



All you need to know about synthetic tennis courts

hen it comes to grass tennis courts, synthetic turf has a hard act to follow. Purists who follow play at Wimbledon, for example, love the fast game that natural grass provides, the fact that the surface stays cooler than many others, and the fact that there isn't any glare, even on the brightest day. It is, they believe, the way the game of tennis was meant to be played.

Looking beyond all the things the tennis idealists value, however, grass tennis courts have the same limitations as other natural athletic fields, including the need for daily care and regular maintenance, and the requirement that they be allowed to

rest between periods of heavy use. Note: Unlike many athletic fields, tennis courts can be rotated to make use of areas that are still playable, while allowing worn areas to rest. Like natural fields, however, a heavy rain can put grass courts out of action tem>> TURF IS BEING USED to cover cracked courts and make them playable again without total reconstruction. These before and after illustrate such a transformation. Photos courtesy of Pro-Sport Construction, Inc., Devon, PA.

porarily, since trying to rush them back into use results in a muddy surface that can be dangerous to the athlete and damaging to the grass.

It would seem, then, that artificial turf would be a runaway favorite as a surface in the U.S. But we don't hear as much about the use of artificial turf in tennis installations as we do in field sports, such as soccer, football, field hockey, lacrosse and more. Why is that?

In some systems, the turf is manufactured with a cushioned backing, or it is installed over a cushion mat to provide greater player comfort.

"One of the primary advantages of a sand-filled synthetic turf is the softer, more forgiving nature of the surface but with lower maintenance than expected on most soft courts," says David Marsden of Boston Tennis Court Construction Company, Inc. in Hanover, MA.

In some systems, the turf is manufactured with a cushioned backing, or it is installed over a cushion mat to provide greater player comfort. (The use of such cushioning will affect the final price, as will the quality of the system and the fill).

The good things about synthetic turf in tennis courts are similar to the good things in fields, says Rob Werner of Sportsline, Inc. in Exton, PA. "The fibers will be softer and the infill will be better."

FOR DIFFICULT INSTALLATIONS

In addition, synthetic turf is excellent for installations that are difficult in other circumstances.

'Sand filled synthetic turf courts are a good solution for rooftop installations," notes Rick Burke of NGI Sports, Div. of River City Athletics, LLC in Chattanooga, TN." They can be installed without heavy equipment, and materials are easily trans**No question about it:** an artificial turf surface (when built well) will drain beautifully and have a deep, green color without the wear at the baseline and in other spots common to natural grass courts.

ferred to the roof deck. They are loose-laid so construction joints are easily tended to. Because the finished weight is between 3 and 5 pounds, there is sufficient ballast so the courts do not lift. Also in situations where there is moisture, the courts are not affected by hydrostatic pressure or damage from moisture release from the pavement."

One of the charms of infilled turf systems for tennis courts is that they can be laid over existing asphalt or concrete pavements, allowing for reconstruction of badly weathered or cracked courts. It is essential to note, however, that a turf court is only as good as the pavement it is laid on; therefore, a cracked pavement must be leveled to insure planarity. If it is not, the turf will wear unevenly and the cracking will be visible as uneven areas in the playing surface. Once that type of wear becomes apparent, the surface must be completely replaced; resurfacing is not a possibility.

"The newer arena we now consider in the national turf marketplace is the municipal, cracked hard court market. Some of these entities, like boroughs, swim clubs and townships may not have the funding to repair hard courts. They now do consider synthetic turf for these areas for tennis and soccer surfaces for youth," adds Rob Werner. "Also, with the USTA QuickStart format, synthetic turf will be a great market to retrofit smaller kids' areas, and to provide portable, rollout turfs as a solution for parking lot areas. It's easy to install and to use for other sports, including golf."

According to Burke, a synthetic turf tennis court surface provides an enjoyable experience, and can be adjusted to provide the type of play the owner wants it to have.

"Generally, most players enjoy the comfort of play," he states. "The surface provides great shock attenuation. Most of the shock from impact is not returned to the body. Because the surface is loose granules, there is great foot release without foot-lock. There are three basic options for playability: First, a tight nap, short pile with the infill

below the tip of the fiber for a quick grass court type play. Second, a more open pile with sand just below the tip of the fiber for a medium-paced play. Third, a shorter pile with a colored infill over the top of the fibers for a clay court slide and slow play."

But according to the book, *Tennis Courts: A Construction and Maintenance Manual*, adjustments have to take place on the part of the athlete as well:

"Players sometimes complain that the infilled turf surface is so unique that it requires a considerable adjustment to their game. Also, unless the surface is well-groomed, any imbalance of fill will result in irregular ball bounce and non-uniform traction."

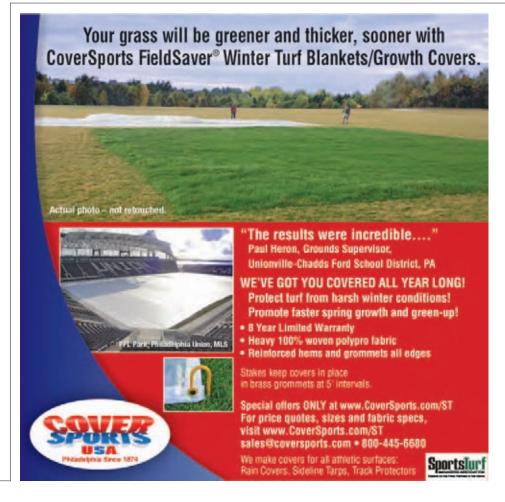
As with turf facilities used for other sports, there are multiple advantages, in-

cluding the ability to permanently line the facility for play, and not needing mowing or weeding. There are also the disadvantages including the warmer playing surface, the need to keep the turf clean of impurities, and the higher cost to repair damages caused by improper use, vandalism, etc. And while NFL players have been surveyed regarding their preferences of natural vs. synthetic fields, tennis players have never been given such a poll, so player opinion data isn't available.

