



SoilTain® Protect

Geosynthetic Flexible Ballast Layer



Protecting your primary barrier is key



Due to a large volume of research and practical experience, the placement of ballast layers on top of a primary geomembrane barrier has internationally become common practice.

Field research presented by Msiza and Shamrock (2014) clearly shows a reduction in the mechanical and performance properties of exposed geomembranes. Through eliminating UV and thermal exposure of geomembranes, the depletion of anti-oxidants out of geomembranes is slowed significantly, thereby extending the expected service life of the geomembrane (Rowe et al, 2013).

Msiza, J. & Shamrock, J. (2014). What is UV Radiation Exposure and Heat doing to your Liner? Proceedings of the 20th WasteCon Conference.

Rowe, R.K., Abdelaal, F.B. & Brachman, R.W.I. (2013). Antioxidant depletion of HDPE geomembrane with sand protection layer. Geosynthetics International.

Causes of liner damage

When/Where	Amount	Details	Amount
Liner installation	24 %	Extrusion	61 %
		Melting	18 %
		Stone Puncture	17 %
		Cuts	4 %
Covering	73 %	Stone Punctures	68 %
		Heavy Equipment	16 %
		Grade Stakes	16 %

Extract from statistics of liner damage (Peggs 2003).

Peggs, I. D. (2003). Geomembrane Liner Durability: Contributing factors and the status quo. UK IGS.

Issues with traditional ballast layers:

Large volumes of construction traffic are required to construct traditional ballast layers. It is a known fact that up to 80% of all primary barrier damage occurs during the placement of covers over geomembranes.

Additionally, through the importation of soil or the placement of concrete, valuable storage volume is lost.



SoilTain Protect – Safe and efficient protection

SoilTain Protect is an innovative geotextile containment system manufactured utilizing state-of-the-art weaving technology, which provides a tubular system interconnected into a singular geosynthetic mattress configuration. SoilTain Protect must be utilized wherever it is required to avoid solar and UV exposure on geomembranes.

This HUESKER solution reduces construction time, construction and operational risk, construction and operational cost and contributes to the economic, environmental and social sustainability of containment operations.



SoilTain Protect – Filling operations on bases

SoilTain Protect unique benefits:

- Eliminates heavy construction equipment on top of primary geomembranes
- Eliminates greatest threat to liner integrity
- Enhances site safety significantly through reduction of construction traffic
- Increases storage space due to utilization of waste (e.g. tailings, coal ash) inside the protection tubes
- Protects your environmental investment safely and efficiently

Patent pending

CONTACT

To learn more about HUESKER's SoilTain Protect please contact us and visit www.HUESKER.com

SoilTain® is a registered trademark of HUESKER Synthetic GmbH.
HUESKER Synthetic is certified to ISO 9001, ISO 14001 and ISO 50001.



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