

POLIGRAS[®]

POWERED BY



SPORTS AND LEISURE
**SYNTHETIC
SURFACE
SPECIALISTS** HOCKEY

*Featuring Poligras[®] Brand Ambassadors
Olympic Hockey Player, Anna Flanagan & Olympic Hockey Player, Simon Child*



FROM AMATEUR TO PROFESSIONAL

We've got you Covered

Poligras® is proudly produced by APT Asia Pacific. Our mission is to provide high quality, innovative, customer driven surfaces for all types of sports.















Installing outdoor sports surfaces demands specific expertise, a high level of precision and experience. We therefore exclusively use pre-approved installers, namely Polytan with their extensive worldwide agent network, whom employ specially trained staff to install our respective products.

In doing this we ideally accommodate your specific conditions and therefore ensure that your hockey surfacing system has excellent performance characteristics over the entire area.

Whatever your sports needs might be, we have a surface and solution for you.

Featuring Poligras® Brand Ambassadors
Olympic Hockey Player, Stacy Michelson & Olympic Hockey Player, Jamie Dwyer

PRODUCT FEATURES

	Platinum COOLplus	Olympia COOLplus	AquaTurf Evolution	H2OZ COOLplus	AquaTurf SL
 Global	■	■	■		
 National				■	■
 Water-permeable surface	■	■	■	■	■
 'Entanglement Technology'	■	■		■	
 COOLplus® function	■	■		■	
 Sand dressed				■	■
 Full adhesion	■	■			
 Resource conservation	■	■	■	■	■
 Professional	■	■	■		
 Multisport				■	■
 Force reduction	■	■	■	■	■
 Water based technology	■	■	■		
 Heavy metal free	■	■	■	■	■
 Recycled rubber used	■	■	■	■	■

With our Poligras® range, we offer perfect solutions with ideal playing properties for every demand and every budget – from multipurpose pitches through to stadiums for professionals.

Our Poligras® hockey range is a complex, high tech system, which consist of an elastic base layer, the actual turf surface and, if necessary, natural filling materials.

Various components with special properties are used depending on the intended hockey use. Poligras® surfaces utilise non-directional, polyethylene sports yarn to provide optimum ball surface interaction.

Extensive research and development is undertaken by a trained team of chemists working with sports professionals to establish the specific characteristics required for hockey or indeed multi-sport suitability. Our flexibility to accommodate your needs sets us apart from our competitors.

We have been developing, producing and installing high quality Poligras® surfaces worldwide for many decades. Each and every day we put our full commitment, expertise and passion into providing clubs and athletes with the perfect surface.



**Poligras® is the exclusive
FIH preferred pitch supplier.**

CERTIFIED AND PREFERRED

All our synthetic surfaces comply with the current national and international standards, including all environmental requirements. The consistent high quality of our surfaces is ensured 100% by final inspection and testing according to our ISO 9001 certification. Our hockey fields can be tested and certified according to FIH requirements (International Hockey Federation).



POLIGRAS®

PLATINUM COOLplus®

Poligras® Platinum COOLplus® is the world-wide market leading FIH Approved surfacing system developed to meet the highest expectations for professional hockey play.

