



Athens Olympic Tennis Centre.

 Athoc / G. Prinos

Olympic green

There is perhaps no greater advertisement in the world of sports than to have your product on prominent display during an Olympic Games. Just as the world's elite athletes convene for competition, so will the handiwork of the best of the best makers of artificial sports surfaces. These premier manufacturers will realise this quadrennial bonanza when the Games return to their roots in Athens for the XXVIII Olympiad. From volleyball to field hockey to athletics, venues will be utilising the latest synthetic materials technology has to offer. Considering the stakes, there can be little doubt that the competition to win bids as Olympic vendors is nearly as keen as in the events themselves.

"Athens 2004 has worked in co-operation with the International Olympic Committee and International Sports Federations to select the appropriate competition surfaces for Olympic competition venues and ensure the best conditions for the world's athletes," says Ioannis Giannouris, manager of Olympic

venue operations. "Each venue adheres to strict guidelines in order to meet international competition standards, and will be tested under actual competition conditions."

Italian input

Italy's Mondo company, in business for 56 years, has become virtually synonymous with Olympic track events. This August's spectacle will mark the eighth time it has supplied athletic tracks for the Olympic Games. Mondo is also supplying elastic surfaces for the volleyball and boccia competitions. The company, based in Alba, is as global as the Olympics itself with installations in more than 136 countries. Astute track fans may also know Mondo as the ubiquitous supplier of running surfaces for a plethora of international events such as the World Indoor and Outdoor Championships (Maebashi and Seville in 1999, Lisbon and Edmonton in 2001, and Birmingham and Paris in 2003).

"More than 200 world records and uncountable personal bests and national records have been set on our material,"

Mondo spokeswoman Barbara Genta says matter-of-factly.

With all its Olympic Games and other event credentials, the company has plenty to brag about, especially when Olympians commence running faster, jumping higher and throwing farther. Here's a look at some details of its construction:

Sportflex Super X is the name of the material used for its tracks. It's a prefabricated surface based on calendared, vulcanised and stabilised rubber, which the company describes as polysoprenic. Genta says Sportflex Super X is made of a "homogenous material of suitably differentiated resistance and compliance which have been designed to guarantee athletes the best conditions of use." Tracks are manufactured in rolls of various thickness and formats. Mondo produces its track material in a range of colours that have been developed for long-term resistance to both ultraviolet rays and differing climatic conditions.

Zero mowing

One of the biggest evolutions or perhaps revolutions is a better word in

synthetic sports surfaces is in artificial grass. Now looking more real than ever, fake grass is taking hold, especially across the USA. Aesthetics notwithstanding, two primary drivers are propelling this trend: greatly reduced installation costs and the advent of products perceived to be much less injury-inducing. There's an ecological benefit from the reduced maintenance of such fields, namely savings on water, a particular attraction to regions with dry climates. Savings add up. Today's fields have a 10-year life span. That's 10 years without spending on irrigation and fertiliser. And don't forget: no mowing required.

The US synthetic grass manufacturing "landscape" is shifting just as the sector is taking off. Southwest Recreational Industries, also known as SRI Sports, the current manufacturer of the venerable Astroturf product, filed for bankruptcy earlier this year. The industry's remaining big names, including FieldTurf, Sportsex and Sprinturf, figure to benefit as they pick up SRI's existing contracts and future business.

Industry observers say SRI's demise should serve as a 'wake-up call' for manufacturers. That is: if the owner of the sector's biggest name can fall, so too can your company.



Around 30,000 lbs (13,600kgs) of Ten Cate Thiolon yarns went into the Baltimore Ravens new playing area.



Synthetic grass has certainly come a long way since its early days when it was the subject of much ridicule, even spawning one of sports' most famous quotes in the late 1960s. Colourful major league baseball slugger Richie Allen of the Philadelphia Phillies once lamented, "If a horse won't eat it, I don't want to play on it." Well, horses still won't eat today's turf, but today's athletes seem to like it.

Dutch-based Ten Cate Thiolon, part of the massive Royal Ten Cate technical textiles conglomerate, manufactures the high-tech yarn used by many synthetic turf manufacturers. A recent installation using Thiolon grass is on the field used by the NFL's Baltimore Ravens.

"The industry changed about four years ago when companies started making synthetic grass systems with infill sand and rubber," says Ian Petree, managing director of TC Thiolon USA, Thiolon's North American manufacturing arm in Dayton, Tennessee. "Years ago, artificial fields were made of nylon or polypropylene and were abrasive. Today, they are made of polyethylene."

Abrasion switch

In the 1970s, there was a huge movement by professional and college football teams to switch from grass to the artificial stuff. During the 1980s, many teams switched back to the real thing, hoping to curtail a rise in player injuries. But in the late 1990s, technology delivered what seems to be a product that solves many of the historical problems. Today's fields are softer and are constructed to allow the release of sports shoe cleats under normal pressure, similar to natural grass.

One of the acknowledged developers of the improved technology is Montreal-based FieldTurf, led by former Canadian Football League quarterback John Gilman.

"Obviously, the key here is abrasion," says FieldTurf spokesman Darren McGill.

"We've done independent testing and not only are we safer than traditional Astroturf, but we are safer than grass. We've got industry numbers to prove that."

Artificial fields are more affordable today thanks to technology. The average cost of a field is \$500,000 compared with \$1 million just a few years ago.

Thiolon's Petree estimates between 400 and 500 football, baseball, soccer and other types of fields were installed by professional teams, universities, high schools and various government jurisdictions last year. "That figure may rise to about 800 in 2004", he says. "Installations grew by 25 percent last year and this year's increase will be much greater."

