



THE LOGICAL **CHOICE FOR BUNKER PROTECTION**

sandtrapper.com

STILL LEADING THE WAY

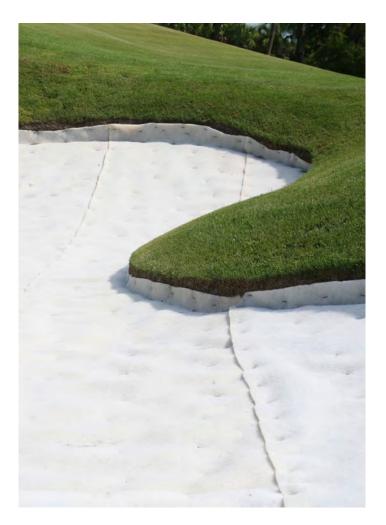
The Sandtrapper product line has been the the product of choice for almost 20 years. With its consistent specification, product performance, longevity, and return on investment calculus, our products deliver the best in bunker protection at the best value. With over 90,000,000 square feet installed at over 8,000 facilities around the world, Sandtrapper is truly the leader in bunker protection.

SANDTRAPPER ADVANTAGE - COST

Dollar for dollar, Sandtrapper provides greater quality materials and binders while maintaining stringent control over specification tolerances. Compared to other bunker management solutions, Sandtrapper delivers the best price/value relationship.

Other options such as hardscapes and can price out more than two to three times than that of Sandtrapper. Additionally there are no hidden costs with Sandtrapper. This can be an issue with hardscape solutions should the locally available aggregate not meet spec and require aggregate from other areas at greater cost.

Turf professionals know that the cost to implement Sandtrapper makes it an easy, intuitive decision. When considering other bunker renovation line-items, the cost of Sandtrapper makes the bunker investment more secure, with greater recuperation of costs through reduced on-going maintenance.





SANDTRAPPER ADVANTAGE - INSTALLATION

When considering any bunker protection solution, it is always important to understand the details of installation and what factors may be problematic. With Sandtrapper, installation has always been a simple, intuitive process. No special tools are required. No special conditions are necessary.

From the beginning, we've always provided basic guidelines that are easy to follow and help produce the best result. With Sandtrapper, installation can be performed by internal staff and don't require specialized installers. This is especially important for many facilities that choose to tackle a few bunkers at a time as their schedule and budgets permit.

One convenient advantage is that the weather won't hamper Sandtrapper installation. Temperature and humidity don't impact Sandtrapper projects. With hardscape solutions, the moisture level of the aggregate can prevent installation and stall a project for days or weeks. Curing of hardscape also can hamper schedules.

With Sandtrapper, you can immediately unload sand once the product is secured.

SANDTRAPPER ADVANTAGE - PLAYABILITY

Over the last 16 years, we've seen countless projects undertaken. Even though each project will have slightly different adaptations, one factor has remained constant -- low disruption to play. With Sandtrapper, bunkers can be prepped, liner installed, and sand unloaded in a very reasonable amount of time.

Disruption to play is often overlooked when beginning a project, but can quickly become a major focus of complaints by golfers. When installation is more complex, with more rigid requirements, the disruption can be quite significant.

LONG HAUL PERFORMANCE

Since 1997, the Sandtrapper product has been installed in thousands of courses worldwide. For these facilities, they are able to combat washouts and sand contamination over the long haul while delivering a rapid return on investment.

Traditionally, most bunker projects had a life-cycle of 5 to 7 years, requiring excavation, drainage systems and sand

replacement. The use of Sandtrapper extends the life of a bunker to more than 10 years. We even have some of our first customers relying on the product today, when it was installed over 20 years ago.

CONSIDERING PRODUCT SELECTION

During the development of the Sandtrapper product back in the late 1990's, considerable analysis was performed on the mechanics of water flow in bunker settings. The result was a specific selection of synthetic fibers and binders to create precise product characteristics that combat washouts or contamination. This resulted in two introductory styles -- Sandtrapper II (our premium performer) and Sandtrapper I.

Over the years, we've made additions to the product line-up. In 2004, we added a contamination-only choice with Sandtrapper GEO. In 2007, we added Sandtrapper MD as a mid-range choice to fit between, Sandtrapper II and I. In 2011, we added Sandtrapper SL, a divergent technology for those looking at soft-loft product alternative.

Facilities continue to install the premium product choices over the more value-based options by a margin of two to one. At Sandtrapper, we believe that this confirms a common paradigm -"Do the Job Right the First Time".

Review the characteristics of the product line-up, request samples for comparison, and consult with our product advisors for help in making the product choice for your project.