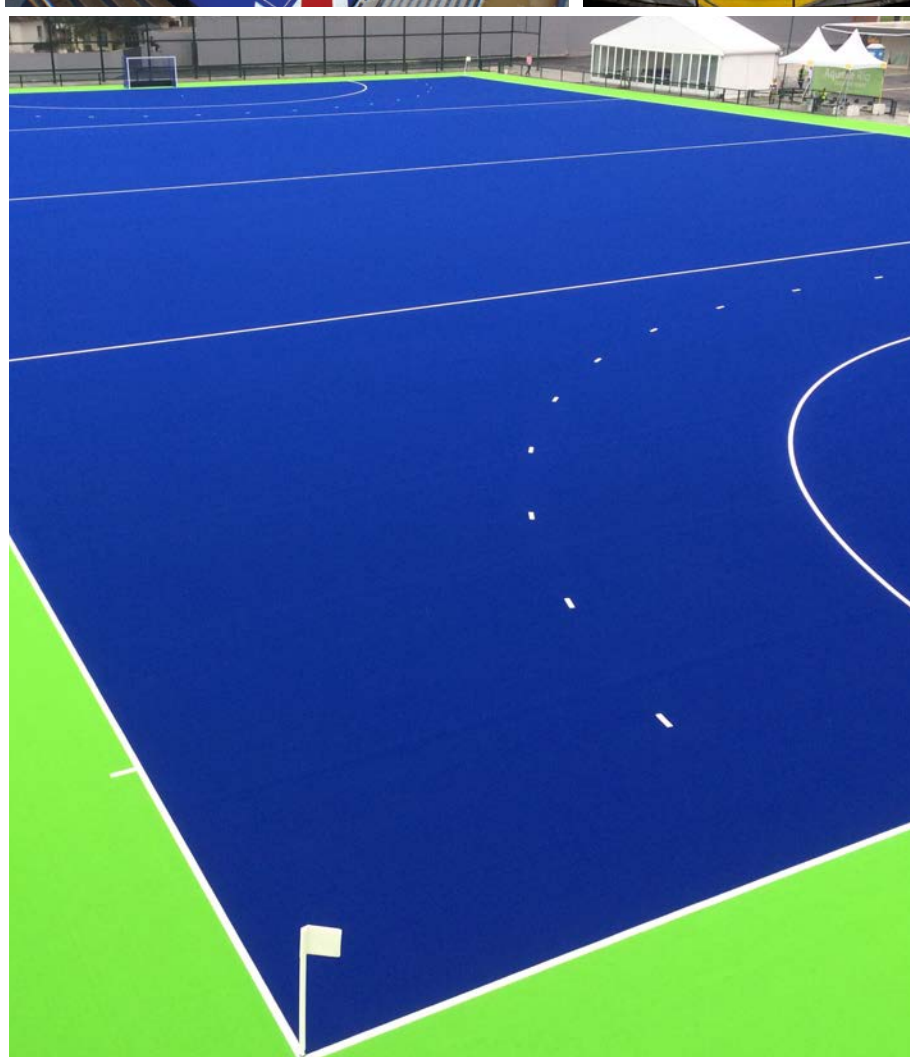
Design of this system involves innovative technology to enhance the uniformity of play for premium performance. The proprietary monofilament fibre texturisation process and finely tuned specification provides a playing surface to benefit elite quality hockey.

The surface matrix and Qualipur proprietary spray adhesion promotes capillary action for reduced irrigation. Softness of the playing surface combined with maximum wear resistance ensures this surface is truly the leading system on the market!



Areas of Use

Professional hockey pitches
Elite international tournaments



Global **FIH**

- Water-permeable surface
- 'Entanglement Technology'
- COOLplus® function
- Full adhesion
- Resource conservation
- Professional
- Force reduction
- Water based technology
- Heavy metal free
- Recycled rubber used

KEY BENEFITS

- Synthetic turf with monofilament texturised fibres
- Player friendly, unsurpassed energy return and player comfort
- Reduced irrigation
- Extreme UV stability and durability
- Minimal maintenance
- Seam adhesion longevity
- Elite ball/surface interaction
- Aesthetically pleasing colour palette
- Environmentally friendly – recycled products utilised during construction
- Soft and resilient yarn, the micro fibre offers physical protection for the athlete at the same time delivering unsurpassed durability
- Offers true non-directional play with ball characteristics allowing for fast, accurate play



Usage	Heavy	Moderate	Light
Hours per week	50	30	10
Recommended resurface time (yrs)	7-9	9-10	10+

