



FREQUENTLY ASKED QUESTIONS

“Better Billy Bunker”? Why the interesting name?

Billy Fuller was the superintendent at Augusta National Golf Club in the 1980's. It was there that he developed a method of bunker construction technically referred to as the “Enhanced Bunker Drainage Method”. As more and more golf courses utilized this method, it simply became known in the industry as “Billy Bunker” in a nod to its developer.

What makes the current method “Better” than the original Billy Bunker?

The original Billy Bunker specification called for a 2” layer of pea gravel covering the entire floor of the bunker. To separate this gravel layer from the bunker sand, a geotextile fabric liner was used. While the method was tremendously successful, over time the possibility increased that fabric liners could become exposed and torn, thus risking contamination of the bunker sand. To alleviate this potential issue, we eliminated the fabric liner. A specialized polymer was developed that could be applied over the pea gravel layer which binds the layer together while allowing it to maintain its porosity. Thus, exposed and torn fabric liners became a thing of the past.

Pea gravel in bunkers? Why?

By placing a layer of pea gravel throughout the entire floor of a bunker, a conduit to carry water to the drainline is created. During rain events, water would normally have to travel through the bunker sand to reach a drainline. This increases the likelihood for the bunker sand to reach its field capacity and sluff (washout). The Better Billy Bunker drainage layer allows water to “unload” from the bunker sand and travel through the gravel to the drainline. This minimizes and often eliminates washouts of bunker sand during rain events.

Other than minimizing washouts, are there other benefits of the BBB method of construction?

Yes! The durable drainage layer also provides protection from contamination of bunker sand from underneath because the sand does not come into contact with the subsoil base. Contamination of bunker sand – from washouts or upward migration of materials underneath the sand – is the #1 cause of poorly performing bunkers.

Will the BBB layer be hit by golf clubs?

During construction, bunker sand will be installed at a depth that ensures no golf club can reach the drainage layer. Because bunker sand stays in-place during rain events, the likelihood of sand ever getting thin enough for a club to make contact with the BBB layer is minimal. Further, each golf course maintenance team receives a depth tool which will be used to routinely check sand depths. In the highly unlikely event that a club were to ever come into contact with the BBB layer, it will simply bounce off (unlike the potential for snagging a fabric liner).

How many courses have installed Better Billy Bunker?

We are approaching 1,000 golf courses who have installed Better Billy Bunkers. These include Tour and major championship hosts as well as numerous Top 100 facilities.

How does Better Billy Bunker perform in locations prone to freezing and thawing?

When cured, the polyurethane binder used in the BBB method maintains some flexibility. This movement is important in regions where freezing and thawing occurs and has been essential to the success of BBB in some extremely harsh climates.

Are there any temperature restrictions for the application of the Better Billy Bunker polymer?

No. Better Billy Bunkers can be installed year-round, with numerous installations having taken place when temperatures were below freezing.

Will BBB make my bunkers more consistent?

Yes. Because of the virtual elimination of washouts, there will not be a need to shovel sand back into place after rain events and sand depths will tend to stay very consistent. However, as with all other areas of a golf course, each bunker is located in its own micro-climate. Bunkers that receive full sunshine will tend to dry out quicker than those receiving shade most of the day. Some minor tweaking of sand depths by the agronomy staff may be necessary to achieve as much consistency as possible. "Perfect" bunkers are a moving target and outside factors (wind, rain, sun, clouds, temperature, humidity, etc.) will always have an impact on conditions.

How soon after polymer application may bunker sand installation take place?

Assuming a bunker has been quality controlled by a BBB Licensed Installer, bunker sand may be installed as soon as 24 hours after polymer installation.

Will bunker sand migrate down through the BBB layer?

No. Prior to every project, test results from an accredited soil laboratory are submitted to Better Billy Bunker, Inc ensuring that the gravel and sand meet the "bridging" criteria. This is the same test that has been used in USGA greens construction for years.