

Frequently Asked Questions

1) Q. What is the open area of ShoreFlex® and why is that important?

A. ShoreFlex® is designed with a 30% open area to facilitate vegetation growth.

2) Q. Which product is appropriate for my application?

A. The Hydraulic Engineering Circular (HEC RAS) determines if ShoreFlex is applicable for your application by analyzing the hydraulic conditions with ShoreFlex's permissible shear and calculating the safety factor. The HEC RAS is available for download here.

3) Q. What sizes does the ShoreFlex® mats come in?

A. ShoreFlex is offered in a wide variety of sizes to fit your specific needs. Most commonly ShoreFlex will be sold in 8'x 32' mats, but custom sizes are available upon request.

4) Q. What is maximum velocity ShoreFlex® can handle?

A. Current Federal design procedures utilize bed shear stress for primary stability analysis. This approach takes into consideration: velocity, depth of flow, and energy slope gradient to determine how much hydraulic energy (bed shear) is incident on the ShoreFlex mats. ShoreFlex has been flume tested to withstand shear stresses of 18lb/ft² and velocities of 30 ft/s.

5) Q. Which erosion control underlayment is best to use under ShoreFlex®?

A. The type of erosion control underlayment should be chosen based off of site specific needs. Different projects may require different levels of erosion control underlayment and each job site should be evaluated independently.

6) Q. How strong is the geogrid that holds the concrete blocks together?

A. The geogrid that is used to connect the concrete blocks together is a high strength low elasticity polyester geogrid with a 2,000 lb. breaking tensile strength in both directions which allows for maintenance equipment and vehicular traffic.

7) Q. How do you connect adjacent ShoreFlex® mattresses at the sides?

A. ShoreFlex® will be installed in a shingling configuration. The downstream mat perpendicular to the flow of water shall be laid a minimum of 18" underneath the upstream mat. The mats will then be connected together via the 18" ground staples.

8) Q. Do I need to be concerned about the geogrid deteriorating?

A. The polyester geogrid is designed for a minimum 25 year life expectancy and in most cases will be protected by and incorporated into the vegetation that grows onsite.

9) Q. What is the maximum slope ShoreFlex® can handle?

A. 2:1 slopes are the preferred limit. However, steeper slopes, up to 1:1, can be designed providing a proper slope stability analysis has been performed.

10) Q. How fast can ShoreFlex® be placed?

A. ShoreFlex® comes delivered in a roll for easy install. Most small equipment can easily handle and install the ShoreFlex® rolls allowing for quick installation time. ShoreFlex® can also be cut onsite to avoid trees or other objects to further expedite installation.

11) Q. How much does ShoreFlex® cost?

A. Depending on the quantity of Shoreflex® and type of erosion control backing, Shoreflex® is competitive with other similar systems. Please contact your distributor for exact pricing.

12) Q. How do you handle upstream and downstream terminations?

A. ShoreFlex® terminations, both upstream and downstream will be trenched in a minimum of 18" perpendicular to flow to ensure permanent placement and proper hydraulic functionality.

13) Q. How do you anchor the ShoreFlex®?

A. Anchoring ShoreFlex® can be accomplished by several different methods depending on the design objective. Most common methods utilize galvanized steel helical or duckbill anchors. Attachment to ShoreFlex® will be accomplished via the lifting/anchoring loops that are incorporated in the concrete blocks. CAD details for anchoring are available from Premier Concrete.

14) Q. How do you determine when mechanical anchors are necessary?

A. Mechanical anchors are used on steeper slopes or when an extra safety factor is desired.

15) Q. What subgrade compaction is required?

A. 95% standard proctor within +/- 3% of optimum moisture content is the normal requirement for fill embankments. Existing compaction of undisturbed soils is sufficient provided they are stable soils and do not exhibit "yielding" of soft areas.

16) Q. Can you drive on ShoreFlex®?

A. ShoreFlex® is capable of handling maintenance equipment and light vehicular traffic. ShoreFlex® can be maintained with both industrial and smaller sized mowers.

17) Q. How do you handle obstructions and curves? (How do you install ShoreFlex® around pipes?)

A. Several CAD details are available in our Technical Manual and available for download on our website. ShoreFlex® will come to the jobsite rolled for ease of install and placement. ShoreFlex® can be cut onsite to avoid any obstacle that may be in the installation area. ShoreFlex® also comes in multiple widths and lengths to help accomplish any curve or turn that the application site may have.

18) Q. Do you need to fill and seed ShoreFlex®?

A. Site seeding is optional and is up to the discretion of the owner. ShoreFlex® can be installed over both seeded and unseeded soils and vegetation will still occur. Seeded soils will typically vegetate faster but is not necessary to accomplish natural vegetation growth through ShoreFlex®.

SHOREFLEX®
Permanent Erosion Control Solutions

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