SPECIFICATION

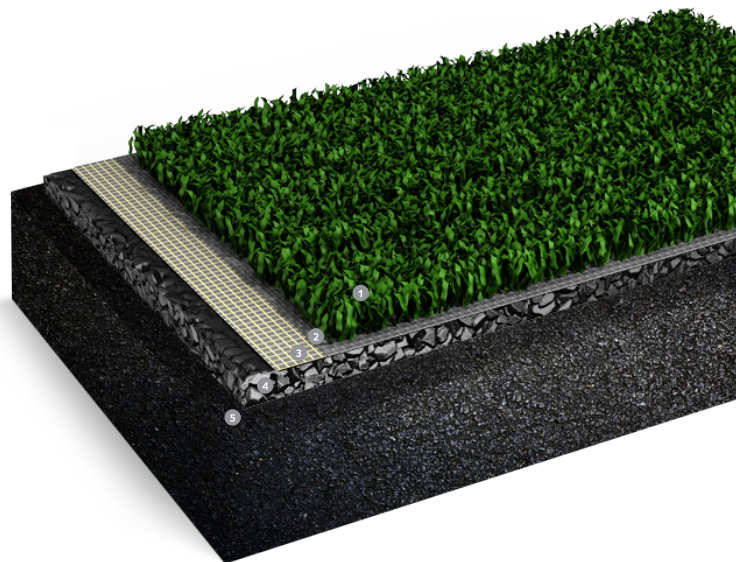
Poligras® Platinum COOLplus® meets all the requirements of FIH Approval for unfilled hockey surfacing system and has multiple Global standard references.

Our recommended system for Olympic Games, World Cups, World Championships, Champions Trophy and Commonwealth Games level. It exhibits outstanding UV stability and playability from the exclusive texturised monofilament – allowing for fast-moving styles of play with precise ball characteristics.

Designed to provide an elite surface with reduced irrigation requirements.

The exclusive **‘Entanglement Technology’** is a proprietary feature of the Polytex fibres which interlaces the molecular chains in the turf fibre into a three dimensional matrix. The result is an exceptionally soft surface and greater protection against splicing with optimum playing properties and a considerably longer lifespan.

Unique **COOLplus®** function directly reflects the IR radiation which is invisible to the human eye due to the formulation that embeds pigments in the turf filaments. It effectively retards the heating process of the turf.



SYSTEM STRUCTURE LAYERS

- 1 Exclusive engineered polyethylene monofilament sports yarn, for elite play characteristics.
- 2 Qualiback ‘Hybrid Emulsion’ secondary backing, for greater seam strength and surface longevity.
- 3 Qualipur full spray adhesion – for controlled drainage, dimensional stability and increased system longevity.
- 4 Elastic layer shockpad – engineered for elite performance and successfully reused on multiple resurfacing projects.
- 5 Asphalt layer – for project longevity and precision, controlled by trained in-house professionals to meet stringent FIH construction tolerances.



POLIGRAS®

OLYMPIA COOLplus®



SYSTEM STRUCTURE LAYERS

- 1 Exclusive engineered polyethylene monofilament sports yarn, for elite play characteristics.
- 2 Qualiback 'Hybrid Emulsion' secondary backing, for greater seam strength and surface longevity.
- 3 Qualipur full spray adhesion – for controlled drainage, dimensional stability and increased system longevity.
- 4 Elastic layer shockpad – engineered for elite performance and successfully reused on multiple resurfacing projects.
- 5 Asphalt layer – for project longevity and precision, controlled by trained in-house professionals to meet stringent FIH construction tolerances.

SPECIFICATION

Poligras® Olympia COOLplus® meets all the requirements of FIH approval for unfilled hockey surfacing system and has multiple global references.

The system is an improvement on our **Poligras® Olympia** that was used at Olympic games, World Cups, World Championships, Champions Trophy and Commonwealth Games level. It exhibits outstanding UV stability and playability from the exclusive fibrillated yarn, allowing for fast-moving styles of play with precise ball characteristics.

