



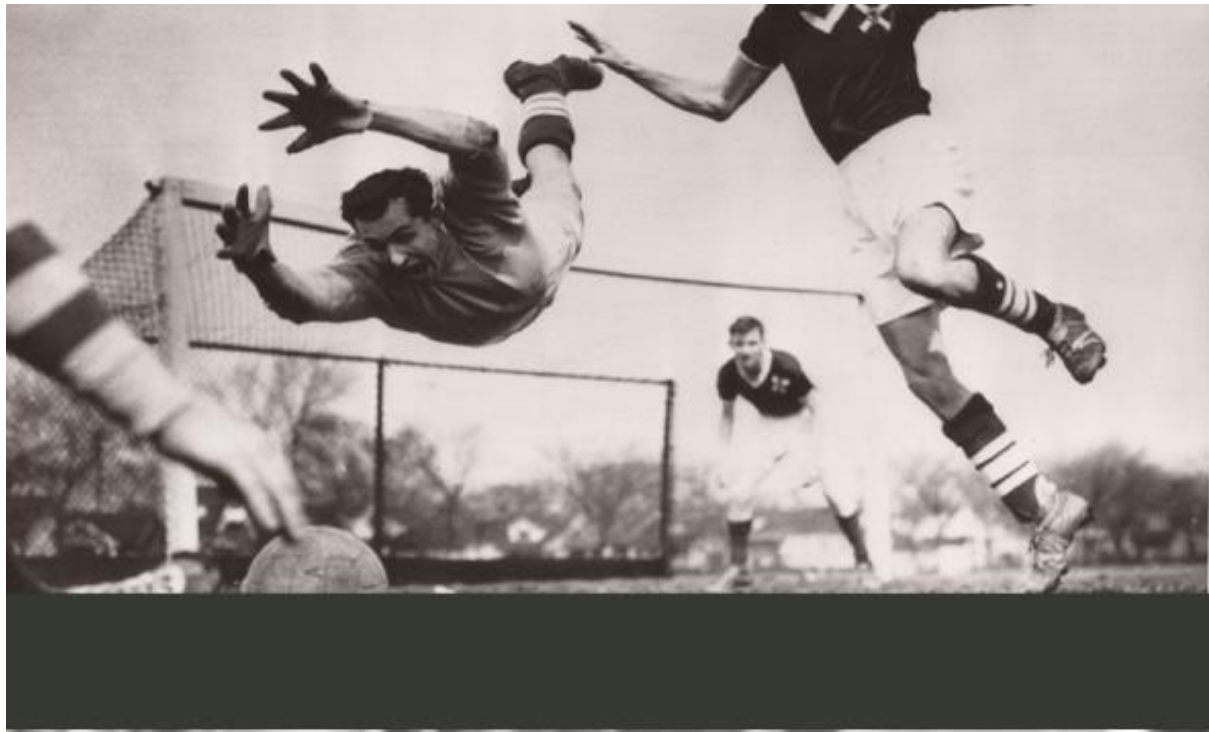
# Football NSW

## SALTEX Synthetic Turf Football Pitches

### Case Study



**HG**  
SPORTS  
TURF



 **saltex**

# HG Sports Turf



- Design, construction and maintenance of sports fields since 1999
- Natural Turf, Stabilised Turf, Hybrid Turf, Synthetic Turf
- Asia-Pacific clients, with operation in Australia, New Zealand and Singapore.
- International events: Sydney Olympic Games, Melbourne Commonwealth Games, Rugby World Cups, Doha Asian Games, Singapore South-East Asian Games

## **Stabilised Turf / Hybrid Turf:**

AMI Stadium, ANZ Stadium, Canberra Stadium, Eden Park, Etihad Stadium, Gabba, MCFC Training Centre, MCG, NIB Stadium, Singapore National Stadium, Waikato Stadium,

## **Synthetic Turf:**

Australian National University, Guam Football Association, Melbourne Grammar School, Football NSW





# Saltex



- Finish company, 100% family owned, with a long history in the textile industry.
- Specialising in premium football synthetic turf.
- FIFA Preferred Producer, only FPP with AAA credit rating.
- Modern production facility, 2006.
- Quality Certified under ISO 9001 and ISO 14001.
- All systems/ components are tested in accordance with the environmental requirements of DIN18035-7 Part 7 for Synthetic Surfaces for outdoor Sports Areas.
- Back-up support Saltex Log Book and Saltex Field Man.



