USGA Green Section FORE THE GOLFER

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Bright white bunker sand is popular with some golfers, but color is important only from an aesthetic viewpoint - it doesn't affect bunker sand performance.

SAND COLOR DOESN'T INFLUENCE BUNKER PLAYING QUALITY

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When watching golf on television, it is not uncommon to see bright white bunker sand that vividly contrasts with dark green manicured turf surrounds. Some may assume that white bunker sand provides the highest quality bunker playing conditions. However, sand color has nothing to do with how a bunker will play.

The most important characteristics for selecting a bunker sand include the size of the individual particles, whether they are angular or rounded, and the rate of chemical or mechanical degradation. High-quality bunker sands quickly drain excess water, pack firmly and resist shifting thereby limiting playability concerns and maintenance expense.

To achieve the best results, bunker sand must be comprised of a combination of particle sizes that are not too fine. It should also have minimal silt and clay. The presence of very small soil particles will hinder



drainage and could lead to crusting at the surface. Sands that are prone to crusting require frequent raking to maintain good playing quality.

It is also important to use a wide range of sand particle sizes. This allows bunker sand to pack together, reducing the risk of buried lies. Equally important for playability is sand shape, with angular sands providing better bunker playing conditions than round sands. Bunkers built with highly angular sands also have less tendency to wash out during heavy rain than those built with rounded sands.

Bunker sand also must be able to withstand physical and chemical weathering. Laboratory testing is always advised to evaluate bunker sand quality and help select the optimum sand for your area. Color is important only from an aesthetic viewpoint, it doesn't affect bunker sand performance.

Acceptable bunker sands are available in many different colors and vary depending on their geological background. They can be mined from beaches and inland dunes or dredged from the ocean floor and river beds. Some bunker sands are even manufactured by crushing larger rock or coarser sand particles to specific particle sizes. Although most bunker sands range from white to brown, other unique sand colors do exist including red, pink, orange, purple, green and black.

Gradual changes in bunker sand color are common over time as soil particles and organic matter begin to contaminate the sand. Sand becoming noticeably darker in color is an indication that renovation may be necessary to maintain playing quality. Bunker design and construction techniques play a major role in how quickly sand contamination and breakdown occurs. New bunker construction techniques that incorporate permeable liners can improve overall bunker performance and increase the longevity of a given bunker sand.

Bunkers have the potential to provide extremely high-quality playing conditions when laboratory testing, sound design and modern bunker construction methods are utilized. Sand color does not impact bunker performance, so this variable should be far from at the top of the list when selecting a bunker sand.