Designed to provide a soft surface with reduced irrigation requirements the surfacing system is a complete success. You saw the colour options for this system at the 2012 Olympic games, with their blue playing surface and pink border success!

WATERED TURF



Poligras® Olympia COOLplus® is designed to provide elite hockey play standard across numerous international and regional facilities. Using exclusive yarn, the hockey pitches offer excellent physical play and comfort for the players.

The even surface made of texturised monofilament ensures fast-moving styles of play with excellent durability characteristics. This surface offers a high level of comfort against wear, along with proven reduced irrigation requirements. Just like all our hockey pitch products **Poligras® Olympia COOLplus®** meets all requirements of the International Hockey Federation (FIH).



KEY BENEFITS

- Fully synthetic turf with exclusive texturised monofilament fibres
- Soft and resilient yarn
- Excellent playability
- Elastic Layer shockpad to provide shock absorption
- Lines are tufted in during manufacture and inlaid lines secured with breakthrough adhesive technology
- Best possible UV stability and proven international reputation for playing surface to Olympic level.



- FIH** Global
- Water-permeable surface
 - 'Entanglement Technology'
 - COOLplus®** function
 - Full adhesion
 - Resource conservation
 - Professional
 - Force reduction
 - Water based technology
 - Heavy metal free
 - Recycled rubber used

Areas of Use: Professional hockey pitches; club hockey pitches



Usage	Heavy	Moderate	Light
Hours per week	50	30	10
Recommended resurface time (yrs)	7-9	9-10	10+

WATERED TURF



The Sport Group, owners of the world renowned Polytan brand, acquired TEAM Sports, a major synthetic hockey surface provider. This synergy is a perfect match, allowing us to focus on excellence in service to the industry and customers, as well as producing outstanding quality in synthetic sporting surfaces. We are proud to add the **AquaTurf® Evolution** to the Poligras® range.

Aquaturf® Evolution, is a leading watered synthetic turf hockey surface developed by TEAM Sport to suit State Hockey centre and regional locations.

Evolving from the successful **Aquaturf® SL** (sand dressed) synthetic hockey surface, **Aquaturf® Evolution** is designed using a polyethylene fibrillated KDK yarn, manufactured in-house, with unique polymer formulation and fibrillation pattern to improve playability and increase durability whilst offering improved ball roll, reduced friction and turf abrasion resistance.



KEY BENEFITS

- Exclusive KDK fibrillated fibres
- Soft and resilient yarn
- Excellent playability
- Elastic Layer shockpad to provide shock absorption
- Lines are tufted in during manufacture and inlaid lines secured with breakthrough adhesive technology
- Best possible UV stability and proven international reputation for playing surface to State Centre level
- Australian Made®



- FIH** Global
- Water-permeable surface
 - Resource conservation
 - Professional
 - Force reduction
 - Water based technology
 - Heavy metal free
 - Recycled rubber used

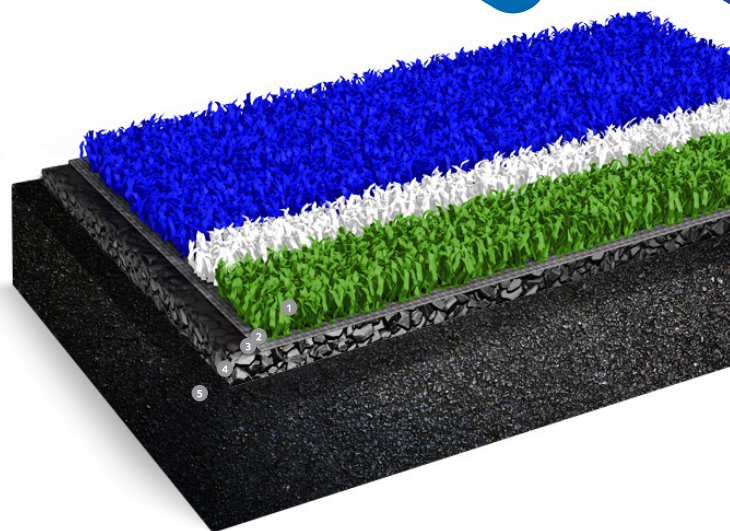
Areas of Use: State Hockey Centres; Regional Hockey facilities



