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New geomembrane selection matrix

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What is a geomembrane? And if I need one, which one could I use for my project?

Even today, with all of the technical information available on geosynthetics, this question comes up often, usually asked by, not only design engineers, but project owners and regulators as well.

To simplify the selection process for a given application, an interactive selection matrix has been developed as both an educational tool and a guide for selection by the Fabricated Geomembrane Institute (FGI). This matrix will be updated periodically.

The following components are shown on the matrix:

1. **Geomembrane polymers:** The polymeric types of geomembranes shown represent the most common types of geomembranes currently available.
2. **Ranking system:** Yes—acceptable for that particular property; Possible—the material could be used with more investigation or testing and manufacturer's approval for the specific application; NR—the polymer material is not recommended.
   The current rankings in the selection matrix are based on industry data, literature references, and professional opinions of FGI reviewers.
3. **Properties/attributes:** The matrix lists 31 properties or attributes that can be referenced in the design process.
4. **Current standards:** These ASTM or GRI standards are specific to the polymer group shown and provide a detailed standard specification that should be referenced and reviewed in the selection process.
5. **Interactive properties:** Users can click on any of the properties/attributes for more details on a specific polymer, property, or test method.

These are the basic elements of this geomembrane selection matrix that can be used in the selection of a geomembrane polymer type for a wide range of applications such as solid-waste containment, wastewater ponds, tailings impoundments, coal-ash ponds, oil exploration and cleanup, potable water containment and protection, canals, and dam facings.

The matrix is polymer-based and is designed to narrow the search for alternative types of geomembranes that could be suitable for a specific application or project. The matrix is also an educational tool by providing insight and definitions for attributes, properties, and test methods.

The matrix will be reviewed and updated as new polymer materials become available, and when additional properties or attributes are added for the selection process.

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Comments

There are not yet any comments.