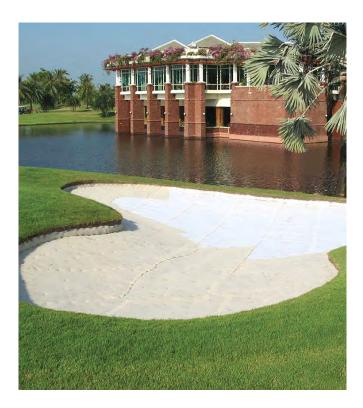
ORDER PROCESSING & DELIVERY

We believe that working with us on your product needs should be a simple, easy process. That's why our entire order processing system and network of distribution points is set-up for speed and efficiency. Ever since the inception of the product line-up, we've always had inventory ready to go.

Over the years, this philosophy has served the industry well. No three week waiting periods for material to be manufactured and no uncertainties when loading trailers and getting them on the road. In fact, we've seen many examples of order turnaround of just a few hours when critical demands require next day delivery.

Many in our network of distributors also hold inventory that can be moved on-demand as well. Consult with the distributor in your area for more information (visit sandtrapper.com).





RENOVATION REALITIES

Low maintenance bunkers don't have to be elusive. With a well-researched plan and the best product solutions, facilities can, in fact, have bulletproof bunkers. Additionally, this objective doesn't have to kill your budget or force your improvement schedule into chaos.

Twenty years ago, we launched Sandtrapper in what was an industry void of a Bunker Management category. We've seen companies come and go since then. We've seen all manner of solutions. In the end, it is about providing products that work and doing so at the right price-point. When it matters, it is about reliability in product, service, and logistics — from a trusted industry partner.

When it comes to investing in your facility, capital improvements that have a rapid return-on-investment and significantly reduce maintenance labor and repairs cannot be ignored. Over the last 20 years, IVI-GOLF has helped deliver these savings. We know and understand the challenges and have a reliable product line-up that delivers results.

WHO IS IVI-GOLF?

IVI-GOLF (a division of Indian Valley Industries, Inc.) has commonly been synonymous with Sandtrapper. We continually apply the same synergies of product, service and support to the Golf Division as we've used company-wide since 1940.

Indian Valley is vertically integrated supplier to a wide range of industries, including environmental protection products and supplies to the heavy construction industry.



SPECIFICATIONS

The Sandtrapper product line represents the best choice for improving bunker performance. It's been installed in thousands of course worldwide and is a trusted solution of golf course professionals at all levels. With a wide range of product options, Sandtrapper gives you the ability to choose the right product for your project.

Physical Property		MD	
Color	Opaque	White	White
Weight - oz sq yd/kg sq m(lbs/roll)	16 / .376 (75)	12 / .284 (100)	6 / .142 (70)
Thickness (mm)	15	14	7
Fiber Type	Polyester	Polyester	Polyester
Binder	Cross-Linking Non	Cross-Linking Non	Cross-Linking Non
Area Per Roll - 56" (1.42m)	560 ft ² (51.93m ²)	1120 ft² (104.5m²)	1120 ft² (104.5m²)
Area Per Roll - 90" (2.286m)	1125 ft² (106.8m²)	1350 ft ² (125.42m ²)	1800 ft ² (167.22m ²)
Total December (Mathed	777		
Test Description/Method			
Trapezodial Tear (MD) D4533	40.5 lbs	30 lbs	24.0 lbs
Trapezodial Tear (XD) / D4533	38.7 lbs	31.5 lbs	18.0 lbs
Tensile Strength (MD) / D4632	59.4 lbs	51.5 lbs	44.5 lbs
Tensile Strength (XD) / D4632	51.6 lbs	50.1 lbs	35.5 lbs
Elongation (MD) / D4632	87.3 %	99.3 %	83.4 %
Elongation (XD) / D4632	88.9 %	95.2 %	135.1 %
Mullen Burst Strength / D3786	149 psi	170 psi	118 psi
Mullen Burst Strength / D3786	98.5 psi	119.5 psi	68 psi
Permittivity / D4491	7.22 sec-1	5.92 sec-1	5.94 sec-1
Permeability / D4491	14.01 cm/sec	7.06 cm/sec	4.46 cm/sec
Water Flow Rate / D4491	567.27 gpm/ft2	464.88 gpm/ft2	466.77 gpm/ft2
Transmissivity / D4716	3.92 x 10-3 m2/sec	1.38 x 10-3 m2/sec	5.46 x 10-4 m2/sec

The above tables represent the core properties and characteristics of the Base Sandtrapper Product Line. The ASTM tests were performed by an independent, third party. The test results show the average based on five separate and random samples taken from a product roll. Consult your Sandtrapper Product Specialist to review the full line-up of product options.



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