Contracts for high-profile fields continue to make industry news. FieldTurf will be installed at Paul Brown Stadium, home of the NFL's Cincinnati Bengals for the upcoming season. Sportsex will put its Momentum turf on the football field at the University of Southern Mississippi. But while these types of deals are nice publicity, manufacturers say they depend on the much greater business from high schools, community colleges and municipalities.

European potential for Olympic glory

But the European market has even greater potential. Petree opines that the US is about two to three years behind Europe in acceptance of such fields.

"We at Thiolon in Tennessee and Holland are at the forefront in being the biggest yarn supplier," Petree says. "We are spending in excess of \$2 million in research and development and are already working on products that won't be

	NATURAL GRASS	FIELD TURF
Initial Capital Cost	\$380,000	\$572,000
New Sod, Drainage and Irrigation		
Year 1	\$380,000	\$572,000
Year 2	\$380,000	\$572,000
Year 3	\$380,000	\$572,000
Year 4	\$380,000	\$572,000
Year 5	\$380,000	\$572,000
Year 6	\$380,000	\$572,000
Year 7	\$380,000	\$572,000
Year 8	\$380,000	\$572,000
Year 9	\$380,000	\$572,000
Year 10	\$380,000	\$572,000
Year 10	\$905,000*	\$572,000**

* Does not include downtime for re-sodding, seeding or un-playable field conditions

** Unlimited play

FieldTurf versus natural grass: 10 year cost analysis based on field size of 80,000 square feet.

Source: FieldTurf

launched until 2007. No other company is doing that level of R&D."

The booming field industry is good news for Thiolon. A US football field uses about 30,000 pounds (13,600kgs) of yarn. The company's two factories are now churning out more than 60 million pounds (27.2 million kgs) of yarn per year.

Thiolon yarn will also be underfoot in Athens this August during the field hockey competition at the Olympic Hockey Centre. Tarkett Sports, a division of the German Tarkett Group, installed the pitches with its product made of Thiolon yarn. The facility boasts three fields: two dedicated to game play and one for warm-ups. Especially popular in Europe, field hockey is played almost exclusively on synthetic surfaces.

The Athens hockey installation has already drawn rave reviews from hockey officials and those who will play on it.

"We have spoken to players, coaches, officials and escorts and they have all been extremely enthusiastic about the quality of the pitch, the functionality of the other venue areas, and the services from the organisers," says Dutch President of the International Hockey Federation and IOC member Els Van Breda Vriesman. "The image presented by this central pitch is a very pleasant surprise for all us FIH people because the general information we had received about the Olympic preparation referred to significant delays in the completion of Olympic works. What we would see when we came to Greece was anybody's guess. These great venues will certainly help this sport to grow in this country. I hope and pray that the Athens Olympic tournament will be held with the participation of the Greek team - at least in the men's category. If this happens, it will bring even more people to the venue and

SPORT	TYPE OF SURFACE	VENUE	CONTRACTOR
Athletics	Synthetic	Olympic Stadium	Mondo
Badminton	Elastic	Goudi Olympic Hall	Yonex
Basketball	Wooden	Helliniko Olympic Complex, Indoor Hall 1 and Olympic Indoor Hall at Main Olympic Sports Complex	Conors & Seicom
Boccia	Elastic	Ano Liossia Olympic Hall	Mondo
Handball	Elastic	Helliniko Olympic Complex, Indoor Hall 1 and Faliro Sports Pavilion	Gerflor
Hockey	Synthetic Grass	Olympic Hockey Centre	Tarket Sommer
Table Tennis	Elastic	Galatsi Olympic Hall	Gerflor
Tennis	Elastic	Olympic Tennis Centre	DecoTurf
Volleyball	Elastic	Peace and Friendship Stadium	Mondo

will make the Athens Games even more attractive and spectacular."

Said Australia's team captain, Louise Dobson, "It was a very interesting match on a very nice pitch. In fact, the pitch is one of the best I've ever played on."

Industry organises

Highly competitive and contentious, the synthetic grass sector is nonetheless growing fast. Its US manufacturing centre is in the Dalton, Georgia, area, not coincidentally, the world's indoor carpet capital. About a dozen US companies manufacture turf and more than 20 market it and sell it.

The sector has grown so fast that the Synthetic Turf Council came into being last year to establish guidelines for the industry, compile statistics and even act as an arbiter when disputes arise among competitors. A council meeting last December was the scene of a settlement of a dispute between two of the industry's heavyweights, FieldTurf and Sprinturf.

The list of specialist contractors operating in Athens.

Source: Athoc

Veteran carpet industry man Ron Vangelderden is president of the Dalton-based council. Vangelderden previously spent 20 years as executive director of the Carpet & Rug Institute and came out of retirement to head the new organisation. The council represents the entire industry including architects, engineers, suppliers, manufacturers and maintenance personnel. Vangelderden says he hopes over time to get a firmer grasp on just how large the US industry is rather than relying on estimates. He says there's no doubting the advantages of today's synthetic grass surfaces.

"These fields are always ready to play," Vangelderden states. "That's as much a factor in the industry's growth as anything."

While growth has been fast, Vangelderden says there still is a psychological reluctance among many in American sports to eschew real grass. But, he says, "That argument is quickly disappearing."

Vangelderden echoes Petree's thoughts that the Europeans are pushing the pace. He predicts that all rugby fields in Europe will go synthetic by 2006.

A potential growth market is in golf courses. Artificial grass has long been used on driving ranges and putting greens, but now, Tour Turf, a division of FieldTurf, is providing its product for an entire golf course near Durango, Colorado. The course is under construction and may see its first play later this year.

Not surprisingly, China has plunged into the market in a big way. Petree says while three years ago there was no market in China, today there are about 20 companies manufacturing there.



The Mondo Super X performance track installation in Paris. This picture was taken during the 2003 IAAF World Championships outdoor track and field competition.

Mondo