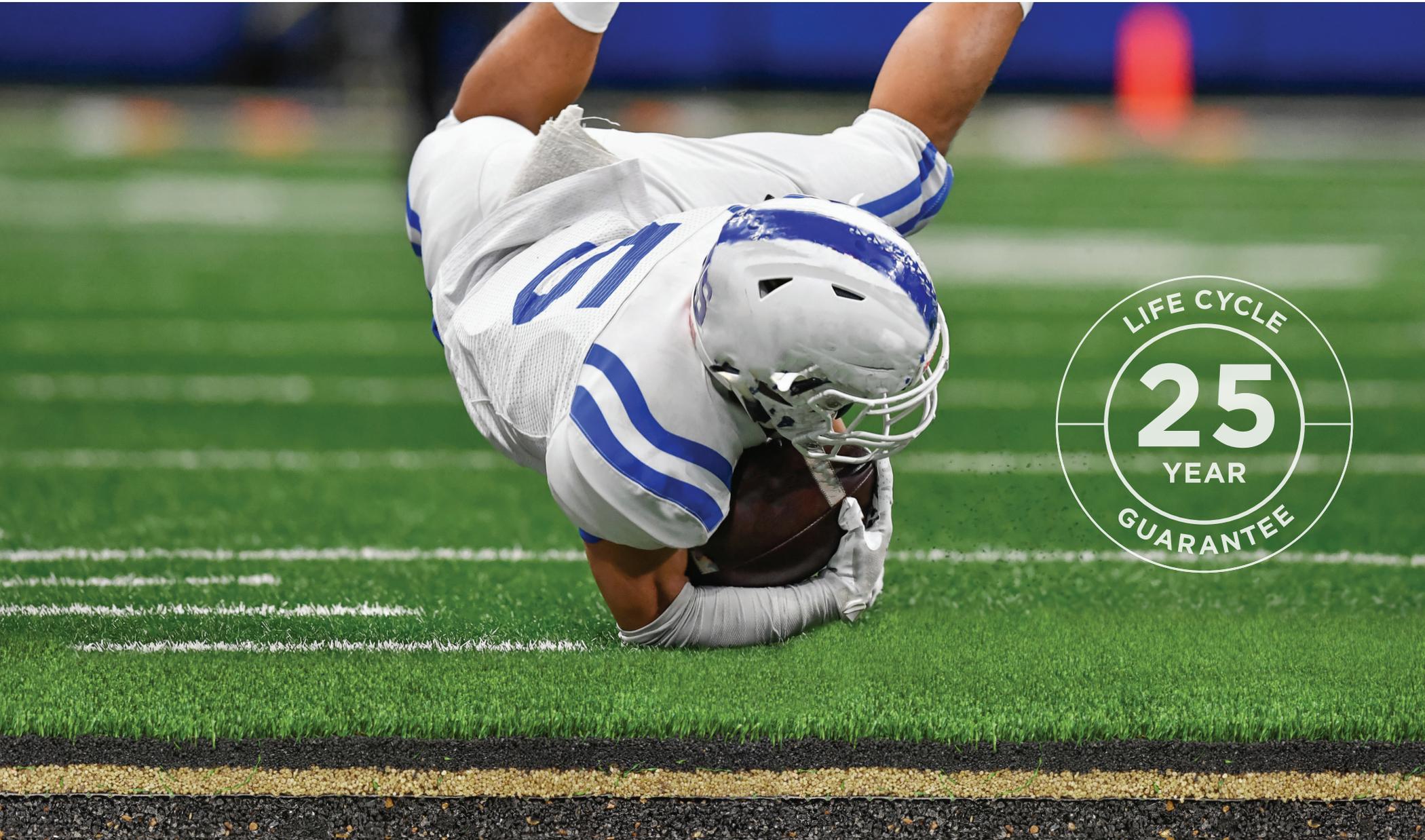


CUSHDRAIN[®]

