

SC-Virgin™ Submittal Data

SC-Virgin™ is a clay material used for Storm Water Management compliance as pond liners, cut-off trenches, and core trenches.

Stabilization Process (not applicable if Virgin)

The term “Hybrid” is used due to the presence of two stabilizing chemical agents; cement and lime. The materials exact percentage is calculated based on the soil and aggregate characteristics during the processing procedure and the end use of the material.

Cement provides the permanent stabilization characteristics, while the lime stabilization adjusts the material to it’s best natural moisture percentage for processing. The advantages of this “Hybrid” process ensure complete encapsulation and stabilization in addition to one time placement. Lime stabilizing agents generally must be aerated and re-compacted (this period is called “proofing”). The SC-Hybrid™ does not require this process due to the testing process at the facility. This “Proofing” chemical reaction also slows down the pozzolonic reaction of the cement; thus providing a delayed initial processing strength gain. This is why the material can be re-handled without concern for re-compacted strength loss.

Geotechnical Information

Geo-Technology Associates, Inc. (GTA) has performed an evaluation of the SC-Virgin™ for use as a pond liner and core trench material (compliance with MD-378). Testing method ASTM D-422, the material was found to be a low plasticity clay (CL) in accordance with the Unified Soil Classification System (USCS) and exhibited a natural moisture of 17.2% and an optimum moisture of 17.5%.

USCS classifications provide information regarding soil behavior. The typical results of the testing were as follows:

SUMMARY OF LABORATORY TESTING

| BORING NO. | USCS CLASSIFICATION | AASHTO | Passing No. 200 Sieve, % | LL % | PI % |
|----------------|--------------------------|--------|--------------------------|------|------|
| Typical Sample | Low Plasticity Clay (CL) | A-6 | 77.7% | 30 | 15 |

Note: LL=Liquid Limit PI=Plastic Index NP=Non-plastic

For questions regarding the Geotechnical data and design herein, please contact Scot Gordon, P.E. of GTA at 301-638-3094.

1 GTA is not affiliated with SmartSite, LLC and provides independent third party testing and consulting.

2 Costs resulting from inquiries shall be paid by the customer that result in time and testing costs incurred by GTA.

FAQS; Frequently Asked Questions

Q1: Is the material available without advance notice?

A1: Most of our virgin core materials must be ordered in advance (2-3 days). Hybrid materials are usually available on a first come basis.

Q2: Where does the Hybrid material come from?

A2: **SC-Hybrid™** is processed by Soil Safe, Inc. at their Brandywine, Maryland facility. Soil Safe recycles construction materials from petroleum contaminated soil and aggregate materials. This recycling process prevents the burning or land-filling of valuable construction materials that are diverted from the waste stream while preventing natural resource extraction. This process is regulated by MDE and is performed in accordance with Permit #2003-OPS-14480C.

Q3: How can you tell that the material has been processed correctly?

A3: Because the **SC-Hybrid™** is stabilized with both cement and lime the material will not be plastic (NP). This means that the material will not roll in your hand (like a standard clay test).

Q4: Is this material LEED Certified?

A6: The **SC-Hybrid™** is an environmentally friendly material, but LEED certifies green projects, not materials. As members of The United States Green Building Council (**USGBC**), we can help you apply for your project's LEED recognition.



The U.S. Green Building Council is a nonprofit membership organization whose vision is a sustainable built environment within a generation. Its membership includes corporations, builders, universities, government agencies, and other nonprofit organizations.