Usage	Heavy	Moderate	Light
Hours per week	50	30	10
Recommended resurface time (yrs)	7-9	9-10	10+

AquaTurf®
EVOLUTION

POLIGRAS®



SYSTEM STRUCTURE LAYERS

- 1 Polyethylene KDK exclusive sports yarn, for elite play characteristics.
- 2 Qualiback 'Hybrid Emulsion' secondary backing, for greater seam strength and surface longevity.
- 3 Strip glue adhesion – for dimensional stability and increased system longevity.
- 4 Elastic layer shockpad – engineered for elite performance and successfully reused on multiple resurfacing projects.
- 5 Asphalt layer – for project longevity; precision controlled by trained in-house professionals to meet stringent FIH construction tolerances.

SPECIFICATION

Poligras AquaTurf® Evolution meets all the requirements of FIH approval for unfilled hockey surfacing system and has multiple reference sites.

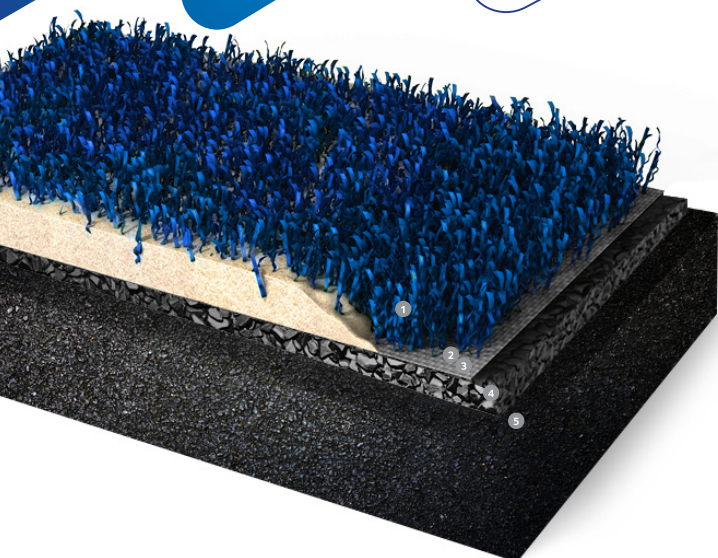
The system has been installed at State Centre level and hosted international standard matches.

It exhibits outstanding UV stability and playability from the exclusive fibrillated yarn, allowing for fast-moving styles of play with precise ball characteristics – and to top it off, it is Australian made!



POLIGRAS®

H₂OZ COOLplus®



SYSTEM STRUCTURE LAYERS

- 1 Polyethylene texturised monofilament sports fibre, for excellent play characteristics in dry condition. Finely grained kiln dried 'sand-dressed' infill.
- 2 Qualiback 'Hybrid Emulsion' secondary backing, for greater seam strength.
- 3 Strip glue adhesion – for dimensional stability and increased system longevity.
- 4 Elastic layer shockpad – engineered for elite performance and successfully reused on multiple resurfacing projects.
- 5 Asphalt layer – for project longevity; precision controlled by trained in-house professionals to meet stringent FIH construction tolerances.

SPECIFICATION

Poligras® H2OZ COOLplus® meets all the requirements of FIH approval for sand dressed hockey surfacing systems.

Designed to provide a soft surface with proven 'dry play' performance where the surfacing system is a complete success.

Strip glue adhesion utilised to provide dimensional stability and enable proven reuse of the elastic layer underlay.

