 1177

All of our soft-impact surfaces meet the provisions set out in EN 1177, which defines requirements for shock-absorbent surface systems.

EN 71-3

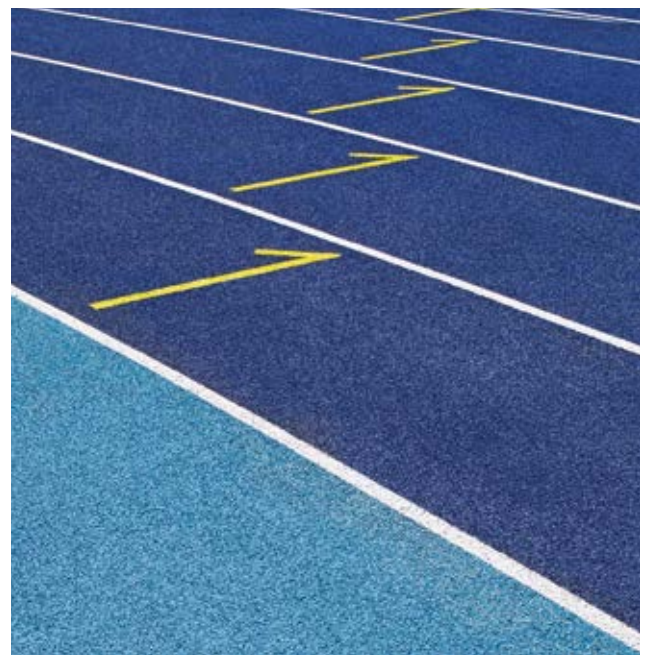
All Polytan surfaces are free from toxic substances and therefore comply with the criteria in EN 71-3 on toy safety. This means that any contact between a child and the surface is completely harmless, even if the child were to lick it.

All Polytan synthetic surfaces comply with the current national and international standards, including all environmental requirements. The consistent high quality of our surfaces is ensured by ongoing RAL quality assurance checks – the entire product range carries the requisite quality mark.



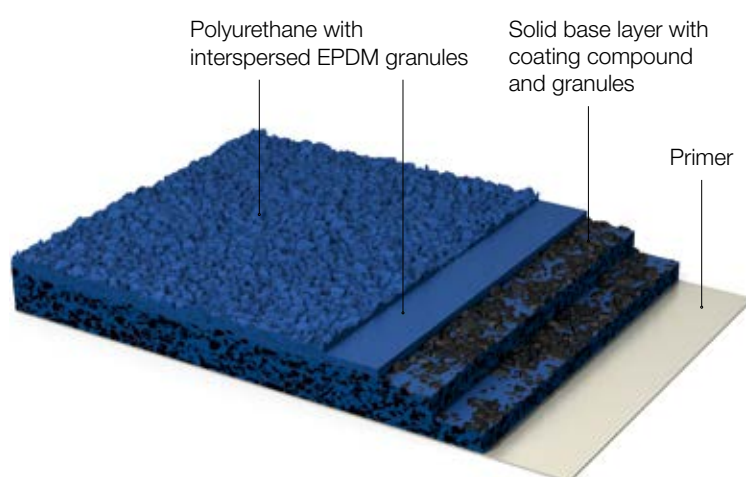
IAAF

Professional Polytan track surfaces are the ideal basis for a top performance. That is why we offer customers a range of products that have been specially tested and can therefore be certified for competitions according to the requirements of the International Association of Athletics Federations (IAAF).



LAYER BY LAYER TO CREATE THE PERFECT SYSTEM

Polytan synthetic surfaces impress with their optimum sport functional properties, high durability and long lifespan. This is made possible by the tried and tested Polytan system design which processes the various components in a solid design or a multilayer procedure to ideally match the surface to the desired purpose. We manufacture all the components such as the solid synthetic surface, base layer, top layer and bonding agents ourselves and they are installed in situ directly at your site by our own experts at classic outdoor sports facilities as well as indoors, e.g. in athletics arenas.



TOP PERFORMANCE: THE POURED SURFACE

This solid synthetic surface dispenses with the base layer and consists of a solid mixture of PUR and elastic rubber granules from the base to the top layer. Ready for top performances!

OPTIMISED SPORT FUNCTIONALITY: COATING

The final surface coating also consists of high-quality rubber granules. The coating's thickness as well as form, quantity and how the granules are interspersed play a crucial role in the sport-functional properties of the surface. The focus is placed on energy enhancement (running tracks), shock absorption (e.g. soft impact surface) or a combination of the two (e.g. multifunctional pitches) depending on the product.

FAST OR SOFT: BASE LAYER

The base layer consists of rubber granules and polyurethane bonding agents. It helps to make the surface elastic and is cast in a variety of designs and thicknesses. Thanks to the base layer, the synthetic surface ultimately achieves a specific level of shock absorption and provides extremely good conditions not only for all sporting disciplines but also for use as a soft impact surface in children's playgrounds.

PROFESSIONALLY SEAMLESS INSTALLATION

Polytan works with its own site management and installation teams worldwide to guarantee performance and durability of the surfaces. The in-situ installation method creates a completely seamless surface with consistently high performance characteristics.

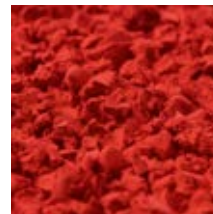
SHOW YOUR COLOURS



What has long been the norm for soft-impact surfaces at playgrounds is now becoming ever more common for running tracks, multi-purpose spaces and public areas: different colours. As a result, colourful combinations are no longer restricted to the exciting world of playground design, you will now find an increasing number of multi-coloured athletics tracks. From two-colour running tracks to colour-coordinated sectors – the design freedom afforded has barely begun to discover its limits. Alongside brick red running track surfaces, blue and green sports surfaces have become established in recent years. Thanks to its state-of-the-art UV-resistant formulations and innovative sealing processes, Polytan offers several colour tones in this area, including Hertha Blue and Reseda Green.

COMPETENCE IN EPDM

We are also always on the lookout for even better synthetic surface solutions for our customers. EPDM granules are ideally suited to meet the requirements of sports ground construction. Stable properties in respect of temperature stability, colour-fastness, UV stability, abrasion resistance and tensile strength are important factors in ensuring the longevity of a surface system. Polytan EPDM granules deliver record values in respect of these material properties and are also matched to the relevant requirements of the sport played. Coloured EPDM granules are used for running tracks, multifunctional playing fields and soft-impact systems. No matter where the material is used, it will always be exposed to large mechanical forces and extreme weather conditions. As a result, properties such as tensile strength, abrasion resistance and UV stability play a particularly important role. Special attention is also paid to the composite material since the ideal distribution of different grain sizes and adaptation to the bonding agents used help to make top layers made of EPDM material even more stable and particularly resilient. Various grain sizes and shapes are available according to the intended use in each case. In order to give planners and architects free rein to exercise their creativity, we offer a wide range of standard colours.