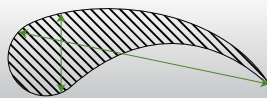
# Saltex Drop Fibre



- Premium football fibre
- Unique shape -> new asymmetrical fibre
- No critical breaking points -> no spine, guaranteed durability
- 110000 cycles on 15m lisport -> no change of aspect, nor ball roll
- Resilient fibre -> can play & train on same pitch
- Warranty 8 years or 20200 playing hours (2525hrs/yr or 48hrs/wk)
- XQ polymer, global installations and testing, Tencate warranty
- Good look and feel -> preferred by players
- Integrated in multi-sport systems -> versatile

## OPTIMAL RATIO

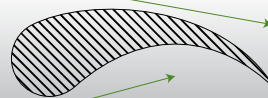
THICKNESS & WIDTH



2000 Dtex x6

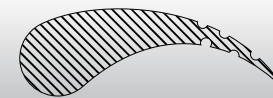
## GOOD APPEARANCE

APPEARANCE PART



TECHNICAL PART

## CONTROLLED ABRASION



## MICRONS

270-290 MICRON



115-120 MICRON





# Saltex Drop Fibre



Quality&	Lisport&ycles&	Ball&oll&
PE fibrillated fiber	110.000	>15m
MF fiber with spine	110.000	>15m
Saltex Greenie XTM	110.000	9m
Saltex Greenie Drop	110.000	8,5m

Note: Generally 1000 cycles of Lisport is equivalent to 1000 hours of play



Photo: Drop fiber after 110.000 cycles on 15m lisport

Conclusion: Saltex Drop shows no change in aspect after 110,000 cycles on the 15m Lisport and the ball roll stays within the limits of FIFA Quality Concept for Football Turf.



# PU Coating – Why?



## Polyurathane secondary backing

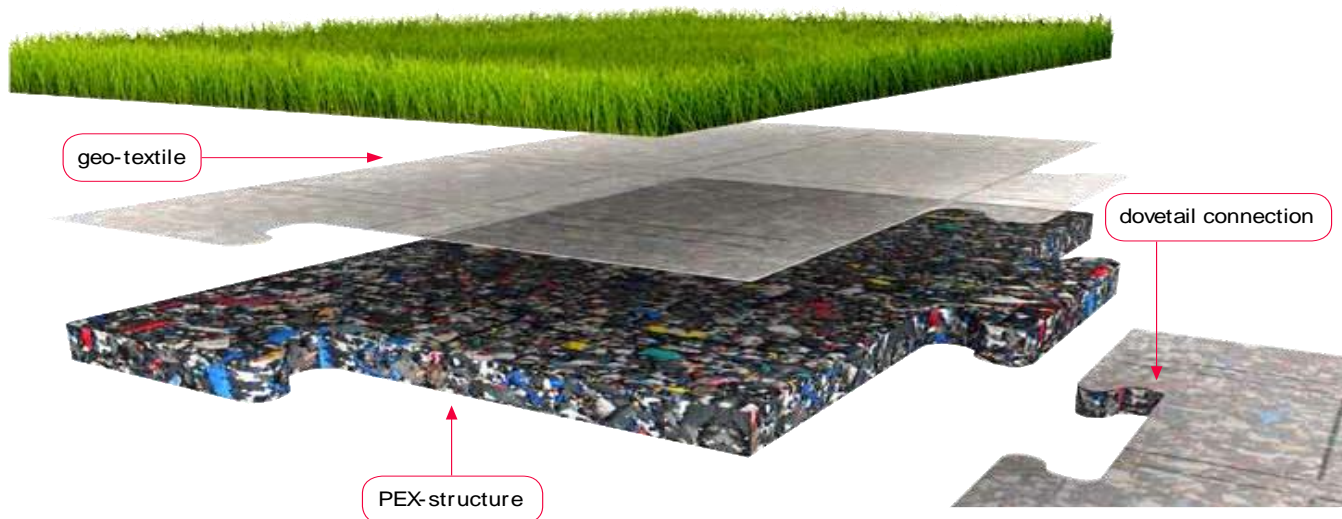
- All weather solution = hydrofobic (enemy of latex is water)
- No chance of future breakdown (leaching into stormwater)
- Better uniformity and pile anchorage (see table below)
- Better interaction with seam glue; (higher joint strength)  
(Requirement >25N/100mm: Latex 80N vs PU 190N)
- Better for the environment -> .....

