The FieldTurf Difference

FieldTurf’s patented infill system was designed to provide grass-like performance. Its engineering combines a layered silica sand and cryogenic rubber system to provide a solid, stable and shock absorbing surface. Two significant differences between FieldTurf and all other artificial turf products are its infill weight and the high quality materials used.

A typical FieldTurf full sized field contains 800,000 lbs of infill. That is $40,000 lbs more infill mass than a typical all-rubber field. Unlike the ambient rubber used in most competitive systems, FieldTurf’s cryogenic rubber is smooth sided and therefore does not attract air bubbles. The sharp edges of shredded ambient rubber tend to attract air bubbles, causing the rubber to float and migrate. Testing proves that, unlike FieldTurf, lightweight all-rubber systems tend to easily migrate in the rain and regular play creates divots and changes in infill level. This infill variation significantly impacts the safety of the turf system.

What takes place on the surface affects the surface. A field that is used once every few weeks can be kept in pristine condition by maintenance prior to the big game. But a typical field has to endure marching band practice, gym classes and a variety of other sports day in and day out - and still be ready for the big game.

FieldTurf provides the stable, resilient surface that not only stays put, but also provides the proper energy restitution and shock absorption (Gmax). The FieldTurf engineered system is truly the all season, all purpose surfacing solution for any school or facility.

Head Impact Response Notes

In helmeted tests, FieldTurf showed the lowest headform Gmax. In bare head tests, FieldTurf showed the lowest headform peak acceleration Gmax. At the 4ft. (122 cm) drop heights, the Gmax response is 98% higher at 10mm of infill depth than at 40mm depth. With increasing drop height, the Gmax is dominated increasingly by the head itself, and less so by the infill material. At the 8ft. (244 cm) drop height, the Gmax response is only 22% higher for the 10mm depth than the 40mm depth. Increased infill depth has a positive benefit towards bare head impact with the ground.

Lightweight all-rubber infill is easily dispersed, leading to unstable footing

Measurements taken across an all-rubber field show the effects of play on infill depth.
Traction of Cleated Shoes On Natural and Artificial Turf Football Surfaces

The following test results prove that FieldTurf provides the most traction for improved performance and optimal release for a safer playing surface. In regards to reducing the number of game-related, high school football injuries, current findings suggest an advantage in selecting FieldTurf over Natural Grass.

Testing

INJURY INCIDENCE, ETIOLOGY, AND SEVERITY OF GAME RELATED HIGH SCHOOL FOOTBALL INJURIES ON FIELDTURF VERSUS NATURAL GRASS:

New England Journal of Medicine - October, 2004

Over a five year period of competitive play, significant differences in the incidence, type and severity of game-related injuries were observed between playing surfaces. In regards to reducing the number of game-related injuries, current findings suggest an advantage in selecting FieldTurf over Natural Grass.

Comparing The Head Impact Response of Three Artificial Turf Systems

Laboratory impact tests compared the head response of three artificial turf systems: the FieldTurf system; a system comprised of rubber and sand infill; and a system of all-rubber infill.

Drop tests were done from various heights, with impacts to the rear of an instrumented anthropomorphic mannequin headform. The greatest difference was observed at the lower drop heights.

Peak headform acceleration was recorded for both helmeted and bare head hits. In helmeted tests, FieldTurf showed the lowest headform Gmax. In bare head tests, FieldTurf showed the lowest headform peak acceleration Gmax.