Chili red



Light grey



Sky blue



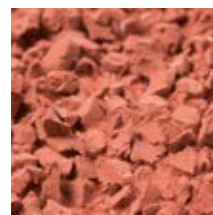
Blue/yellow



Hertha blue



Reseda green



Brick red



Orange/turquoise

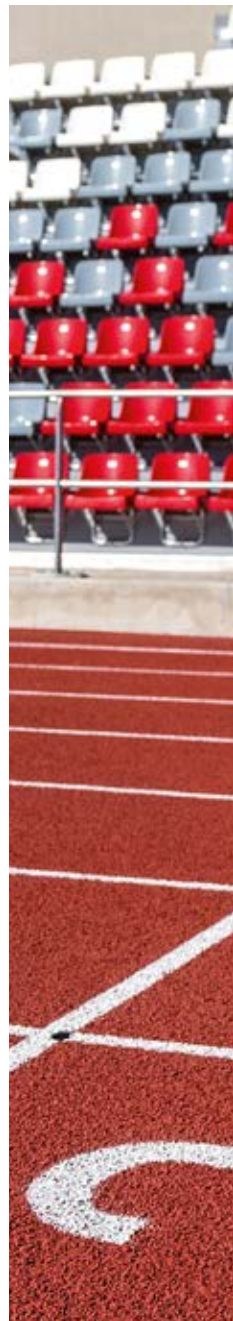


Multi-coloured



Spring green

SPECIAL COLOUR: POLYTAN CHILI RED





FOR SPORTS WITH ADDED SPICE

Polytan now offers architects and planners even more freedom for creativity thanks to the new and exclusive colour Chili Red, the hottest colour around! This powerful, brilliant red is available for selected Polytan synthetic surfaces and brings a glimmering shine to running tracks, school playgrounds, children's play areas and multi-purpose spaces alike. Chili Red offers a much brighter finish than brick red. Chili Red is available exclusively at Polytan.

BENEFITS

- Special colour for ambitious architectural projects
- Intensive, bright colour
- Long-lasting and colour-stable

FOR SYSTEMS WITH POURED SURFACES

- Polytan PUR: solid synthetic surface for records and fastest times in international elite sport
- Polytan M: poured surface with exceptional sports medical values for performance and competitive sports

FOR SYSTEMS WITH GRANULATED SURFACES

- Polytan S: durable all-round surface with smooth surface layer installed onto a base layer
- Polytan SE: multifunctional ability with smooth surface layer, ideal for ball sports
- Polytan FS: shock-absorbent surface for playgrounds and nurseries as a safe and clean solution for children

WATERPROOF

Polytan PUR/Polytan PUR Gold

★★★★★

COMPETITION/STADIUM ■ TRAINING

HIGH-SPEED SYNTHETIC SURFACES FOR TOP PERFORMANCES

Polytan PUR is a solid synthetic surface ideal for fastest times, records and international elite sport. Thanks to the combination of elastic base layer and solid structure, Polytan PUR Gold running track surfaces provide optimum conditions for professional athletes and demanding amateurs. This high-speed synthetic surface ensures maximum acceleration and perfect shock absorption values. The EPDM granules dispersed in the top layer make both sports surfaces ideal for running shoes with spikes and offer extremely high acceleration. Energy-enhancing tread elasticity and high abrasion resistance complete the properties of these elite surfaces.

AREAS OF USE

- Athletics stadiums
- Competitive running tracks

PROPERTIES

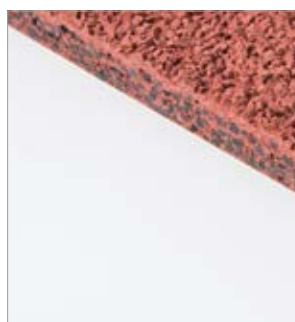
- PUR: Multilayer surface poured in situ (solid synthetic surface)
- PUR Gold: Combination surface consisting of a multilayer surface poured in situ and a levelling layer
- Granules with visible tips interspersed, ideally suited to spikes
- Waterproof
- Can be certified according to IAAF requirements



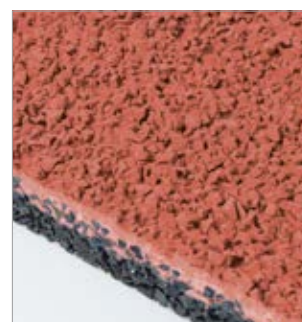
System structure PUR



System structure PUR Gold



Cross-section





Olympic Stadium,
Amsterdam, The Netherlands
Polytan PUR

WATERPROOF

Polytan PUR E

★★★★★

COMPETITION/STADIUM ■ TRAINING

THE PERFECT STAGE FOR INDOOR ATHLETICS

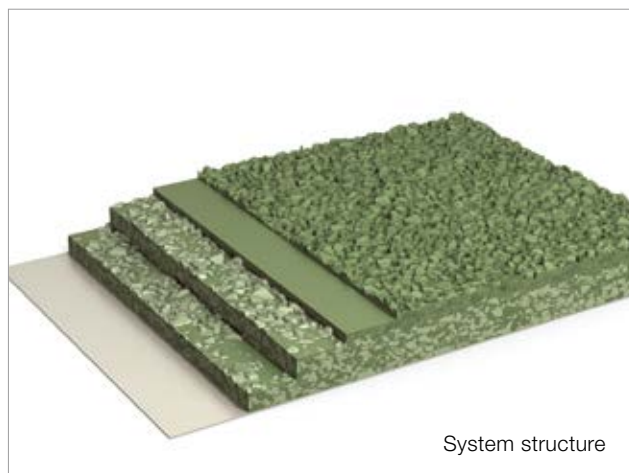
Polytan PUR E is a solid synthetic surface designed complete with high-quality EPDM granules and meets international requirements for use in halls. The sporting surface is ideal for use in indoor athletics halls and other surfaces used on a very regular basis for competitions and demanding training sessions. Thanks to its extremely high abrasion resistance and uniform structure, this system guarantees a long service life. Of course, Polytan PUR E can also be installed in open-air arenas that require a high level of abrasion resistance.