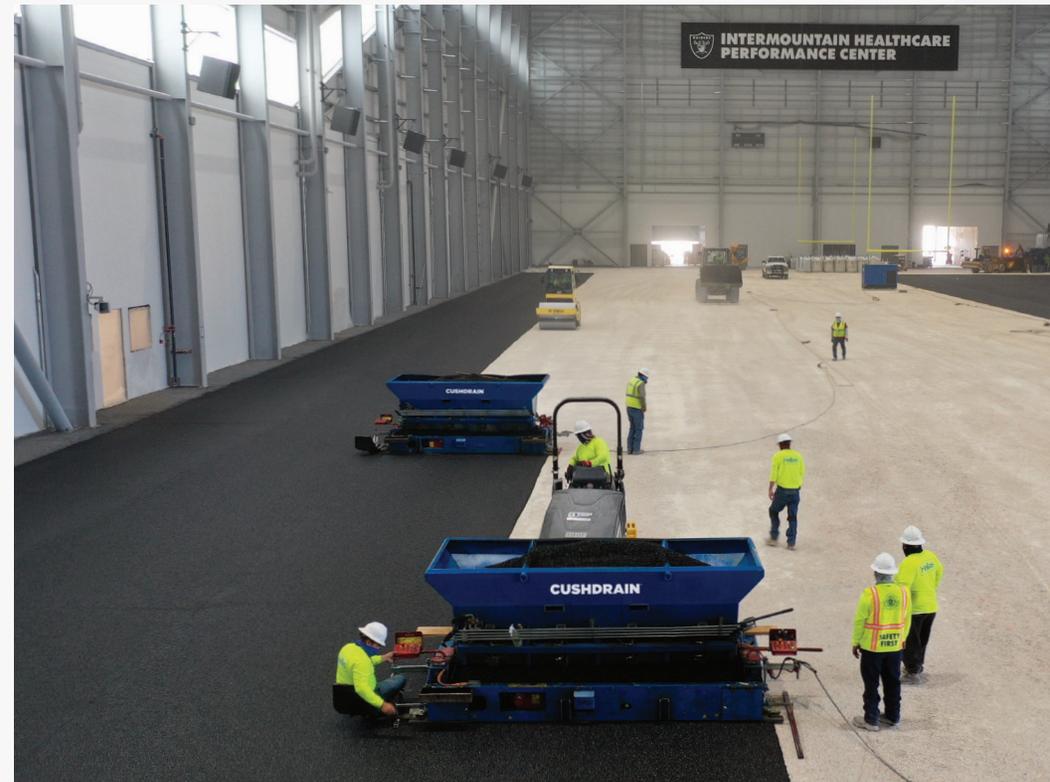
THE **BEST** INVESTMENT FOR THE **SAFETY** OF ATHLETES



WHAT IS CUSHDRAIN®?

CUSHDRAIN pad is an elastic layer paved into place over a laser-graded drainstone foundation for a synthetic turf system to improve a field's drainage and shock absorption (Gmax).

Cushdrain comes in 19mm or 25mm thicknesses and is made of SBR rubber granules, mineral aggregate and a moisture-cured polyurethane binder absent of any toxic components or heavy metals.





WHY CUSHDRAIN®?

- 1** Increases shock absorption upon impact providing a safer sports playing surface.
- 2** Prolongs the performance of the field by providing firm planarity through 3-4 turf lifecycles.
- 3** Provides cost efficiencies by eliminating the need to replace the elastic layer with each turf cycle.
- 4** Reduces downtime caused by heavy rains by improving field drainage.

PROMOTE THE SAFETY OF ATHLETES

A **CUSHDRAIN** shock pad helps protect athletes from injuries caused by hard impacts with a sports playing surface.



INTERNATIONAL GMAX STANDARDS

G FORCES

A linear force to the brain is measured in G's. One G is the acceleration due to the force of gravity.

THE LOWER THE GMAX, THE BETTER THE SURFACE.

ASTM
AMERICAN SOCIETY FOR TESTING & MATERIALS

200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10

▶ **ASTM GMAX REQUIREMENT: UNDER 200 G's**

▶ **EXTREME FOOTBALL IMPACT: 150 G's**

NFL

▶ **NFL GMAX REQUIREMENT: UNDER 100 G's**
PRISTINE NATURAL GRASS: 100 G's

▶ **CUSHDRAIN[®] 19**
GMAX TEST RESULT: 97 G's*

Source: Popular Mechanics
*Cushdrain results provided by Labosport, 2019

UNDERSTANDING SURFACE IMPACTS

Two field tests recognized in the athletic industry to determine impact resilience:

HIGHER CRITICAL FALL HEIGHT = BETTER

Head Injury Criterion (HIC) – is a model created to measure of the likelihood of head injury arising from an impact.

Critical Fall Height (CFH) – is the maximum height from which a dropped E-missile measures a HIC score of 1000. A higher CFH indicates a more shock absorbent surface.

LOWER THE GMAX = BETTER

Gmax – is the measure of the shock absorbency of a sports playing surface. The higher the G-max value signifies the poorer the shock-attenuation performance of the surface and the greater impact on an athlete.

SUPERIOR CUSHDRAIN RESULTS



CUSHDRAIN® 19

CFH
4.0 feet*
(1.21 m)

GMAX
97 G's*

Cushdrain® 25 results: CFH 4.3 feet (1.32m) | Gmax 89 G's*

PRISTINE NATURAL GRASS

CFH 5.6-7.2 feet (1.7-2.2m)

Gmax 100 G's

*Results provided by Labosport, 2019

CUSHDRAIN®

THE **BEST** INVESTMENT FOR THE **SAFETY** OF ATHLETES



INCREASED LONGEVITY

Cushdrain is precisely installed and bound together as a monolithic layer, holding its true form and position over 3-4 lifecycles of synthetic turf.

Cushdrain not only improves drainage of the field which minimizes downtime caused by heavy rains, but its materials make it resistant to rot, mildew, water freeze-thaw and compression set associated with normal athletic field use.