Sand dressed infill – to ensure longevity and excellent ball roll.

HYBRID SAND DRESSED



Poligras® H2OZ COOLplus® is an FIH Approved system having multiple references tested to National level. The system is designed for high standard matches in locations where irrigation is unavailable, restricted or not installed.

Acceptance of the system has been immediate from top players with fields showing quality wear and play characteristics. Multisport activity has extended to these fields adding further income streams and assisting with distribution of wear factors. The system exhibits excellent UV stability and durability due to the exclusive monofilament yarn design



KEY BENEFITS

- Durable
- The exclusive fibre assists player movements when accelerating, turning and slowing down
- The high wear resistance of the fibres guarantees stable and consistent playing qualities
- Water efficient
- Low abrasion
- Multisport capability
- Optional dry or wet use
- Ideal surface where irrigation is not possible or restricted

- FIH** National
- Water-permeable surface
 - 'Entanglement Technology'
 - COOLplus® function
 - Sand dressed
 - Resource conservation
 - Multisport
 - Force reduction
 - Heavy metal free
 - Recycled rubber used

Areas of Use

- Hockey pitches
- Perfect for locations with water restrictions
- Multisport



Usage	Heavy	Moderate	Light
Hours per week	50	30	10
Recommended resurface time (yrs)	7-9	9-10	10+

HYBRID SAND DRESSED



As part of the acquisition of TEAM Sports, we are proud to add to our collection the **AquaTurf® SL** sand dressed system.

Poligras Aquaturf® SL was first developed in 2005 when FIH began its investigations into the possibility of a water-free synthetic hockey turf. Research and development in yarn construction lead to the manufacture of polyethylene 'Springlock' technology which is now manufactured in-house at the APT headquarters.



KEY BENEFITS

- Durable
- The exclusive fibre assists player movements when accelerating, turning and slowing down
- The high wear resistance of the fibres guarantees stable and consistent playing qualities
- Water efficient
- Low abrasion
- Multisport capability
- Optional dry or wet use
- Ideal surface where irrigation is not possible or restricted
- Australian Made®



National



Water-permeable surface



Sand dressed



Resource conservation



Multisport



Force reduction



Heavy metal free



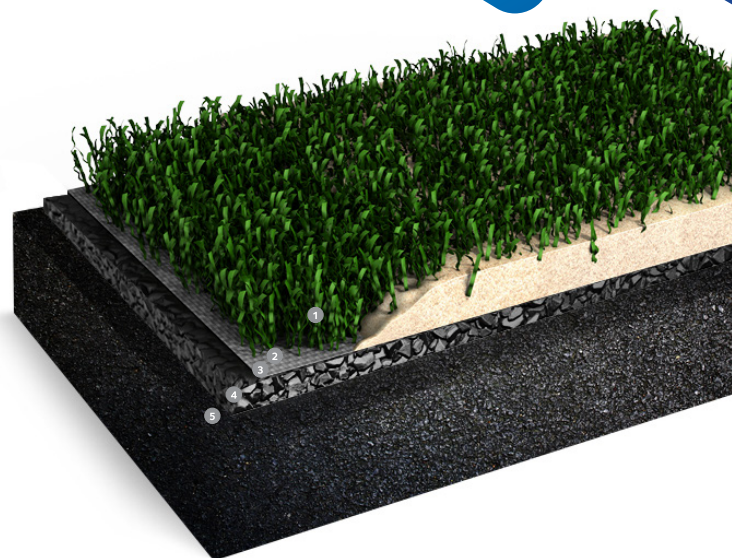
Recycled rubber used

Areas of Use

- Hockey pitches
- Perfect for locations with water restrictions
- Multisport



Usage	Heavy	Moderate	Light
Hours per week	50	30	10
Recommended resurface time (yrs)	7-9	9-10	10+



SYSTEM STRUCTURE LAYERS

- 1 Polyethylene KDK sports fibre, for excellent play characteristics in dry condition. Finely grained kiln dried 'sand-dressed' infill.
- 2 Qualiback 'Hybrid Emulsion' secondary backing, for greater seam strength.
- 3 Strip glue adhesion – for dimensional stability and increased system longevity.
- 4 Elastic layer shockpad – engineered for elite performance and successfully reused on multiple resurfacing projects.
- 5 Asphalt layer – for project longevity; precision controlled by trained in-house professionals to meet stringent FIH construction tolerances.

