

Fiber Density Key to Field Quality and Durability

The fibers or “grass” of a synthetic turf system are the heart of the surface.

They are the look and the feel of the system, but more importantly they play a vital role in determining the overall performance and durability of your field.

The amount of fibers – or density – used to make the field dictates how soft, playable, and durable the field will be. It is one of the most important features in choosing a synthetic turf system and should be evaluated carefully.

If the density is low, the system won’t hold up as well, or as long, nor will it offer the same level of performance or safety characteristics a denser system provides over many years.

That’s why Sportexe’s Momentum™ and OmniGrass® infill systems are made up of 41 or 51 ounces of fiber per square yard. Each of these systems feature the same number of tufts and they are available in two different pile heights.

Our fields provide more of what you pay for – top quality yarn – woven into a more valuable product that behaves more like natural grass.

But the proof really lies in testing, where a direct correlation between fiber density and surface performance and safety characteristics has been determined.

Adopted from the U.S. Department of Housing and Urban Development (HUD) is a testing method commonly used to determine fiber density – a test that has shown a field must deliver a higher fiber density value to provide optimal performance, safety, and durability. In fact, HUD strongly recommends a higher density value in order to increase the number of years of durability.

The math that determines fiber density value, as developed by HUD:

$$\text{DENSITY} = \frac{36^* \times \text{WEIGHT (OUNCES OF FIBER PER SQ. YARD)}}{\text{PILE HEIGHT (HEIGHT OF "GRASS" IN INCHES)}}$$

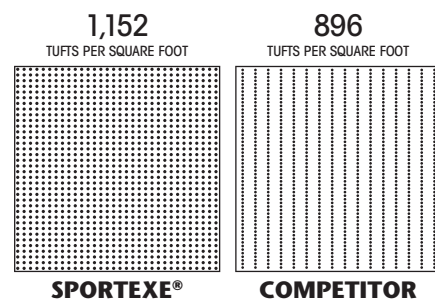
*This number is a constant factor per U.S. HUD equation.

A Word about Tufts



When it comes to constructing a turf system, tufts of fiber are brought together in rows, similar to how grass grows. Each synthetic turf company constructs its turf using rows of **tufts**; the difference is in how many tufts go into each system. We believe more is better, so each of our infill systems are comprised of the following:

Every square foot of Sportexe® Momentum™ and OmniGrass® features 32 rows of tufts. Each of these rows boasts 36 tufts of grass. 32 multiplied by 36 equals 1,152 tufts of grass per square foot.



Our competitors, on the other hand, use 16 rows of 56 tufts, for a total of 896 tufts per square foot.

**That means,
Sportexe’s systems
contain 256 more tufts
per square foot!**

On an average
85,000 sq./ft. field
Sportexe systems contain
21 MILLION MORE TUFTS
than our competitors

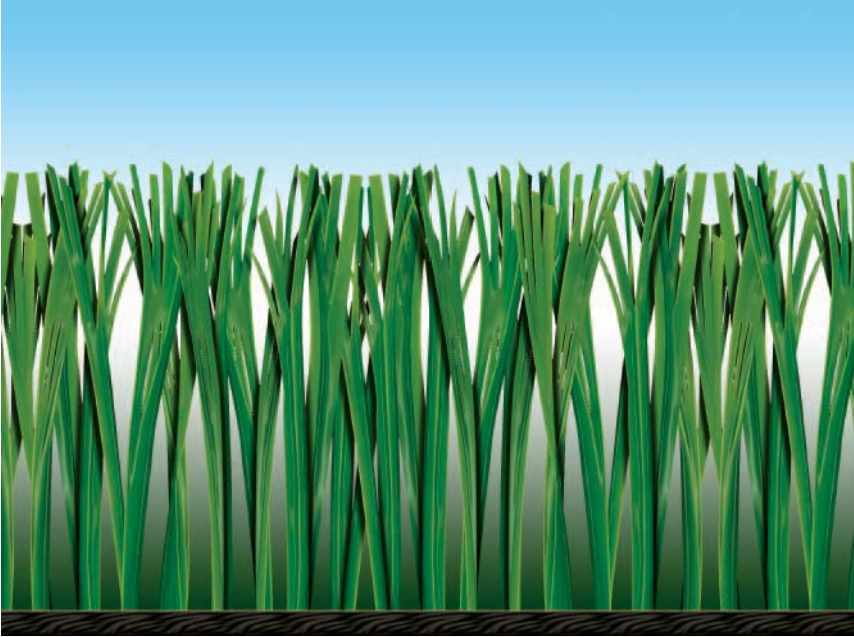
Sportex's systems far exceed the fiber density recommendations for durability, safety, and performance