MAINTENANCE: THE COMMON DENOMINATOR

No question about it: an artificial turf surface (when built well) will drain beautifully and have a deep, green color without the wear at the baseline and in other spots common to natural grass courts. But like its natural counterpart, it's not going to stay in peak form without work on the part of the owner.

Preseason maintenance will include



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>> THIS COURT has a viewing area, as well as a pergola and attractive landscaping. Photo courtesy of NGI Sports, Div. of River City Athletics, LLC, Chattanooga, TN.



>> THIS TURF COURT replicates the look of Wimbledon on a synthetic court for a private residence for an owner who wanted tennis and other sport use. Note the two-tone "mowing pattern" effect. Photo courtesy of Sportsline, Inc., Exton, PA.

looking for standing water (a sign of nonfunctioning drains) that can result in slick areas, and ascertaining that playing lines are still bright and visible.

Regular maintenance includes brushing to make sure infill is distributed consistently over the court surface, and to keep the turf fibers standing up. Periodic watering will assist in compacting the fill uniformly. Club courts should be brushed every week to maintain optimal playing quality.

Regularly remove debris including leaves, pine needles and more by using a leaf rake and shovel, a leaf collector or a blower. Courts may need to be checked for torn or loose seams, repaired as necessary, and to have algaecide and/or fungicide applied as necessary.

After a heavy downpour, check the surface for bubbles that may develop, indicating that water has managed to get under the carpet. A builder can advise you on the best course of action in such a case.

The Tennis Courts book advises:

"To prevent maintenance problems, require players to clean their shoes before entering the court. No food or drink, except water, should be allowed on the court surface. Any spill should be cleaned immediately with plain water or a diluted cleaner and rinsed thoroughly. Absolutely no smoking should be permitted in the court area. Burnt areas on the carpet are unsightly. For superficial burns, the carpet pile can be carefully clipped below the blackened or melted tips. For larger burns, the area may need to be replaced and patched. Contact the contractor for assistance."

The book's Annual Maintenance Planner notes that owners should plan to resurface these courts every 12-20 years.

Like all other tennis courts, a turf tennis court should drain in one true plain. In order of preference, it should drain from side to side, end to end, or corner to corner. Like asphalt, concrete and grass courts, its finished slope should be between .83% (1:120) to 1% (1:100).

The first mistake an owner can make, say builders, is assuming that an artificial turf tennis court will produce the same game as a grass court. The second is that it requires no maintenance. Neither is true. Artificial turf produces its own unique

game, and accordingly, it takes a unique upkeep regimen.

"Depending on the region, always look for moss and algae growth," says Rick Burke. "Courts should be groomed with a drag mat regularly. I recommend that the courts be opened in the spring by a qualified contractor to prepare them for the season. We have a detailed maintenance manual for the owner."

Some builders outside the U.S. say that artificial turf tennis courts are more popular in Europe than in the United States. Lacking a demographic study, however, that's a difficult claim to verify. What we do know is that most of the natural grass courts in the U.S. are either privately owned, or are in clubs. Artificial turf can be used in both these settings as well. However, because of the higher initial installation cost than a standard hard court, and because of the inability to repair extensive damage without total replacement, it is not recommended as a tennis surface in installations that will not

be supervised, or which might be subject to vandalism.

As with all sports surfaces, owners are advised to work with a professional partner who has experience with tennis courts. There isn't one right answer, only the right answer for a given installation, and the grass is always greener on your side of the fence if you feel you've made the right decision.

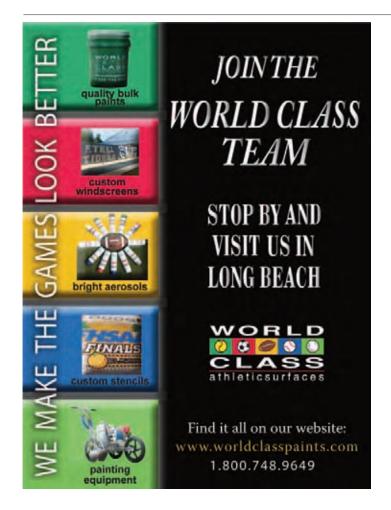
"We replicated the look of Wimbledon on a synthetic court for a private residence for an owner who wanted tennis and other sport usage," says Werner. "It has turf in that same 'mowing pattern' two-tone green surface. We like to say we brought Wimbledon here to the states without the dirt-like play Wimbledon has."

"Regardless of its use, there are basic advantages and disadvantages to both artificial and natural turf," says Norris Legue of Synthetic Surfaces, Inc. of Scotch Plains, NJ.
"We think that natural grass is preferred when there is little or no heavy foot traffic, when maintenance costs are low, when there

is plenty of water for irrigation, and when run-off of fertilizers and/or pesticides is not a problem. Conversely, artificial turf has the advantages of being able to withstand heavy traffic, to require less maintenance, and to not need mowing, water, fertilizers or pesticides. Beauty is always in the eyes of the beholder when choosing natural versus artificial turf."

Note: The American Sports Builders Association (ASBA) is a non-profit association helping designers, builders, owners, operators and users understand quality sports facility construction. Available at no charge is a listing of all publications offered by the Association, as well as the ASBA's Membership Directory. Info: 866-501-ASBA (2722) or www.sportsbuilders.org







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