SPECIFICATION

Poligras AquaTurf® SL meets all the requirements of FIH approval for sand dressed hockey surfacing systems and meets FIH National standard certification.

Designed to provide a soft surface with proven 'dry play' performance where the surfacing system is a complete success.

Strip glue adhesion utilised to provide dimensional stability and enable proven reuse of the Elastic Layer shockpad.

Sand dressed infill – to ensure longevity and excellent ball roll.

Synthetic Turf System Installation and Advantages

Natural or Synthetic?

1.



NATURAL OR SYNTHETIC?

The use of synthetic hockey turf playing surfaces is widespread internationally. Since the introduction of synthetic hockey pitches at the 1976 Montreal Olympic Games the use of natural turf for field hockey has ceased at an elite competition level.

SYNTHETIC TURF SYSTEMS – SYSTEMATIC SUCCESS

Our synthetic hockey systems impress with their optimum playing properties, which are individually matched to the sport and player demands. Depending on the intended use, field design and construction techniques are developed to complement every Poligras® surface.

SELECTING YOUR PREFERRED POLIGRAS® PRODUCT:

Our Poligras® range has been developed to cover all standards of competition and irrigation requirements.

Texturised turf fibres provide the key advantage in hockey since the crimping provides a thicker, completely non-directional surface which allows for fast moving, precise styles of play and an improved water retention.

In club facilities where there is high usage we can provide a turf that has lower maintenance costs. Our PE formulation ensures pleasantly soft elasticity and therefore a high level of protection against injuries.

DESIGN AND CONSTRUCTION

Every sporting facility project is different and presents its own unique aspects and challenges. Ensure your design and construction teams have the correct experience to translate your vision into a reality. Part of a successful, winning formula is engaging local expertise in the form of local grounds personnel, caretakers, environmental authorities, civil contractors and combining their knowledge to meet all the local requirements and standards. We recommend you only use certified, approved installers.

ELASTIC LAYER SHOCKPAD

The shock absorption layer of the Poligras® system is installed on site and consists of recycled SBR granules and bonding agents to ensure that the Poligras® synthetic surface is both stable and yielding to protect the athletes. Factors that are key in sports physiology, such as shock absorption and deformation, are permanently kept within a precisely defined value range thanks to the special APT formulation.

Select your preferred Poligras® product

2.



Design and construction begins

3.



4.

Preparation of the base and drainage



Install the elastic base layer

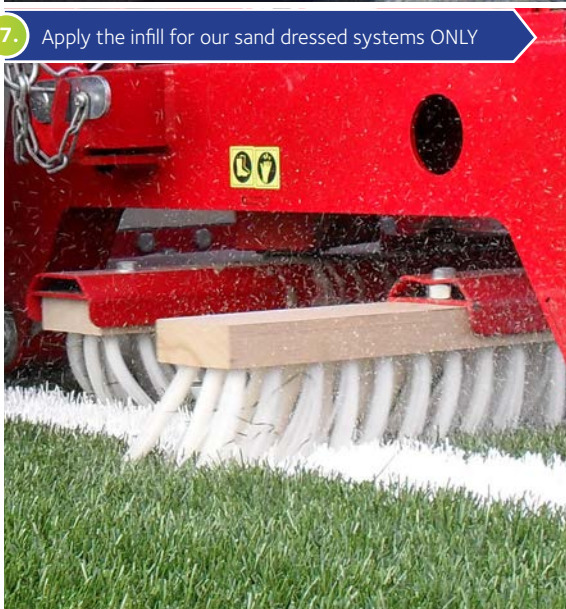
5.