AREAS OF USE

- Indoor athletics facilities
- Athletics stadiums
- Competitive running tracks

PROPERTIES

- Poured in situ surface, multilayer (solid synthetic surface)
- Granules with visible tips interspersed, ideally suited to spikes
- Waterproof
- Can be certified according to IAAF requirements



Cross-section



Schwerin Indoor Athletics Hall,
Schwerin, Germany
Polytan PUR E

WATERPROOF

Polytan M

★★★★★

COMPETITION/STADIUM ■ TRAINING ■
MULTIPURPOSE/SCHOOL SPORTS

THE PROFESSIONAL CHOICE AMONG SPORTS SURFACES

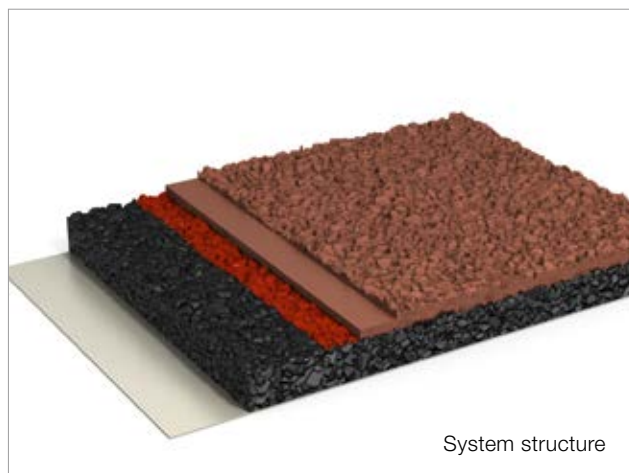
Fast with high damping properties and excellent values when it comes to sports medicine. These are all excellent prerequisites for performance and competitive sports in athletics facilities with running and run-up tracks. The Canadian, British and American track and field teams were recently able to experience these qualities for themselves when all three teams chose sports facilities with Polytan M surfaces as the venues for their final preparations for the 2012 Olympic Games in London. The Canadian athletes trained at the Kamen Kaiserau Sports Centre while the British athletes trained on the running track at Loughborough University in the UK and the American athletics team got into shape at the Alexander Stadium in Birmingham.

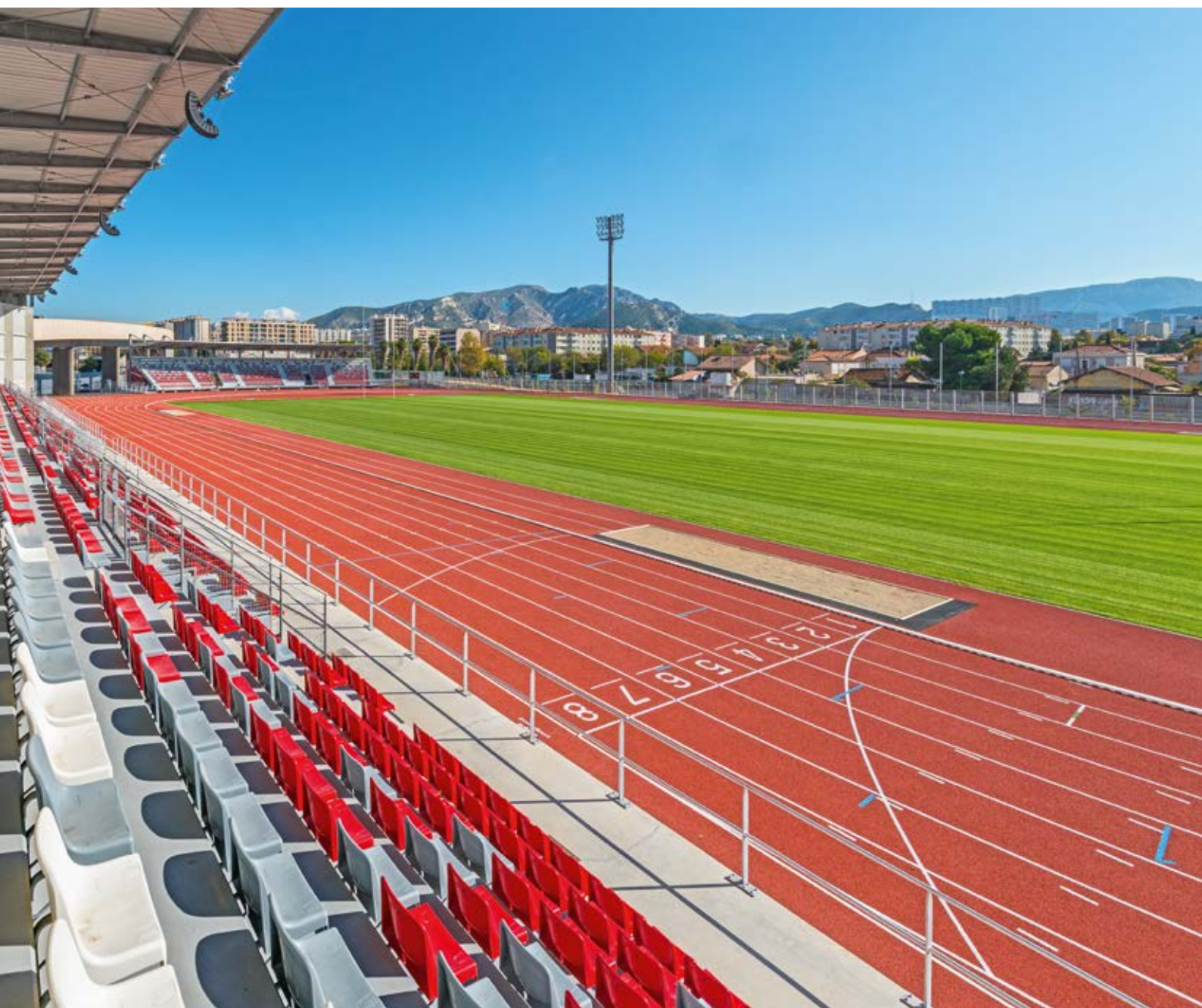
AREAS OF USE

- Athletics stadiums
- Competitive running tracks
- School sports facilities

PROPERTIES

- Poured surface
- Granules with visible tips interspersed, ideally suited to spikes
- Waterproof
- Can be certified according to IAAF requirements





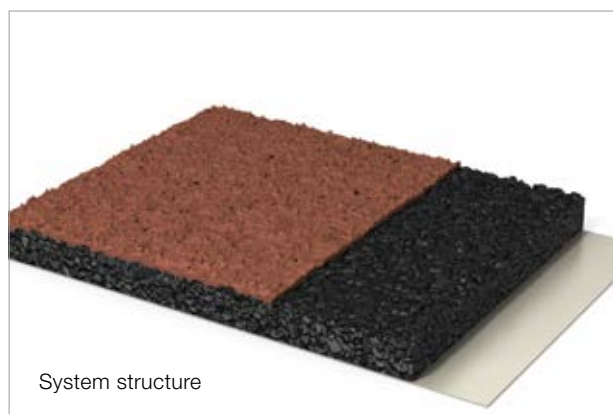
Stade Delort,
Marseille, France
Polytan M

WATER-PERMEABLE

Polytan WSS



COMPETITION/STADIUM ■ TRAINING ■ MULTIPURPOSE/SCHOOL SPORTS



System structure



Cross-section

THE ALL-ROUNDER FOR PROFESSIONAL REQUIREMENTS

The water-permeable surface for professional requirements. If the construction of a waterproof surface within a stadium or training facility is prevented by local conditions or other circumstances, the WSS surface is the ideal compromise. It offers a structured surface which is indispensable for professional athletes during training. Another benefit offered by Polytan WSS is its water-permeable structure which allows the surface water to drain off not just via the surface of the running track but also vertically. The high-quality raw materials and bonding agents as well as the increased thickness of the coating ensure a long lifespan and a high level of durability.

