

HEAD-TO-TOE ATHLETE APPROACH

SHAW SPORTS TURF DESIGNS BALANCED SYSTEMS THAT SUPPORT THE ATHLETE FROM HEAD TO TOE.

ALL OF OUR SYSTEMS ARE DESIGNED AROUND SEVEN CRITICAL PERFORMANCE TESTS.



7%

OF INJURIES ARE
IMPACT RELATED
AND AFFECT
THE HEAD.*

OVER

50%

OF INJURIES ARE
STABILITY RELATED
AND AFFECT THE
LOWER EXTREMITIES.

INJURY DATA OBTAINED FROM: Biocore NFL study on Injury Distribution published in the Wall Street Journal • NCAA Football Injury study produced by Datayls Center for Sport Injury Research and Prevention

*Head injury statistics include player-to-player and player-to-surface. It is commonly accepted that 1 in 4 of these injuries are player-to-surface.

IMPACT

HIC

Head Injury Criterion. Measures the likelihood of head injury arising from an impact with the surface.

GMAX

Measures high impact interaction between the athlete and the surface.

STABILITY

ROTATIONAL TRACTION

Measures the torque required to rotate a set of cleats through a 90 degree turn through the surface.

SHEAR VANE

Measures how stable the field is to resist shearing from movements by players.

REBOUND

FORCE REDUCTION

Measures the amount of the impact force that is transferred to the athlete compared to running on concrete.

VERTICAL DEFORMATION

Represents how much the athletes sink into the surface when running.

ENERGY REBOUND

Measures the percentage of energy returned to the athlete or ball from the surface.

FIELDS DESIGNED WITH SAFETY IN MIND

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▶ WHAT IS PLAYABILITY?

Sports turf playability has been a subjective concept and a representation of “how the field plays.” Historically, it has been hard to determine the playability of a field in an objective, unbiased way.

▶ THE RESEARCH & DATA

Studies reflect that incident of lower extremity injuries is more prevalent than head injuries, however, it's important to design turf systems that address both needs. Shaw Sports Turf set out to understand what makes a great athletic playing surface, including safety for the athlete from head to toe. The goal was to develop not just the best artificial surface, but the best playing surface, period. The research has been a collaborative effort between the Shaw Sports Turf team, industry partners and academic efforts. Seven playability metrics were identified and the playability tool was born.

▶ BALANCING SAFETY & PERFORMANCE

Understanding what the 7 metrics illustrates is important to understanding our approach. **Impact metrics**, or how safe the surface is for contact or a fall, are represented by gMax and HIC (Head Impact Criterion). **Stability metrics**, metrics that are related to an athlete's footing and prevent against lower extremity injuries, are represented by Rotational Traction and Shear Vane. Finally, **Rebound metrics**, metrics that relate to how a surface feels to the athlete under foot, are represented in the chart by Energy Rebound, Vertical Deformation and Force Reduction. The Rebound metrics ensure that the athlete has a surface that will allow for peak athletic performance.

SEVEN METRICS OF PLAYABILITY

A HIGH-PERFORMANCE FIELD THAT SCORES WELL ON THE PLAYABILITY ASSESSMENT TOOL IS A FIELD **DESIGNED WITH SAFETY IN MIND.**