6. Apply the Qualiback Spray Adhesive



7. Apply the infill for our sand dressed systems ONLY



QUALIBACK HYBRID EMULSION:

Extensive research and development led to the highly successful 'Hybrid Emulsion' secondary backing coating to replace outdated technology. The upgrade of this critical system component is based on our chemical manufacturing excellence for formulating acrylic and polyurethane coatings. In-house manufacture and application of the revolutionary 'Hybrid Emulsion' secondary backing for artificial turf is a substantial improvement from conventional and outdated SBR latex.

QUALIPUR SEAMING ADHESIVE:

In-house manufacture of this polyurethane seaming adhesive creates unmatched seam strength. This increases the durability and longevity of seams which means fields have a much longer overall life expectancy.

QUALIPUR SPRAY ADHESIVE:

In-house manufacture of this exclusive adhesive offers 100% adhesion of the entire pitch surface. This revolutionary adhesive application provides superior dimensional stability over 'loose laying' techniques for unfilled hockey surfaces. Reducing playing surface, delamination and frequent 'stick-tears' in high wear areas on aged unfilled turfs is the secret to longevity and minimising loss of water from the system once irrigated.

GRIP AND TRACTION: THE FILLING MATERIALS

(FOR OUR SAND DRESSED SYSTEMS ONLY)

Depending on the application and type of turf, Poligras® systems are either unfilled or 'dressed' with kiln dried sand. The infill granules are an extremely important component of the system for non-irrigated pitches, as the granules allow the necessary grip and adequate traction when changing speed or direction as well as provides realistic ball rolling behaviour.

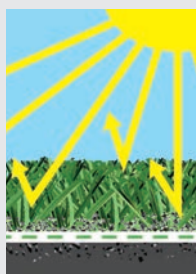
8. **CERTIFIED AND PREFERRED**

The high quality and excellent playing properties of our synthetic turfs have also been verified by numerous seals of quality and certificates. Our synthetic turf systems meet the current national and/or international standards and can be tested and certified according to FIH requirements (International Hockey Federation).

9. **THE KEY TO SUCCESS: PROFESSIONAL INSTALLATION**

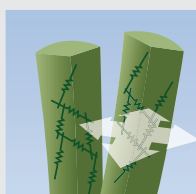
Outdoor sports surfaces demand a high level of precision and experience. Ensuring that your system has excellent performance characteristics over the entire surface and longevity we recommend that you only use a certified, approved installer.

Enjoy your new Poligras® Field



COOLplus® TECHNOLOGY: Some **Poligras®** systems feature proprietary infrared-reflective **COOLplus®** sports yarn technology. Sunlight is comprised of a wide spectrum of radiation including visible light, UV radiation and infrared (IR). Infrared radiation causes molecular vibration, which translates into heat energy when it is absorbed by an object.

Our proprietary **COOLplus®** yarn technology does not absorb infrared rays, translating into less molecular vibration and cooler surface temperatures. Studies show **COOLplus®** surface temperatures are consistently 10-20% lower than the competitive systems. The result is better player comfort and reduced need for irrigation!



DURABILITY: The 'Entanglement Technology' in the **COOLplus®** sports fibre interlaces the molecular chains in the turf fibre into a three dimensional shape. The result is an exceptionally soft surface and greater protection against splicing with optimum playing properties and a considerably longer lifespan.





SPORTS
AND LEISURE
**SYNTHETIC
SURFACE
SPECIALISTS**

AUSTRALIA 1800 652 548

Factory 3, Dunlopillo Dr. Dandenong South,
VIC 3175 Australia

info@aptasiapacific.com.au

www.aptasiapacific.com.au

@APTWorldwide  

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