AREAS OF USE

- Athletics stadiums
- Competitive running tracks
- School sports facilities
- Multipurpose facilities

PROPERTIES

- Structure-coated surface with thick top layer
- Rubber granules and elastomer, spray-coated
- Water-permeable



WATER-PERMEABLE

Polytan SES/Polytan SL

★★★★★



COMPETITION/STADIUM ■ TRAINING ■ MULTIPURPOSE/SCHOOL SPORTS

THE ALL-ROUNDER FOR BUSY SPORTS FACILITIES

Polytan SES and SL are water-permeable, structured surfaces for professional athletics training facilities. In the SES system, the base layer is designed using coloured EDPM so that it matches the colour scheme for the structure coating. The surface is primarily used for running tracks, run-up tracks and athletics facilities. In contrast, Polytan SL is a triple layer surface where the middle layer matches the colour of the structure coating. It is primarily used for stress zones on running and run-up tracks and athletics facilities. The high-quality raw materials and system construction used in both synthetic surfaces guarantee a long-lasting, visually-appealing surface. The surface is very quick and easy to install.

AREAS OF USE

- Athletics stadiums
- Competitive running tracks
- School sports facilities
- Multi-purpose facilities

PROPERTIES

- Structural spray-coated surface
- Rubber granulate and elastomer compound, spray-coated
- SES: Colour-coordinated base layer
- SL: Colour-coordinated middle layer
- Water-permeable



System structure SES



System structure SL



Cross-section



WATER-PERMEABLE

Polytan WS



COMPETITION/STADIUM ■ TRAINING ■
MULTIPURPOSE/SCHOOL SPORTS

THE ALL-ROUNDER FOR COMPETITION AND TRAINING FACILITIES

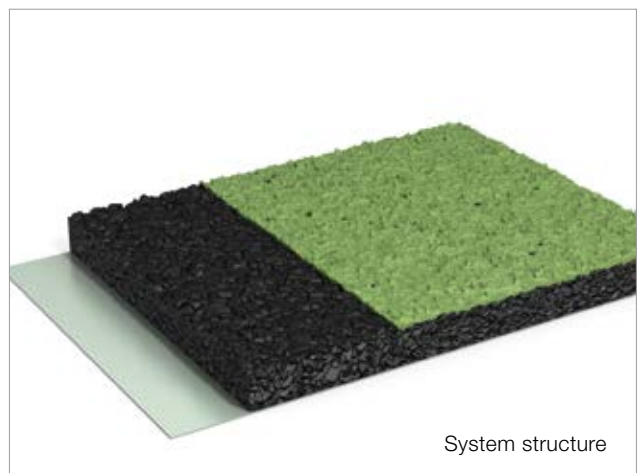
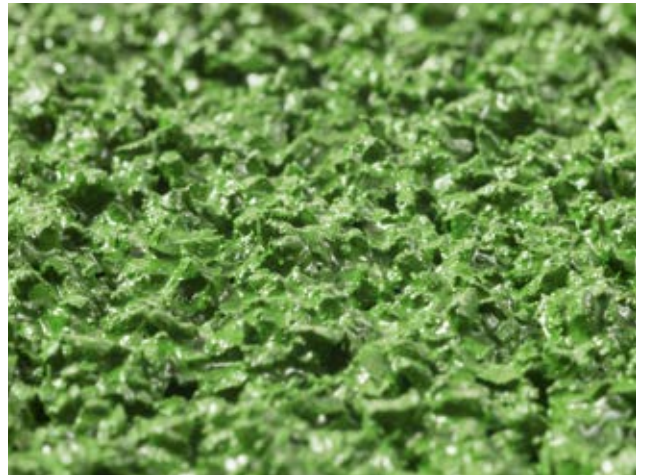
The Polytan WS synthetic surface is the cost-effective all-round solution for athletics. The structure-coated surface is primarily used for running tracks, run-up tracks and athletics facilities. Together with the WSS surface from the Polytan range, it has a structured surface that is also water-permeable, allowing for easy and fast installation.

AREAS OF USE

- Athletics stadiums
- Competitive running tracks
- School sports facilities

PROPERTIES

- Structure-coated surface
- Rubber granules, elastomer, spray-coated
- Water-permeable
- Can be certified according to IAAF requirements



System structure



Cross-section



Gymnasium Grünwald,
Grünwald, Germany
Polytan WS

WATER-PERMEABLE

Polytan S/Polytan SE

MULTIPURPOSE/SCHOOL SPORTS

THE MULTIFUNCTIONAL TALENT WITH A SMOOTH SURFACE

The durable all-round Polytan S and SE surfaces are primarily used for playing fields and facilities for ball sports and leisure activities. Their smooth surface and good ball bouncing behaviour make them the ideal surface for ball sports in schools and multi-purpose facilities. Polytan S and SE are water-permeable so that the playing areas dry out very quickly, making them suitable for year-round use as all-weather pitches. Despite the flat top layer, they are slip-resistant. Additional advantages include the high level of wear resistance and low maintenance costs. While Polytan S is laid on a base layer, SE is a single-layer surface.

AREAS OF USE

- Multipurpose facilities
- School sports facilities
- Jogging trails
- Parks for the elderly
- Rehab facilities

PROPERTIES

- Granulated single- (SE) or double-layer (S) surface
- Bound granules, flat-laid
- Water-permeable



System structure SE



System structure S



Cross-section





Grundschule am Arnulfpark,
Munich, Germany
Polytan S/Polytan SE

WATERPROOF / WATER-PERMEABLE

Re-Topping-Systems

★★★★★

COMPETITION/STADIUM ■ TRAINING ■
MULTIPURPOSE/SCHOOL SPORTS

OLD RUNNING TRACKS GIVEN THEIR SPLENDOUR BACK!

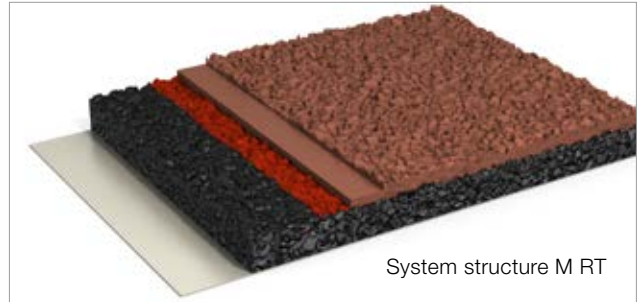
Water-permeable surfaces as well as water-impermeable surfaces can be provided thanks to the Polytan re-topping systems. Polytan re-topping systems are a very economical solution for refurbishing athletics tracks and sports facilities as the existing elastic substructures can be used again, meaning they are used over the long term and do not need to be disposed of. As a result, installation on the old surface is independent of the design of the initial installation, whether for in-situ surfaces or prefabricated track products. All re-topping surfaces have structured surfaces and are suitable for spikes, offering the optimal subsurface for professional applications. Polytan's re-topping systems are frequently installed prior to IAAF competitions and are certified according to IAAF requirements.