SAMPLE	RESULT (N)
5815 - Tuft Withdrawal 'PU'	57.0 N
5816 - Tuft Withdrawal 'Latex'	35.3 N





# ProPlay Shock pad




- ProPlay-Sport, Pre-formed shock pad, long-term shock absorption
- 25 year warranty, 100 year life expectancy
- PEX foam is closed cell (not absorbing water) and cross linked (3D) No leaching -> SGS intron report available (DIN18035-7)



# ProPlay Shock pad



				FIFA Approval requirements		P = passed F = failed	
Property	Condition		Test Results	One Star	Two Star	One Star	Two Star
 <b>Shock absorption</b>	Initial, Un-aged	Dry	67	55 – 70%	60 – 70%	Passed	Passed
		Wet	66			Passed	Passed
	After simulated wear	5' 200 cycles	64				Passed
		20' 200 cycles	63			Passed	
	40°C		69	55 – 70%	60 – 70%	Passed	Passed
	– 5°C <sup>(1)</sup>		62			Passed	Passed

ProPlay-Sport: Fully tested; wet, dry, wear and temperature

Sportslabs report: Saltex Drop Fibre 40mm



# ProPlay Shock pad



System	Unit	Accuracy	Sample conditioning				
			none	5,000	20,000	40,000	65,000
Proplay Sport 20 in combination with the synthetic turf	%	1%	62	62	62	60	61
Just the prefabricated elastic layer ProPlay Sport 20	%	1%	52	50	50	50	49

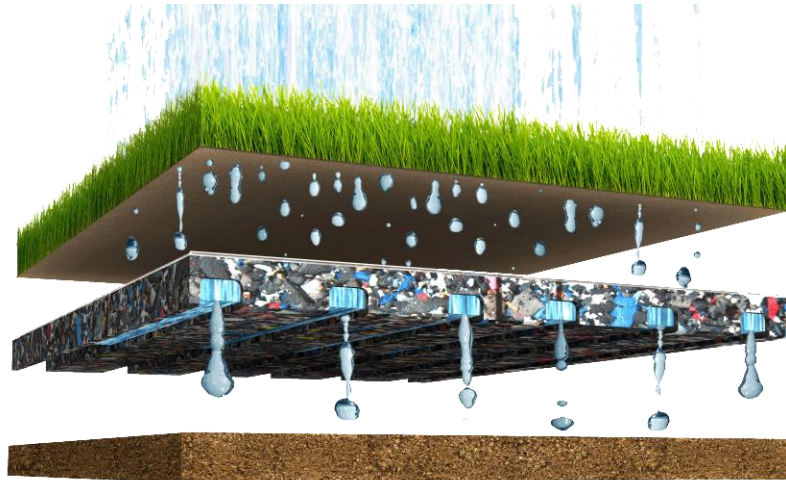
ProPlay-Sport = Long-term consistency

ISP Report: 23056/1





# ProPlay Shock pad



- ProPlay shockpad is also a drainage pad
- Vertical drainage 1776mm/hr
- Horizontal drainage (min slope 0.8%)