Sportex® 51 oz. Systems

$$51 \text{ oz.} = \frac{36 \times 51}{2.5} = 734.4$$

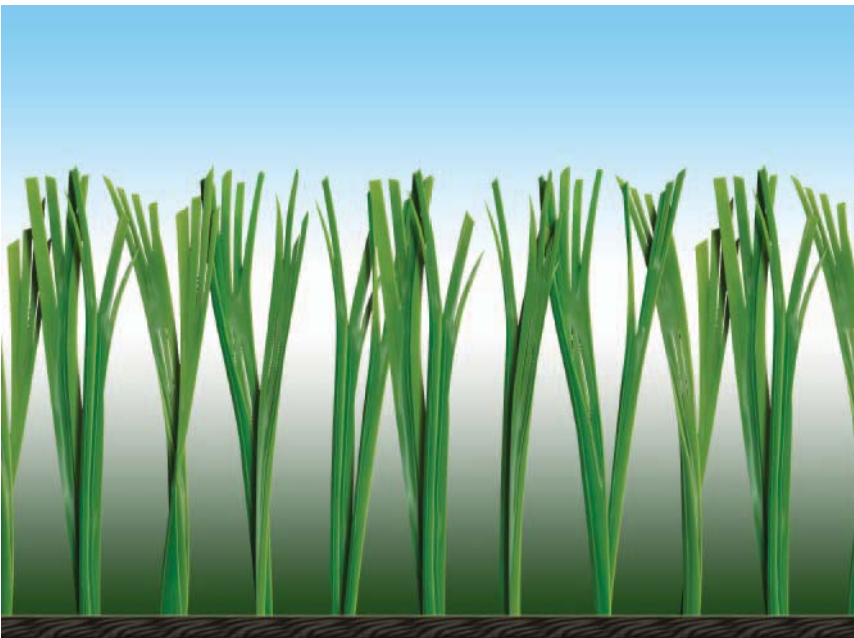
Sportex® 41 oz. Systems

$$41 \text{ oz.} = \frac{36 \times 41}{2} = 738$$



Competitors' systems come up short of meeting density recommendations:

$$33 \text{ oz.} = \frac{36 \times 33}{2.5} = 475.2$$



Beyond the Numbers to the Actual Game

So what does a higher fiber density value do for the people who actually use the field?

- It stabilizes the infill so the field maintains its consistency, even through player cuts, impact, high traffic areas (sideline, hash mark, goal, etc.), yard line stripes for marching formations, you name it.
- More fibers ensure the field maintains its integrity better over time and use – no holes, matting, or bare spots. **This means the field is more durable and will last longer.**
- It allows players to train and compete “in” the grass rather than “on top” of the surface.
- It helps ensure true ball response and sure-footed traction in all directions.
- It contributes to a more uniform, predictable place to play, which is inherently safer with higher performance.

The bottom line:

Better fibers and more of them are key building blocks to a better turf system.

For more information about our fiber technology, our advanced R&D program, or our full line of field and golf products, we invite you to visit us at

www.sportex.com
or
1-866-935-7100

We would love to learn how we can be an asset to you as you embark on your next sports facility project!