AREAS OF USE

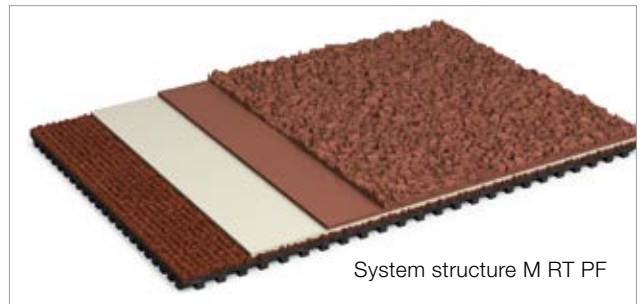
- Athletics stadiums
- Competitive running tracks
- School sports facilities

PROPERTIES

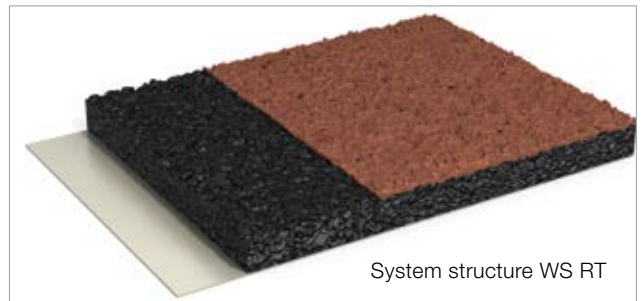
- Professional physical and visual upgrade of the sports surface
- Minimal installation time
- Reduced costs – no asphalt work, no disposal of the old surface
- Independent of the manufacturer of the existing old surface
- IAAF certification ensuring suitability for competitions is possible



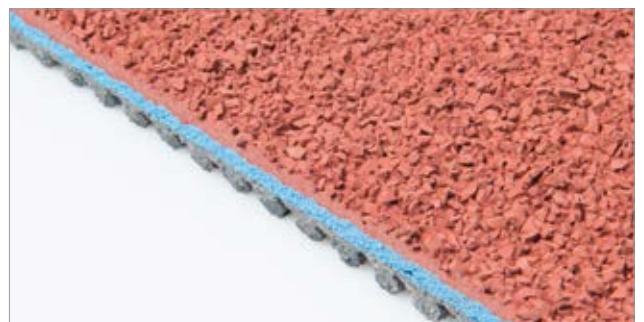
System structure M RT



System structure M RT PF



System structure WS RT



Cross-section M RT PF



University Of Aeronautics And Astronautic,
Beijing, China
Polytan Re-Topping System

WATER-PERMEABLE

Polytan FS

SOFT IMPACT

THE SAFE AND SOUND SOLUTION FOR OUR CHILDREN

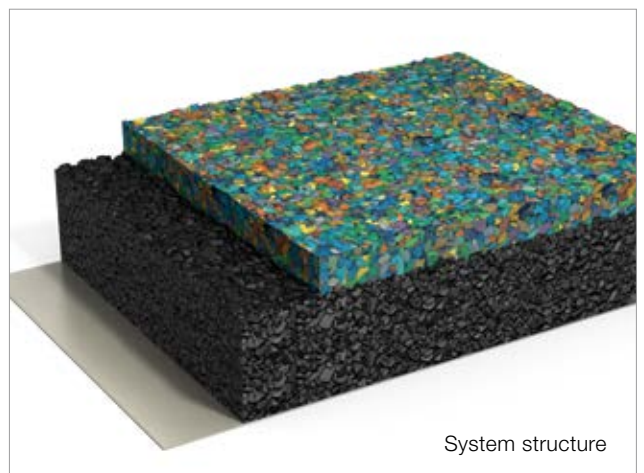
Polytan FS (soft impact surface) is primarily used in playgrounds and kindergartens as a shock-absorbing surface in a variety of thicknesses. The granulated, water-permeable surface is particularly easy to maintain and thanks to its damping effect, it protects small children against injuries if they fall over, for example. Its ideal resistance to weather and rotting ensures a long lifespan and low maintenance costs. Compared to sandpits, soft impact surfaces are a considerably more hygienic and above all safe solution.

AREAS OF USE

- Playgrounds
- Kindergartens
- Recreational parks
- Parks for the elderly
- Rehab facilities

PROPERTIES

- Granulated surface
- Bound coloured granules, flat-laid
- Water-permeable
- Various colours available
- HIC-tested according to DIN EN 1177 and ASTM F1292-09 (Sports Standards and Recreation Standards)



System structure



Cross-section



„Kinderplanet“ Heimbach-Weis Playgroup
Neuwied, Germany
Polytan FS

WATER-PERMEABLE

Polytan FS Nature / Polytan FS Play



SOFT IMPACT



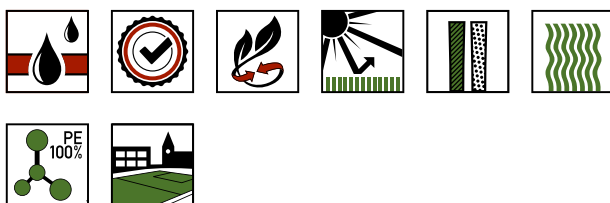
System structure FS Nature



System structure FS Play



Cross-section



REDEFINING SOFT-IMPACT SURFACES

Whether you want a natural look or a playful colour scheme, Polytan FS Nature and FS Play offer architects and planners a myriad of design options for play areas, educational facilities, adventure playgrounds and landscaping. With these products, Polytan is expanding its range of soft-impact surfaces. Both products feature a texturised artificial turf surface.

AREAS OF USE

- Playgrounds
- Kindergartens
- Rehab facilities
- Landscaping

PROPERTIES

Polytan FS Nature:

- BiColour design

Polytan FS Play:

- Available in green and blue
- Inlays such as hopscotch or picture elements available on request

Polytan FS Nature / FS Play:

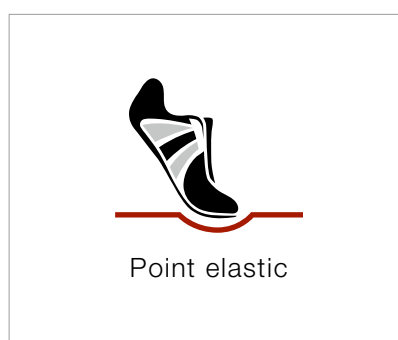
- Exclusive Polytan 100% PE formulation
- Exclusive Polytan CoolPlus function
- Natural look
- Water-permeable
- HIC-tested according to DIN EN 1177



INDOOR SYSTEMS IN ACCORDANCE WITH EN 14904

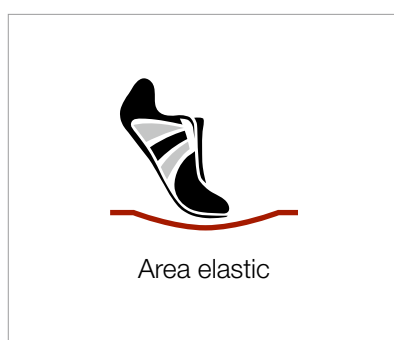
TYPE OF FACILITY	TYPE OF SPORT		POINT	AREA	COMBI
MULTI-PURPOSE HALLS	Events, concerts		■ **	■■■	■
	Grandstand facilities, seating		■ **	■■■	■
	Wheelchair users		-	■■■	-
SPORTS HALLS	AMATEUR AND RECREATIONAL SPORTS	Multisport	■■■	■	■■
	PROFESSIONAL SPORTS	Volleyball	■■■	■■	■■
		Handball	■■■	■■	■■
		Basketball	■	■■■	■■
		Football	■■	■	■■■
		Hockey	■■	■■	■■■
		Callisthenics/aerobics	■■■	-	■■
		Competitive dancing	-	■■■	-
		Skate sports	-	■■■	-
		Gymnastics	■■	■■	■■■
		Martial arts	■■	■■	■■■

- not suitable ■ limited suitability ■■ well-suited ■■■ exceptionally well-suited ** Only usable in multi-purpose halls with additional fabric reinforcement.