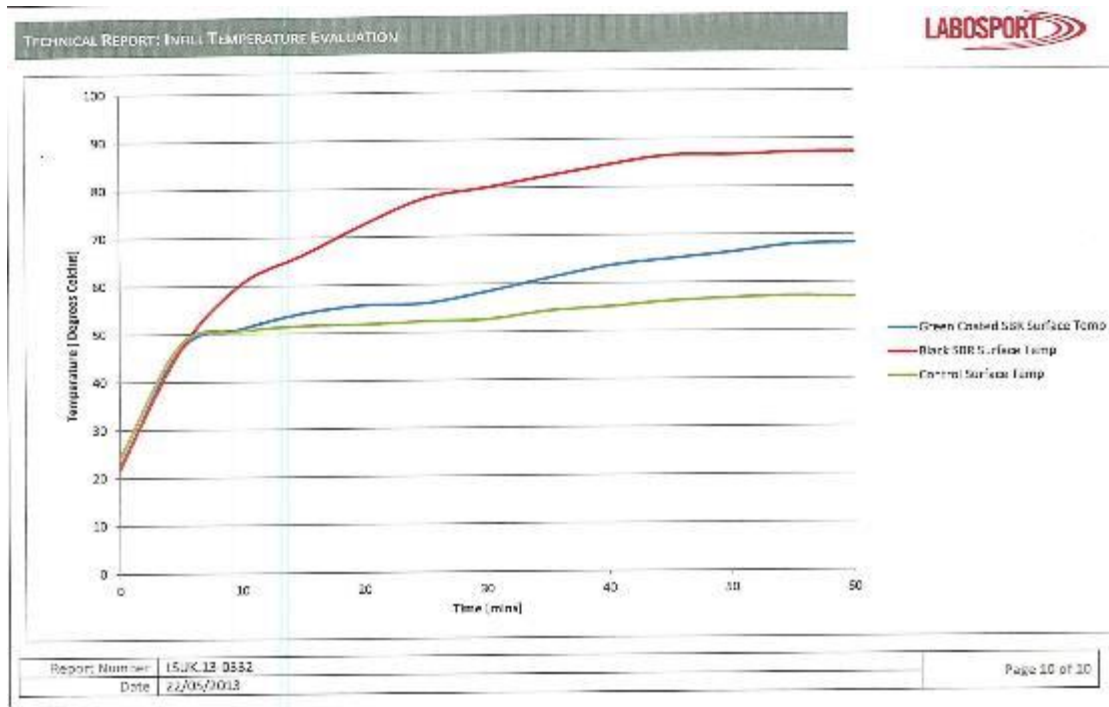
# Green SBR infill



- Color: standard black SBR increases surface temperature on a hot sunny day, therefore green coated SBR is preferred 20degC cooler
- Coated SBR encapsulates the undesirables of raw black SBR (smell, dust and volatile compounds), which reduces the risk of leaching  
Most FIFA certified fields are in-filled with SBR
- 10 year warranty, installations since 2006
- Proven quality, performance, and best value for money
- Fully tested; wet, dry, wear, UV, toxicology and temperature
- Meeting DIN18035-7
  - NF P90-112
  - EN15330-1
  - EN14836:2006
  - LND



# Green SBR infill



Powerfill green coated SBR:

Labosport report: Surface temperature of green coated SBR and black SBR

# Project



## **Project Team:**

FNSW, HGST, Daracon, Aver, Meinhart Engineering, and Taylor Constructions

## **Works Period:**

Project 2013 – 2015, HGST: July 2014 to Feb 2015

## **Design:**

Engineered sub-base, 0.5% slope, subsoil and collector drain pipes, topped with 125mm of specified aggregate, overlayed with Saltex Drop synthetic turf system (synthetic turf 40mm, Proplay shockpad 20mm)

**Certification:** FIFA 2-Star March 2015





# Project (cont.)



## Project Challenges:

- Operating Facility. Outdoor and indoor facilities, and administration operating during construction: Weekly project meetings and weekly coordination meetings.
- Local Residents. Building construction and pitch construction in high density housing (2 years of noise, dust, inconvenience). Operate within DA guidelines with regular mailouts.
- Environment. Overland waterflows to meet BCC environmental regulations. Capture, filter and discharge stormwater through lake. Protect waterflows during construction.
- Project Design Brief. Assumed pitch could be flooded to protect Home of Football 'HOF' from large flood event. Assumed pitches would drain via surface runoff. Pitch design incorporated in Design Brief and DA



# Project (cont.)



## Project Challenges:

- Latent Conditions. Uncontrolled fill (removed, mixed and replaced as engineered fill). Contaminated fill – asbestos (quarantined, tested, encapsulated)
- Interface of pitch construction with HOF construction. Two principal contractors, builder and pitch contractor, shared access, concurrent works, shared works (stormwater, lights etc.). Designated work areas and regular communication.
- Limited Budget. Slope of pitches consistent with existing site levels, topsoil retained onsite, uncontrolled fill reworked as controlled fill, contaminated fill retained on-site (cell), proactive management of shared works.



# Thank you

