



A WORLDWIDE LEADER IN FLOORING & SPORTS SURFACES



Tarkett Group Presentation - October 2018



TARKETT SPORTS, A WORLD LEADER IN SPORTS SURFACES

TARKETT SPORTS OFFERS A COMPLETE PRODUCT RANGE FOR A VARIETY OF SPORTS

PLAY TO WIN

















THE DESIGN BRIEF...

- Consider the impact of microplastics on the surrounding environment of a football field
- Develop a football turf system which would address the trend of minimising infill
- Consider the impact of snow removal, usability in winter months
- Ensure a durable, resilient, high quality sports turf





A SMART SOLUTION

The infill supports the fiber and affects the traction between artificial turf system and the athlete's shoe





Support fiber will be formed into a kind of spring design and replace the function of the infill.

On an 8000 m² sports field over 500 Million of this springs are used instead of infill





PUREFIELD - A SMART SOLUTION









the customary measure of strength of a fiber usually defined as the ultimate (breaking) force of the fiber







- Polyethylene sensitivity against sunlight (UVA / UVB)
- UV stabilizers are necessary to protect PE against sunlight
- UV stabilizers are very expensive, approx 25% of the raw material costs
- The norm (EN 15330-1) describes the UV test in EN 13 864
- For this test the fiber has 5000 hours UV radiation
- After this aging, the tenacity must be minimum 50% reduced
- However... if the fiber loses 50% tenacity, the fiber is not usable any more













Competitors





Competitor fiber after 30,000 lisport cycles

FieldTurf after **500,000** lisport cycles







LIFECYCLE COSTING



- What this means...
- Extended lifespan of turf
- Integrity of carpet
- Extended performance
- Higher initial outlay... but...
- >50% greater return





PUREFIELD NON-GRANULATE TECHNOLOGY



About 8000 tons of infill is purged into the water systems, ending as Microplastics in the oceans





THE ULTIMATE

A SMART SOLUTION

For an 8000 m² artificial turf 60mm with infill...

- Approximately 8,000 kg of Latex (coating)
- Approximately 16,000 kg of thermoplastics (carpet carrier fabric and fiber)
- Approx. 80,000 kg of filling granules (cross-linked elastomers or polyethylene)
- Together about 104,000 kg, which must be disposed, or recycled
- The alternative systems without infill granules
- Reference field in Abtsteinach only 32,000 kg of recyclable polymers
- Saving of 72.000 kg Polymer





FC ABTSTEINACH, GERMANY



FIFA Quality Pro performance

	Natural Grass	EPDM System	SBR System	Abtsteinach	FIFA Q-Pro	EN 15-330-1
Torque (Nm)		43 Nm	41 Nm	37 Nm	32-43 Nm	25-50 Nm
Force reduction (%)	32%	63%	65%	66%	62-68%	55-70%
Vertical deformation (mm)	4,2 mm	5,95 mm	5,88 mm	8,5 mm	6-10 mm	3-9 mm



THE ULTIMATE SURFACE EXPERIENCE

PLAY TO WIN

NEXT STEPS

- Player ~ surface interaction
- Ball ~ surface interaction
- Traction, grip and stability underfoot
- Skin friction and abrasion
- Recycling old fields
- How do we get there?
- Materials development through fiber innovation
- System development through turf structure evolution