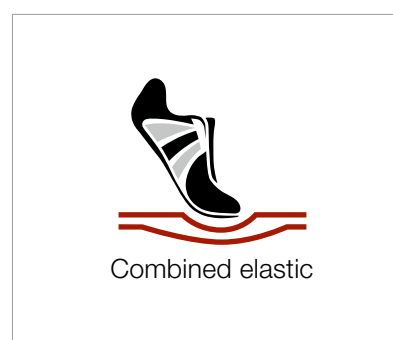
POLYTAN GYM POINT

Flexible, yielding sports floor with vertical deformation that closely fits the area of the load.



POLYTAN GYM AREA

Flexible, rigid sports floor with wide area of vertical deformation.



POLYTAN GYM COMBI

Area elastic sports floor with point elastictop layer. Vertical deformation in the section with the load dispersion layer is large. On the surface, it closely fits the area of the load.

Polytan GYM Point



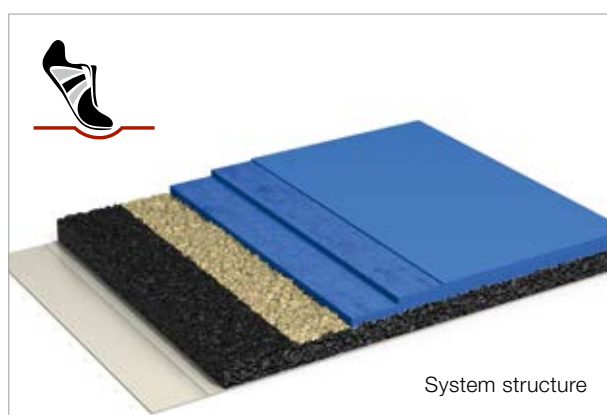
The point elastic sports floor is a flexible, yielding floor that is particularly well-suited for amateur and recreational sports. The soft surface cushions falls immediately. In addition, the point elastic layers only require a small mass to exhibit their shock-absorbing effect. This plays a particularly important role in children's and school sports if the athlete is relatively light. Thanks to the simple design of the elastic layer and PUR wear surface, Polytan GYM Point can be installed quickly and easily and is more cost-effective when compared to wooden sports floors. The surface is extremely resistant to both mechanical influences and liquids. The elastic layer is moisture-resistant and maintains its shock-absorbing properties even after many years of use. Simple maintenance of the seamless surfaces completes the system.

AREAS OF APPLICATION

- School and recreational sports
- Types of sports with a greater need for a protective function, e.g. handball or volleyball

PRODUCT SPECIFICATIONS

- Seamless surface
- Soft, point elastic surface
- Can be certified according to international sports association requirements

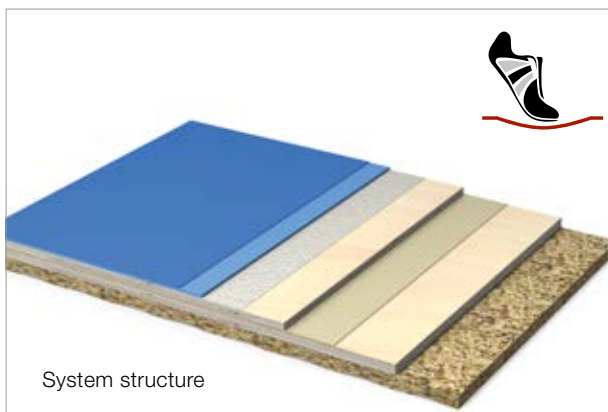


Cross-section



AREA ELASTIC

Polytan GYM Area



Cross-section

Polytan GYM Area is a true high-performance sport floor that is suitable for multi-purpose use by adult athletes. This area elastic indoor surface offers very high shock-absorption. Quick turning, running and jumping movements are cushioned across a broad area. When force is exerted on the surface, it creates a vertical depression across a wide area around the point of impact. In the process, the foot does not sink into the point of rotation and is not slowed down too quickly. In addition, Polytan GYM Area ensures more freedom during rotational movements. Athletes' joints, muscles and ligaments are optimally protected. Professional sports such as basketball and competitive dance or skate sports predominantly take place on area elastic sport floors. Thanks to the high degree of stability, Polytan GYM Area is ideally suited for multi-purpose halls with mixed use for sports and events with mobile grandstands and seating.

AREAS OF APPLICATION

- Multi-purpose facilities
- Sports and multi-purpose halls with mobile grandstands
- Types of sports that place priority on ball bouncing properties, e.g. basketball
- Skate sports

PRODUCT SPECIFICATIONS

- Seamless surface
- Hard, area elastic surface
- Can be certified according to international sports association requirements



COMBINED ELASTIC

Polytan GYM Combi



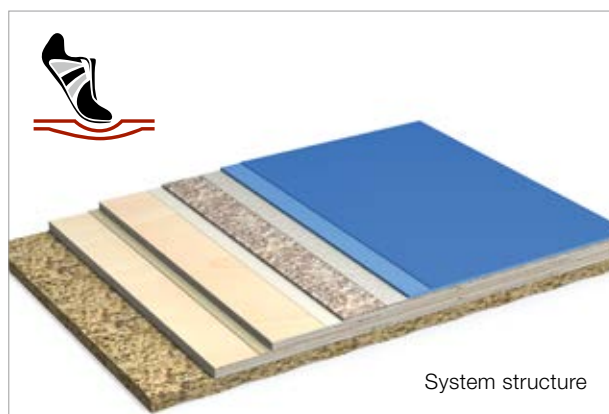
Polytan GYM Combi combines the positive protective function characteristics of point elastic systems with the benefits of the sport function properties of area elastic systems. The surface offers optimum protection for uses such as martial arts, where the substructure cushions loads created by quick jumping and running movements over a wide area and the point elastic top layer additionally protects against fall injuries with its soft surface. This makes it just as suitable for both lightweight and heavyweight athletes. Like the other Polytan GYM sports flooring systems, GYM Combi offers a tough, scratch-resistant surface that is particularly easy to clean and maintain thanks to seamless installation.

AREAS OF APPLICATION

- School and recreational sports
- Multi-purpose sports floor surface for all types of sports

PRODUCT SPECIFICATIONS

- Seamless surface
- Soft, point and area elastic surface
- Can be certified according to international sports association requirements

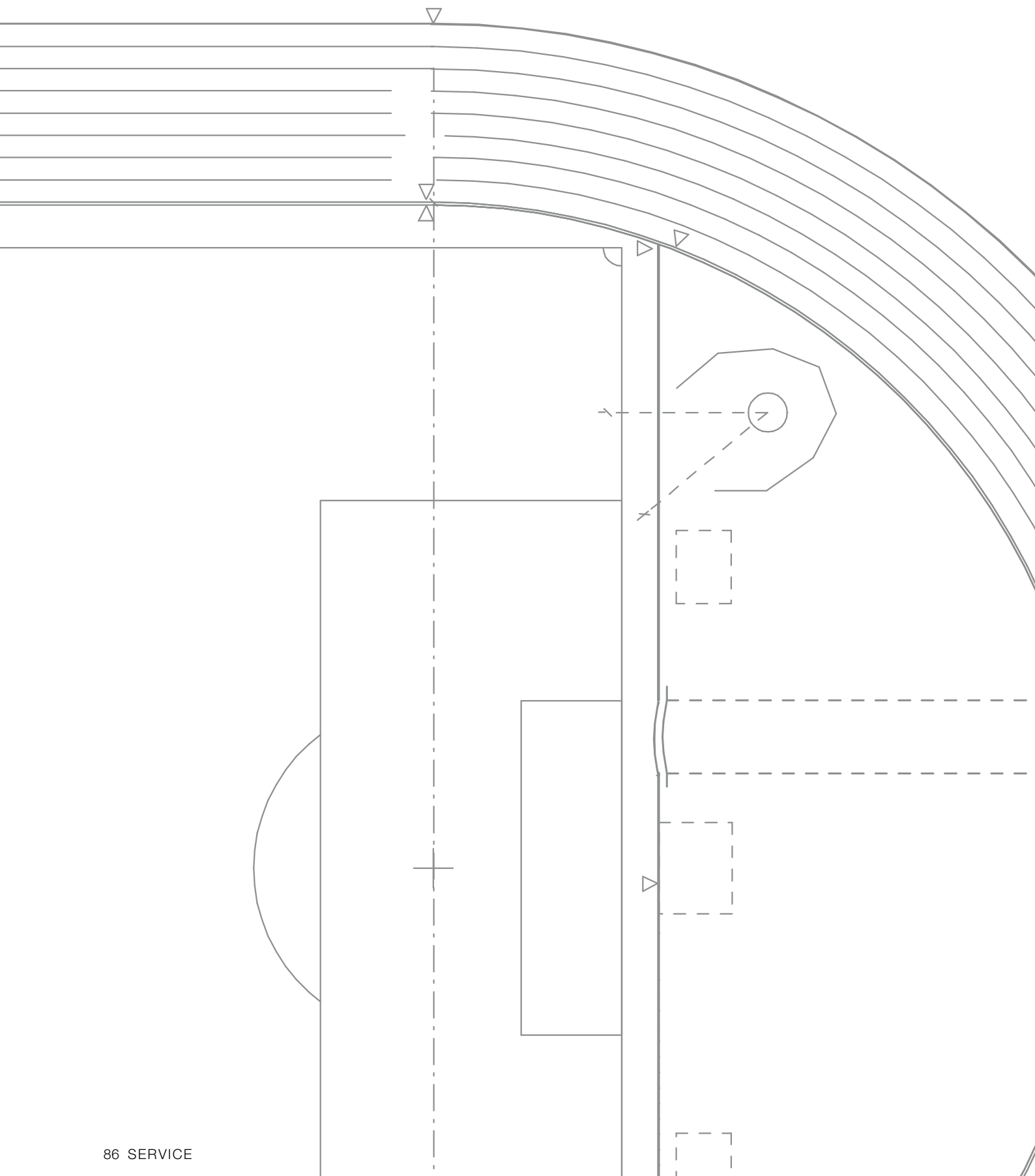


Cross-section



WE DELIVER ON OUR PROMISES

PROVIDING GOOD CUSTOMER SERVICE IS AN ESSENTIAL PART OF WHAT WE DO





OUR FULL COMMITMENT

At Polytan, we aim to deliver maximum product quality over a maximum time period. We give it our all to turn this goal into reality. We achieve this by using essential accessories for cleaning and maintenance, with expert personnel who perform this maintenance for you at your request and with expertise and enthusiasm for getting the job done when it comes to subsequent conversions, renovations or repairs. Competently and reasonably priced.

THE PARTNER AT YOUR SIDE

By choosing Polytan, you receive high-quality, professionally installed sports surfaces that are precisely matched to your needs. In addition, you are provided with the security of always having a competent partner at your side. As a full-range supplier we not only offer a wide range of accessories, such as goals, long jump bars or basketball hoops to complete your venue. We also have specialised machines that we have developed ourselves for efficiently cleaning, servicing and repairing our synthetic turf systems and synthetic surfaces, thus ensuring a consistently high quality of use and ideally retaining the value of your Polytan sports surface.

We can also help you with project planning right from the start. Whether you require assistance with the creation of CAD plans, such as e.g. marking plans, or detailed technical drawings – we are there for you.

SERVICE



CLEANING AND MAINTENANCE

Polytan sports surfaces are designed to retain full functionality, even after many years of intensive use.

However over a long period of time, dirt, dust, pollen, environmental factors and weather influences such as rain, snow or strong sunlight take their toll on even the thickest surface. That is why we recommend that your Polytan sports surfaces are professionally cleaned at regular intervals. As your service partner, Polytan provides expert personnel, special equipment and guidance to help you with this task.

We offer training programmes and special cleaning equipment and quickly carry out expert repairs when needed. We will also be happy to arrange a maintenance and service agreement with you.

THE RIGHT CARE FOR SYNTHETIC TURFS

Routine visual inspections and the immediate removal of surface dirt or other impurities are among the duties of any groundsman.

When it comes to regular care and maintenance of optimum technical and sports physiology factors, Polytan recommends the Polytan ACS unit to its customers which is used for brushing the synthetic turf and for levelling and loosening the infill. We offer a variety of wet and dry cleaning services performed by our qualified experts for an intensive deep clean.

REPAIRS TO SYNTHETIC TURF

- Replacement of stress impact points
- Replacement of lines/new line markings
- Treatment of stress zones (heavily worn areas of turf)



SERVICE



THE RIGHT CARE FOR SYNTHETIC SURFACES

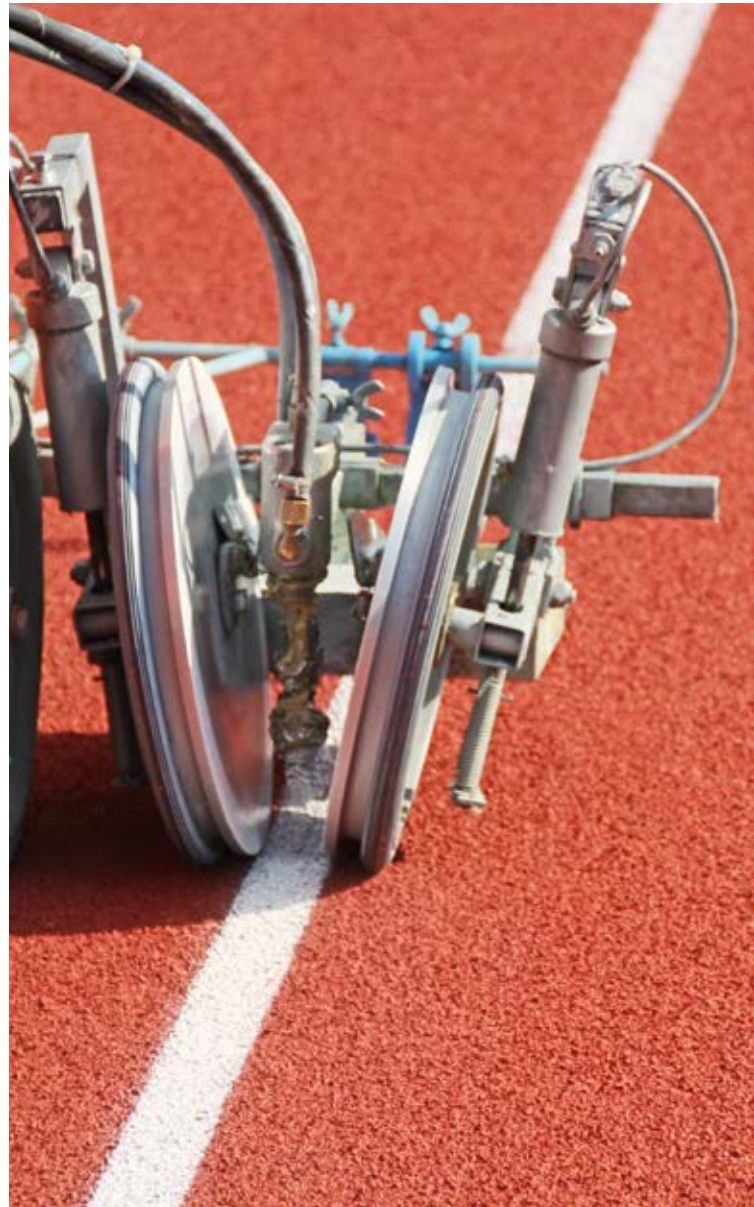
Running tracks and multifunctional surfaces also become contaminated over time as a result of various environmental factors, with the surface becoming weather-beaten, mossy or encrusted, for example. A high-pressure wet cleaner can be used to remove these impurities from the surface and restore it to a fully functioning sports track.

REPAIRS

We are also your competent partner to rectify various damages – whether it's age-related wear and tear, improper use or vandalism. Depending on the nature and extent of the damage, a team of Polytan repair specialists is on hand ready to get your sports surface looking good and functioning properly in next to no time at all.

REPAIRS TO SYNTHETIC SURFACES

- Repair work to all types of surface
- Renewal of line markings on running tracks and playing fields
- Recoating of synthetic surfaces



SERVICE



ACCESSORIES

In addition to an entire range of maintenance and service equipment, we also offer a large selection of sports equipment and accessories. We will be happy to send you our separate catalogue upon request.

PROJECT SUPPORT

- Creation of CAD plans and technical drawings
- Measurement and line marking

MAINTENANCE AND SERVICES

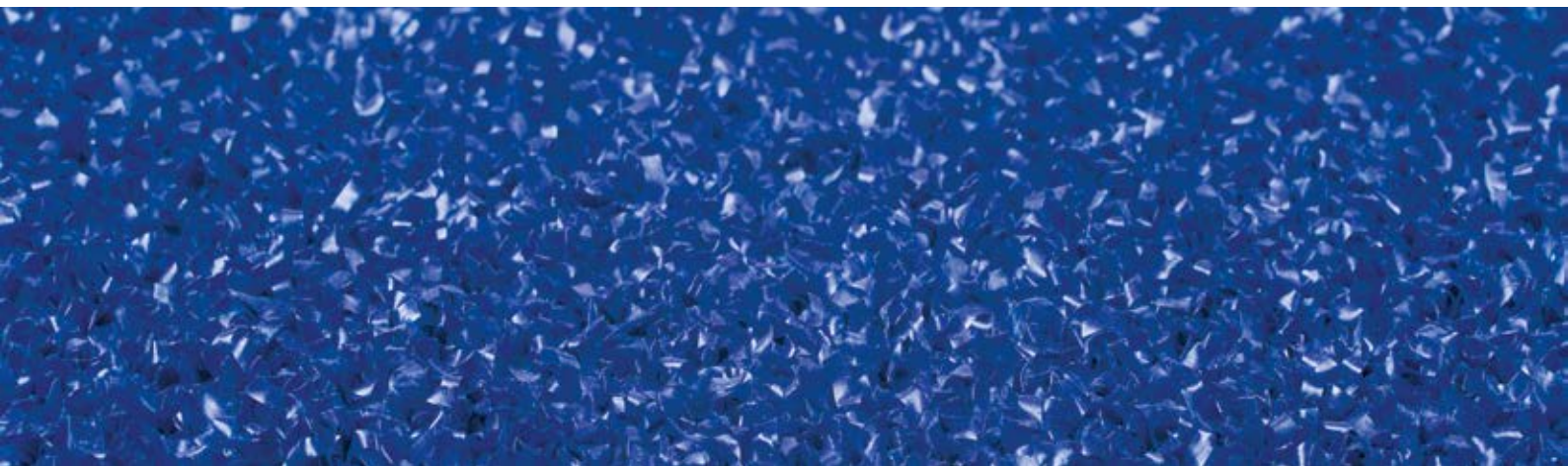
- Maintenance and care seminar
- Deep cleaning of synthetic turf
- Surface cleaning of synthetic surfaces
- Training programmes



REMOVAL/REUSE/RECYCLING: FAST AND PROFESSIONAL

After several tens of thousands of hours of intensive use, your synthetic turf system will need to be replaced. This is the only way to permanently guarantee the optimum playing properties of your turf. Because of this, re-tenders for sports turf pitches increasingly also include the removal of the existing turf. In order to live up to our claim of being a responsible full-range supplier, Polytan also offers the fast and professional removal of old sports surfaces. We can remove synthetic turf from the floor on which it is installed in sections quite easily and roll it up into a compact roll which can be taken away at the same time without any problems. Sand and residual granules will be removed and separated from the turf as much as possible. The rolls of synthetic turf and the residual granules will then be reused, recycled or recovered. Polytan can remove synthetic turf systems within just a few days, enabling your new system to be installed faster and minimising the disruption to your schedule of play.





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